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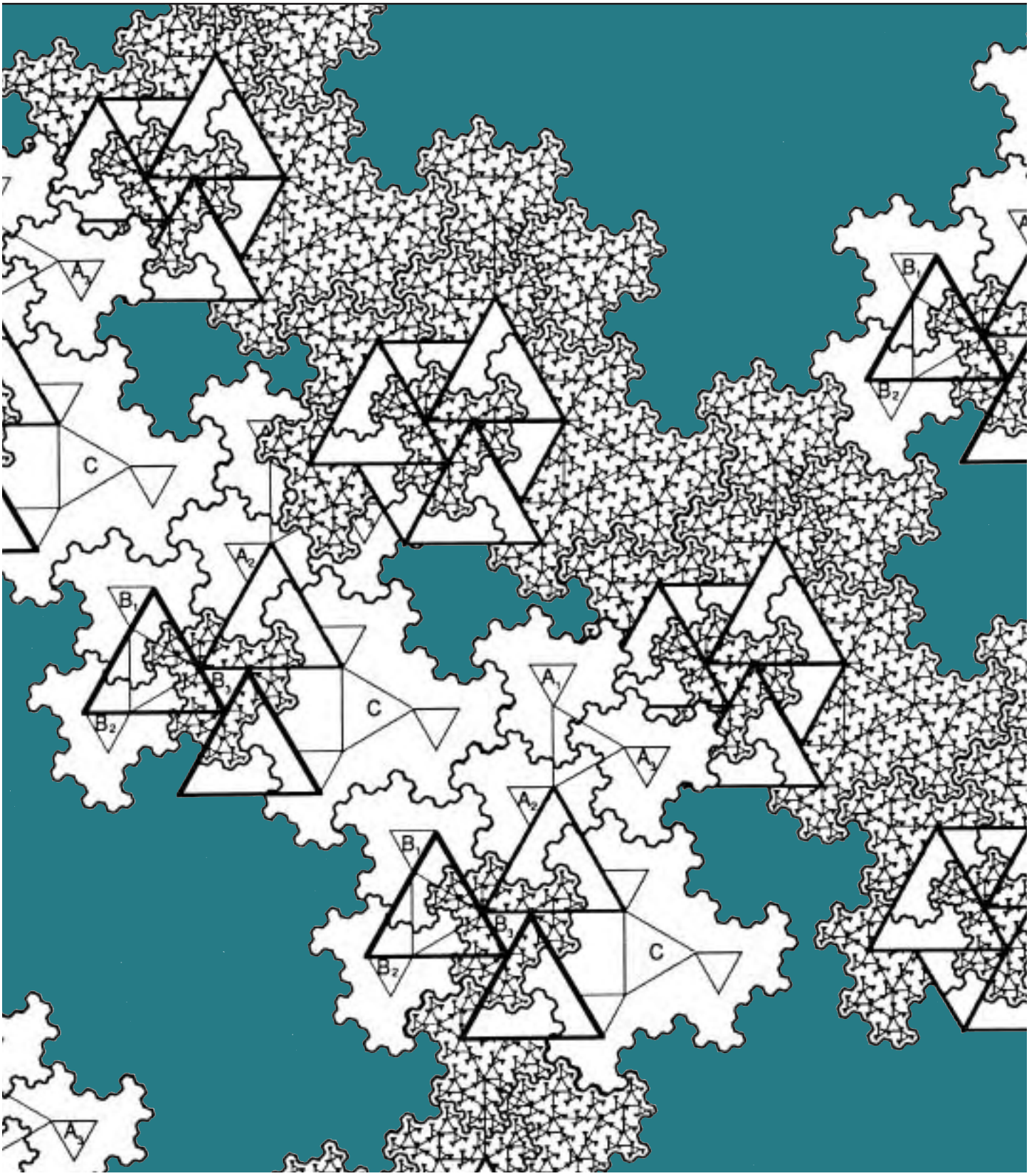

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Evaluating a New Mathematics Curriculum:
A District's Multi-Stakeholder Approach

Neal Grandgenett, Ph.D., University of Nebraska
Roberta Jackson, Ed.D., Westside Community Schools,
Connie Willits, M.S., Loveland Elementary School
Omaha, Nebraska

