Parent Involvement and Awareness: How Are New Mathematics Textbooks "Adopted" in California Public Schools?

by Paul Giganti,Jr., CMC Math Festival Program pgiganti@berkeley.edu



• very few years, shiny new mathematics textbooks show up in California K–8 public schools for your children to use in studying mathematics. You may have wondered how those new mathematics textbooks came to be chosen by your child's school, and why. It is an interesting process you might like to know about, and one in which you might like to be involved. If you feel strongly about the choice of texts used to teach mathematics to your sons and daughters, here is a brief primer on the official state mathematics textbook adoption process for California K-8 public schools (high schools, charter schools, and private schools are not subject to the same laws that dictate the process of adopting mathematics textbooks).

The California Adoption Cycle

California is one of 22 states that have a textbook adoption process by law. That process in California takes place on a semi-regular schedule about every six years. Primary adoptions occur for the four core curriculum areas-historysocial science, science, mathematics, and reading/ language arts—studied by K-8 students. The upcoming cycle for these primary adoptions is as follows: history-social science (2011), science (2012), mathematics (2013), and reading/language arts (2008). An adoption cycle has a beginning, a middle, and an end; then it starts all over at the beginning. Again something happens during each year of the six year cycle. Though the most recent mathematics adoption cycle was 2007, the process began several years before, and schools will be putting those new textbooks in the hands of students anytime from this fall through the 2009– 10 school year.

Funding for Textbooks and Materials

The state legislature sets aside funds to cover the costs of supplying instructional material (in most cases, read "textbooks") for every K–8 public school student. These funds can only be spent by schools on textbooks and materials officially recommended by this adoption process. Sometimes

allotted funds are insufficient to purchase all the texts and materials teachers, schools, and districts wish to purchase for student use. Districts can spend additional general budget funds if they wish (and have the extra funds available). Each year California legislature funds provide from \$50 to \$65 per student for districts to spend on newly adopted textbooks; however, the latest available actual district spending on K-12 instructional materials in California averaged \$71.60 per pupil. Schools can also purchase books that are not on the state-approved adoption list, but they must use other funding, such as a district's general fund. New textbooks and support materials are not cheap, so the vast majority of districts only adopt texts that have been state approved.

The California Mathematics Curriculum Framework

About three or four years before a new mathematics adoption, the California Department of Education (CDE) begins a new adoption cycle by revising or amending the California Mathematics Curriculum Framework, the official state guide to public schools and teachers on what, when, why, and how to teach mathematics to K-8students. This state document contains not only these mathematics curriculum guidelines, but has for years included a complete listing of the California Mathematics Curriculum Standards, by grade level, beginning in Kindergarten and going through 12th grade. New textbooks must address every single standard at every grade level they are designed to serve. Together with all of the other instruction, curriculum, and assessment guidelines in the California Mathematics Curriculum Framework, this information forms the basis for publishers to begin developing new textbooks. Publishers pay close attention to every word in this document because they know that their new textbooks will be judged by how closely they meet those guidelines. While the California Mathematics Standards themselves have not been altered for more than ten years, new guidelines are revised or added with each new Mathematics Framework

depending on the perceived needs of California's students. For example, two recent changes to the guidelines involved second language students and algebra readiness.

Once a new California Mathematics Curriculum Framework has been published or revised, textbook publishers begin work on revising or writing new mathematics textbooks based upon those guidelines. That process alone takes publishers two or more years. Any publisher can write and submit textbooks for a new adoption cycle; however, given the cost of such an endeavor, the actual textbook submissions number anywhere from a handful to a couple dozen textbook series. Publishers do not have to submit a textbook series that spans all of the grades from K-8; they can submit for any range, from a single grade level text (for example, 8th grade Algebra), to a few grades (for example, primary grades K-3), to a wide span of grades (K–6 is common). The larger publishers not only write textbooks, but also design and submit additional materials not contained within the student textbook that support their programs.

Legal Compliance and Public Review

Approximately a year prior to the date when schools can officially adopt new mathematics textbooks, the California Department of Education begins a thorough evaluation of the new or revised texts submitted by publishers for that adoption. This process happens at the state level and involves teachers, college professors, publishers, state policy makers, and the public. It is an open process as required by state law, and notices of the meeting dates, times, and locations are posted on the CDE web site.

The first step in that long evaluation process is a legal compliance review. Each new textbook and its support materials must be verified to be in compliance with the California Education Code as well as the guidelines set forth in the Standards for Evaluating Instructional Materials for Social Content. Those Guidelines are designed to eliminate things such as sexism, racism, and stereotypes from the text and pictures of the books. Textbooks and materials that do not meet these standards must be revised to comply or be withdrawn from the adoption process. Most often, publishers with materials that do not comply revise their materials and resubmit for another compliance review.

At this point in the process, the public is allowed to review and comment on the submissions. Sample sets of the instructional materials submitted for adoption are available on public view at select County Offices of Education, usually in the larger counties. Written comments from educators and the public are then forwarded to the Curriculum Commission and the State Board of Education. There are also official public hearings held by these state agencies prior to adoption.

The IMAP and CRP Review Panels

Next begin an exhaustive education content review process. The Curriculum Commission recommends and the State Education of Board appoints two panels, the Instructional Materials Advisory Panel (IMAP), composed of mostly classroom teachers, and the Content Review Panel (CRP), composed of subject matter experts, usually professors of education and mathematics at California colleges and universities. Teachers, professors, and others may be nominated to be part of the IMAP and CRP panels and the California Curriculum Commission selects from those applicants. It is the intent that those selected for both panels are representative of the state's population and demographics, unbiased toward any publisher(s), and knowledgeable about teaching and learning mathematics. The members of the IMAP review the submitted materials according to all elements of the criteria and the Standards, and the members of the CRP review the materials to ensure they are accurate and adequate in their mathematics content. These panels typically meet in Sacramento over the period of a week.

The Role of the California Curriculum Commission and the State Board of Education

At the end of this very intense process, the IMAP and CRP panels prepare a report of their findings for the Curriculum Commission and include their recommendations for texts and materials for adoption. Other materials are recommended for adoption with corrections and edits, and some materials are recommended for rejection. Then, based upon the IMAP and CRP recommendations, publisher responses, and written comments from the public including comments from the public hearings, the Curriculum Commission makes its recommendations to the State Board of Education. The State Board has the final word-they may or may not accept the recommendations of the IMAP, CRP, and Curriculum Commission. Sometimes a few of the final choices for adoption can come as a surprise since the State Board also has the sole ability to add textbooks that have been previously rejected by the IMAP and CRP. The Curriculum

Commission then modifies its report, based upon the final decisions of the State Board of Education, and issues a document that is widely distributed to school districts and County Offices of Education throughout the state (where it is available to those who wish to read it). This final state report lists those texts and materials that K–8 public schools may adopt using the state funding that has been allotted for each student.

The District Level Adoption Process

The last step in the long mathematics textbook and materials adoption seems to schools as the beginning of the process—only at this point can individual school districts begin to conduct their own process of evaluation to determine which materials they will adopt. While districts must adopt materials from the state-approved list, there are still choices to be made. Districts are not required to have a local adoption review process. but most have found that in order to meet the needs of their students, one last review of the materials is necessary. Some districts conduct adoptions in collaboration with other surrounding districts with similar needs and student populations, while other districts delegate the authority to individual school sites to select their adopted textbooks and materials from the state list. Often districts form a