ABSTRACT:
Selecting a new curriculum and determining whether it will be an effective addition to the district's instructional efforts can be one of the most challenging leadership tasks facing the district mathematics supervisor. This article describes a structured curriculum adoption and evaluation process undertaken by the Westside Community Schools in Omaha, Nebraska, in collaboration with the University of Nebraska at Omaha. The curriculum evaluation process reviewed a new mathematics program being undertaken within the district that incorporated direct feedback from students, teachers, and parents. The evaluation strategies included a field test process involving three distinct field test groupings, with three matched control groups, to examine standardized test scores from 425 students. Surveys from 132 teachers, 596 parents, and 2,172 students were used within the comprehensive review process. The evaluation process appeared to work well for examining the impact of the new program and results confirmed that a full curriculum implementation was warranted in the 2003-2004 school year.

Supervisors of mathematics are often involved in leading the adoption of a new mathematics curriculum and then evaluating the effectiveness of that curriculum. Determining whether a new curriculum is an effective addition to the district's instructional efforts can be one of the most challenging leadership tasks facing the district mathematics supervisor. Balancing the input of parents, teachers, administrators, textbook companies and even the community at large is often difficult since all of these participants in the decision making process may have strong opinions related to the adoption process and its potential outcomes. Many supervisors of mathematics find that an open, careful, and data-driven pilot testing strategy is critical in such a context and helpful for later support of the new program as it is fully implemented.

Since the National Council of Teachers of Mathematics (NCTM) standards were first released in 1989 (NCTM), and with the more recently published Principles and Standards for School Mathematics document released in 2000 (NCTM, 2000), many schools and districts have carefully reviewed and attempted to reform their mathematics curriculum. The vision for such reform is founded upon the ideas that mathematics instruction should be dynamic, interesting, and relevant to students (Romberg, 1998; Royer, 2003; Schoenfeld, 2002;).

As school districts have sought to revise their mathematics programs to better meet the NCTM vision, they have struggled to find curriculum resources and materials that can truly meet their individual needs. This is rarely an easy task for a district. In fact, unfocused and poorly planned district curricula have been theorized by studies within the 1990's, such as the Third International Mathematics and Science Study, to be an important reason why American schools sometimes lag behind our international peers at some grade levels (McLeod, 1995; Sawada, 1997; Valverde and Schmidt, 1998). With these studies as a context, many curriculum initiatives (such as several funded through the

National Science Foundation) have sought to better meet district needs and produce instructional materials that are more in line with the national reform efforts in mathematics education. Districts around the country have often tried to directly link their mathematics reform process to new curriculum materials. However, these adopted programs are rarely evaluated after their initial implementation, and thus their actual effectiveness for districts is not well understood.

The lack of formal curriculum evaluation is not surprising given the challenge of conducting a thorough evaluation process within a school setting. Such evaluation efforts are typically quite difficult because they need to consider the complexity of the classroom where a wide range of extraneous variables can be attributed to encouraging temporary rather than lasting effects (such as the novelty of a new curriculum, etc.). Careful curriculum evaluation designs usually take considerable work and careful planning and do best when targeting a variety of stakeholders, including teachers, students, and parents (Goldsmith, Mark, Kantrov, 2000).

This article examines the systematic curriculum evaluation process used by one district, the Westside Community Schools in Omaha, Nebraska, as it carefully adopted and reviewed a new elementary mathematics program. The curriculum evaluation process was facilitated within the context of a strong leadership effort undertaken by a district lead teacher, a district curriculum supervisor, and a university professor, working collectively to involve all important stakeholders in the process.

Adopting a New Mathematics Program

The Westside Community School District is an urban school district of approximately 5,200 students, 1,200 of whom are not residents of the district, but rather attend through Nebraska's school choice program. The District has a K12 curriculum with ten elementary schools (grades K-6), one middle school (grades 7-8), and one high school (grades 9-12). The elementary schools where the new mathematics program was adopted and examined ranged in size from 133 to 412 students. The previous mathematics program used by the district was *Math in Our World* from Harcourt, Brace, and Jovanovich (1996).

The program adopted by the district was called *Everyday Mathematics* which is published by the Everyday Learning Corporation (2002). This program appears to be both dynamic and challenging, with hands-on elements, integrated problem solving strategies, and numerous extension activities. The company website describes the program as a K-6 enriched mathematics curriculum, developed by the University of Chicago School Mathematics Project, that empowers students and teachers to understand mathematical content far beyond arithmetic. Its reputation across the midwestern states is relatively well established, although there have been differing perceptions of the curriculum and its utility for various districts and ability groups of students. The national press has reported on various communities who have struggled with a range of differing local perceptions of the program. Given the importance of having good instructional resources in their mathematics classrooms, Westside decided to undertake a formal evaluation of the new curriculum in a limited number of classrooms before full implementation of the program within the 2003-2004 school year.

YEAR 1

The district adoption of the new program, *Everyday Mathematics*, was actually a two-year process. It began with the selection of a district "Curriculum Review Committee" which was empowered to examine potential new mathematics programs. This committee was composed of elementary, middle, and high school teachers, and representatives from gifted education, early childhood, and special education programs, along with several administrators and parents. In all, about 25 people routinely attended the committee meetings. Other contributing personnel included a university mathematics education professor and a mathematics specialist from a local educational service center.

During the first year the Curriculum Review Committee met one day a month and initial activities (of the adoption committee) included a review of current educational mathematics publications, and the NCTM's Principles and Standards for School Mathematics (2000). In addition, an extensive packet of research articles describing the best practices in mathematics instruction was distributed to the committee. The time together was spent discussing the material to create a common understanding of its meaning. It helped to define a clearer vision for the committee of philosophy and beliefs for mathematics education. The committee also examined existing data of test scores to review the district's current level of performance in elementary mathematics. A survey of all elementary classroom teachers and students was designed to help determine current practices and student perceptions relative to mathematics.

By the end of the first year, the committee had developed a personalized rubric that they used to evaluate potential new curriculum programs and represent their philosophy of good instruction as reflected by NCTM's Principles and Standards for School Mathematics (2000). The committee examined numerous textbook series and supporting materials. The process was both invigorating and draining, as the committee met frequently, within long, systematic, and spirited review sessions. By the end of the year, based on their examination of various commercial curricula, and their review of current mathematics research and practices, *Everyday Mathematics* seemed to best fit the expectations of the committee members. A plan for piloting this program to further review it was then initiated for year 2 of the adoption process.

YEAR 2

The second year of the adoption process was devoted to the formal pilot testing of the *Everyday Mathematics* materials. A total of 24 classrooms, representing all district schools and all grade levels, were selected to use and evaluate the curriculum. The teachers on the Curriculum and Review Committee made up the majority of these piloting classrooms. Throughout the year the Curriculum and Review Committee continued to meet and reflect upon anecdotal observations.

This pilot testing process was essentially an "impact analysis" that was found to be common for the review of new curriculum programs. In such evaluation studies, impact analysis can be defined as "determining the extent to which one set of directed human activities affected the state of some objects or phenomena, and . . . determining why the effects were as large or small as they turned out to be" (Mohr, 1992, p.1). The study examined the consistency of several sources of data in what is often called a triangulation of information process. The field test used three sets of matched classes of students and also examined achievement test scores; student, teacher, and parent surveys; and teacher focus groups. This field testing process is fairly useful in the careful evaluation of curriculum programs and has been used successfully by other organizations (Adams, 1999; Kulm, 1999), and is similar to curriculum evaluation strategies recommended by various researchers (Manouchehri & Goodman, 1998; McNeely, 1997).

Throughout the evaluation and pilot testing process the Curriculum and Review Committee teachers played a key role and continued to meet. The committee was chaired by an elementary mathematics specialist (lead teacher) who had been released for two years from classroom teaching responsibilities to devote full-time to this leadership role. The responsibility of the committee actually went beyond the selection of new mathematics materials. Through this program adoption, they were in charge of reforming the mathematics education program. Their ongoing involvement allowed them to grow in the areas of mathematics education and pedagogy. Over the two years' time, their responsibilities and interests typically evolved into leadership roles in mathematics curriculum and instruction. They helped to develop tentative plans for implementation, provided training for teachers, and developed surveys to help get teacher and parent perceptions. Before the completion of the two years, the teachers of the committee had refined their long-term goals for the mathematics curriculum. They essentially became the managers of a new district vision for mathematics instruction to be represented by the new curriculum.

Looking at Student Achievement

In order to realize Westside's vision for mathematics instruction as represented by the new curriculum, it was felt by district administrators that standardized test scores had to be a part of how the curriculum was evaluated. In today's educational environment educators and the community at large are quite interested in standardized achievement scores and how those scores appear to be impacted by different educational strategies. The district was thus very interested in having their standardized tests scores (those related to mathematics achievement) be included as a focused component of the overall data examined. In this field test, several standardized test scores were available for examination through their traditional use in the district, and included the Stanford Achievement Test (9th edition), and the Otis-Lennon School Ability Test (OLSAT). The Stanford Achievement Test measures mathematics problem solving and mathematics procedures in two different subtests at six different elementary levels. The Otis-Lennon School Ability Test strives to measure a student's general thinking skills as well as help identify some relative strengths and weaknesses in their reasoning strategies. Both standardized instruments were considered to be good operational measures of the mathematics-related achievement targeted by Westside when adopting a new mathematics program. Together, these tests could address both basic skills and higher order thinking. Scores for the 1999 and 2000 school year were used as a baseline measure (before program initiation), and scores for the 2001-2002

school year (after one or two years of program use), were collected to examine potential differences. Classes of students who had received the *Everyday Mathematics* program for two years and for one year were compared to students who had not been exposed to the program.

The field test groups were carefully selected to provide groups as equivalent as possible for the overall data analysis. Criteria included free and reduced price lunch participation and gender. Three groups were eventually selected.

- **Comparison Group 1:** Students from two schools who received the program as third graders (n=26) were compared to a random sample of third grade students from similar schools who had not had the program (n=63).

- **Comparison Group 2:** Students who experienced the program for two years, in grades four and five (n=51) were compared with fourth and fifth grade students from a similar school who had not yet had any exposure to the new mathematics program (n=37).

- **Comparison Group 3:** Students from five schools who had the program as fifth graders (n=137) were compared with a similar group of students from four schools in which the program was not used in grade five (n=131).

For each of the three comparison groups, three dependent variables were investigated: the SAT 9, including the Total Math percentile rank; the Problem Solving Subtest percentile rank; and the Procedural Mathematics subtest percentile rank score. These statistical runs used a variety of parametric and non-parametric techniques, including Analysis of Variance (ANOVA) procedures, with baseline SAT 9 scores and the Otis-Lennon test scores used as covariates.

The resultant analyses were generally supportive of the *Everyday Mathematics* program with achievement relatively higher in the Grade 3, and Grade 4/5 pilot groups. Analysis of the pilot groups for Grade 5 was within the margin of error for the test, not statistically significant, and was considered as relatively equivalent. The analyses also showed that prior SAT 9 scores, and the Otis-Lennon test were appropriate covariates for the analyses. Overall, the district was encouraged by the relatively supportive results for the mathematics program on these standardized test scores.

The natural limitations of a curriculum evaluation process that might emphasize standardized test scores were an important concern to the district. Could any increased achievement be simply a novelty effect of the new curriculum as teachers tried harder to do something new? Was the new curriculum really mapping to student outcomes in a way that could even be reflected on the standardized tests? In order to feel more confident that the new curriculum was indeed playing a role in these observed differences in test scores, other sources of data needed to be examined.

The Voice of Stakeholders: Examining Survey Feedback

Beyond the students themselves, the district recognized that a new curriculum has other stakeholders associated with it. Teachers try to facilitate learning within its structure and parents try to encourage their child's success within it. Each of these two stakeholder groups can have a different perspective on the curriculum, and individuals within these groups may have varying opinions on its relative success. It had actually been a long-standing practice within the Westside Schools to informally survey students, parents, and teachers regarding their opinions relative to any new curriculum adoptions and this practice was extended into a more rigorous and comprehensive survey process. This particular evaluation-related process also resulted in a unique opportunity to be able to compare the survey responses of students, parents, and teachers who were involved in the implementation of the program with those who were not. In addition to the surveys, focus groups of teachers were held with those who had used the program and those who had not to obtain a more thorough examination of the program's strengths and weaknesses.

TEACHER SURVEY

The teacher survey included 85 questions about mathematics instructional practices, program content, teachers' opinions about their students' attitudes toward mathematics, and the adequacy of the program they were currently using in relation to district mathematics standards. To allow for comparison of the training and opinions of teachers using the new program with those who were not using it, teachers were asked to indicate whether they were currently using the new program, and if they were, whether they had used it for one or two years. Teachers who were using the new program were asked to evaluate the quality of the materials and the adequacy of training. Since the teachers in the field test group had received additional training for the new curriculum, this was a useful

way to determine the teachers' perceptions of the effectiveness of that training. A total of 132 teachers responded, representing essentially all of the district's elementary teachers. A few sample questions follow.

SOME SAMPLE TEACHER SURVEY QUESTIONS

Overall, my students' attitudes toward mathematics this year have been:
A. Very Positive
B. Somewhat Positive
C. Somewhat Negative
D. Very Negative

Overall, the rigor of the mathematics curriculum I used this year was ____ for my students.
A. Too difficult
B. About right
C. Too easy

Parents' concerns relative to their child's performance in mathematics this year have been:
A. Less than most years
B. About the same as most years
C. Greater than most years

Note: For electronic copies of the full survey send an e-mail to bjackson@westside66.org

A teacher can typically spend a considerable amount of time using supplemental resources for their classroom. Teachers in both groups in the district (new vs. traditional programs) were asked about how much they had used supplemental resources in particular areas during the last year. Three differences surfaced between the new *Everyday Mathematics* program and the traditional program. Feedback from the survey suggested that the new curriculum group used basic worksheets, routine games, and drill and practice strategies less frequently than their colleagues in the traditional curriculum classrooms. This feedback was seen as consistent with the higher level of interactivity associated with the new program.

It is important to note that teachers in the newer curriculum group had received more training than their colleagues, and had been prepared to deliver the *Everyday Mathematics* curriculum as effectively as possible. The training seemed well embraced by the teachers. Feedback from the survey suggested that teachers within the newer program felt that they needed less additional training in several different topics. Nine areas surfaced as feedback differences, with the teachers involved in the newer curriculum seeing less need for additional training. These training areas included reasoning, connecting ideas, algebra, communication, algorithms, transitions, self-guided learning stations, best practices, and manipulatives. It was interesting to note that teachers in both programs commonly desired more training within most topical areas. However it was apparent that the new program had a significantly less perceived "need" by teachers for these nine training areas.

Perhaps the most interesting difference between the perceptions of teachers within both instructional groups was a survey question that simply asked teachers how well they felt mathematics instruction was going this year. Teachers within the new program thought it was indeed going better and had a higher percentage of positive responses on a Likert scale question that asked teachers to reflect on their students' learning in mathematics as "less than most years," "about the same as most years," or "greater than most years." Responses also suggested that *Everyday Mathematics* teachers felt there was a slightly better attitude in those classrooms.

TEACHER FOCUS GROUPS

Survey responses can only help confirm opinions that are already well identified on the instrument itself. If the survey developer does not anticipate particular questions, it is hard to have those questions surface automatically within the data retrieved by the survey. To provide more of a deeper look at what teachers really felt about the program, two focus groups of teachers were formally conducted. Each group consisted of 11 to 12 teachers who had used the program for at least one year. The facilitator of the focus groups inquired about overall reactions to the program; its impact on teachers, students, and parents; and the need for additional training and support. Focus groups were audio taped, and data were summarized from typed transcripts.

Several general themes emerged from the district focus groups, and provide useful interpretation information for the program evaluation. These themes were generally supportive of the new program, but suggested that it was more difficult and time consuming to implement. Briefly, these themes included the following:

1) Teachers generally perceived a greater time need for overall lesson preparation in this program as compared to the earlier program.

2) Teachers perceived a need to devote more class time to mathematics instruction than was typically necessary with the previous program.

3) Teachers perceived a stronger integration by this program with other content areas than had been achieved with the previous program.

4) Teachers generally perceived a greater application to "real-world" situations in this program.

5) Teachers perceived that parents were often having more difficulty in helping their children with the mathematics homework of this program.

6) Teachers believed that the program was generally accessing a higher level of mathematics content at each grade level.

7) Teachers believed that students generally enjoyed the program.

8) Teachers were generally enthusiastic and supportive regarding this program.

Particularly noteworthy within the focus group themes were the teachers' perceptions regarding the higher level content and overall students' enjoyment of the program. One teacher commented, "They really like math. They look forward to it. As soon as we get there in the morning we're starting." Another said, "Morning after morning, I look around and they've all come in, picked up a paper and are all working quietly without being told because they like doing it." Another teacher attributed the students' enjoyment of the content, in part, to its variety. "You're not teaching just one thing the whole time. You're doing all these different things with that lesson so it really isn't just an hour of adding. It's doing a lot of different things."

Regarding the higher level of the content, a second grade teacher said, "I can honestly say to my second graders, "Well, this is the first time I've ever taught this to a second grader. I've taught it to fifth graders, but now we're going to do it in second grade." Some teachers anticipated that the standardized test scores would go up as a result of the *Everyday Mathematics* program. A third grade teacher commented, "In other programs they just get into a pattern. They do 20 multiplication problems so there's not a lot of thinking involved. I watched the children take the Stanford [SAT 9]. The problems are varied on the Stanford, they asked them to do different things. In the past, they had a problem with that. Our kids were in a pattern of just doing the same thing over and over. Here I watched my kids take each [test item] and really attack each one. I think it will show up in our scores." A fifth grade teacher in the other focus group said, "The kids came out of the test going, 'Well, that was easy.' I think they felt more comfortable. They came out going, 'Well, that's nothing.'" Such responses within the focus group data suggested that teachers were generally supportive and relatively impressed with the new curriculum.

STUDENT SURVEYS

Teacher surveys and focus groups are helpful in examining the potential effectiveness of any new program. However, the students themselves are really the key target audience and direct beneficiaries of any curriculum. Two student surveys were distributed to help get the opinions of students directly, one survey with 9 questions for first and second grade students and another survey with 21 questions for students in grades three through six. Survey questions focused on students' perceptions of their competence in mathematics and the degree to which they enjoyed various aspects of mathematics curriculum content. Students' schools and teachers were identified so the opinions of students who had not been exposed to the new program could be compared with those who had received the new program for one or two years. Some sample questions follow.

SOME SAMPLE STUDENT SURVEY QUESTIONS — GRADES 3-6

I am good at math.
A. Agree B. Disagree C. Not sure

I enjoy talking with others about math.
A. Agree B. Disagree C. Not sure

I sometimes use math in other subjects.
A. Agree B. Disagree C. Not sure

SOME SAMPLE STUDENT SURVEY QUESTIONS — GRADES 1 AND 2

Math is fun.

I can solve math problems.

Note: For electronic copies of the full survey send an e-mail to bjackson@westside66.org

For the primary survey, 693 students participated and selected pictures of faces to help give their response on the survey (from happy to sad) as a means of relating their agreement or disagreement with a question. The surveys were read out loud by the teacher to aid in student comprehension. The students in the *Everyday Mathematics* group and the students in the traditional instructional group differed on three variables. These included responses to the following items "I am good at math," "I like to use objects to help me figure out problems," and "I can solve math problems." A higher score represented greater agreement. Each of the comparisons was generally supportive of the *Everyday Mathematics* program.

For the district's Intermediate Survey 1,479 students participated and selected Likert responses to represent their level of agreement or disagreement with each item. There were four variables that differed between the *Everyday Mathematics* and Traditional Instructional groups. These included: "I like doing projects in math," "I like using the computer to work on math," "I like doing math at home," and "I enjoy solving math problems." Each of these responses was generally more supportive of the new program.

PARENT SURVEY

Although student and teacher support is indeed key for the success of any new curriculum, the district recognized that parents need to play a role in its success. Thus, the evaluation process for this curriculum adoption effort also dealt with parents. A 39 question survey was mailed to all elementary parents (2061), with a return rate of twenty-nine percent (29%) for 596 parents responding. Some sample questions follow.

Families with more than one elementary student were asked to answer the questions relative to the child whose birthday comes first in the calendar year. So as not to focus parents' attention solely on limited elements of the mathematics program, the survey included similar questions about other curricular areas, and the perceived effectiveness of their student's schooling. Specific to this study, questions focused on their child's mathematics performance, students' enjoyment of the subject, and opinions about the homework associated with mathematics. Parents were asked to identify their child's school and grade so opinions of parents of students in the various groups described above could be compared.

SOME SAMPLE PARENT SURVEY QUESTIONS

My child enjoys math.
A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't know

I have a good understanding of the mathematics program in my child's school.
A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't know

I think my child is appropriately challenged in mathematics.
A. Strongly Agree
B. Agree
C. Disagree
D. Strongly Disagree
E. Don't know

Note: For electronic copies of the full survey send an e-mail to bjackson@westside66.org

Generally, for the curriculum evaluation itself, there were no notable differences between the Everyday Mathematics and Traditional groups on any variable on the parent survey. There were only slight differences in a few of the parents' responses on one variable related to mathematics (but not significant). The parents in the control group agreed slightly more strongly with "I feel confident in helping with mathematics homework."

Building on What Has Been Learned

One important aspect of good curriculum evaluations is that such evaluations should eventually help lead to an enhanced learning experience for students. Within the context of this particular curriculum evaluation, the district was trying to examine if its initial promise for enhancing student achievement was indeed becoming a reality in the classroom using this program. The results of the evaluation were generally supportive of the new program and will now help the district further embrace the program. However, the district also realized that the strong administrative support provided for the program, such as the consistent teacher in-service process and willingness to formally evaluate the program was probably a significant factor in the overall success of the program. Strong leadership was also a key factor and each of the three leadership

team members (lead teacher, district administrator, and university supervisor) found that they needed to be continually involved with all aspects of the program and its evaluation process.

By the end of the two years of evaluation effort, the committee was ready to make a recommendation to the Board of Education suggesting that Everyday Mathematics be considered as the formal curriculum for their elementary students. After board approval, the committee was also empowered to develop a further implementation plan. The key focus of the implementation plan was to support teachers in ongoing professional development. A full-time math facilitator was requested to be available to teachers to support them in their classroom. Monthly grade level meetings were planned to work with teachers in program related topics such as using materials, pacing, lesson focus, management of program components, grading, with designated grade level leaders. The middle and high school math department teachers were asked to assist with the program, and also to be on call to help explain any content questions that surfaced from teachers.

Thus, after the two year evaluation process, the curriculum was essentially underway. Some of what was learned within the adoption process for this curriculum related to the general group dynamics of facilitating change. In actuality, this curriculum adoption effort was perhaps the most carefully planned adoption effort ever undertaken by the district. By acknowledging that a careful pilot study process was being built into the adoption timeline right from the start, it appeared that the participating teachers, administrators, and parents were all the more willing to assist with the additional work needed for the adoption process to succeed. The use of a full time facilitator, in this case a released master teacher, was an important lesson learned in its own right. Having a full time, knowledgeable and available advocate for the curriculum adoption process was often recognized as critical for ensuring the strong participation of all stakeholders.

A good curriculum evaluation program should look to the future needs of the district. The results of this particular evaluation will be used by Westside to further address identified teacher, parent, and student related insights and to further enhance teacher training. Teacher training is critical to the implementation of any new program but particularly so in relation to any new mathematics program. Mathematics instruction required by the Everyday Mathematics Program, and similar curricula, often involve an approach that is considerably different from more traditional mathematics instruction. The recent evaluation process will aid in future planning related to keeping an effective mathematics curriculum in the classrooms of the district.

The ongoing effort of an effective curriculum implementation process related to mathematics instruction continues at Westside. As teachers become more experienced with the new curriculum, more professional development is planned by the district to help them become increasingly efficient and effective with the new materials. It may well be that some of the most important professional development will occur as teachers become more experienced with the curriculum and its new approaches.

An effective curriculum in today's fast paced learning environment is one that is interesting, dynamic, and well supported by the various stakeholders involved. Within this context, students need to be achieving, teachers need to be engaged, and parents need to be supportive. Such an embraced curriculum then needs to be accountable to such stakeholders, who deserve to know if it is working as expected. This ongoing accountability requires good curriculum evaluation, with ongoing and periodic feedback, and strong leadership. The Westside Community schools were pleased that they had planned for such accountability and leadership right from the beginning of the new mathematics program using a systematic and inclusive evaluation process.

Strong formative evaluation can often be an important "glue" to helping build and maintain a cohesive curriculum for a district. An evaluation itself can thus aid achievement. When everyone is aware of both the successes and challenges of a planned curriculum, they are more likely to undertake these new learning activities with realistic expectations, sustained enthusiasm and a better understanding of student needs. Most importantly, when all stakeholders participate in helping examine whether a program is truly effective, they are expressing an active interest in both the program's general success and the related academic success of their students.

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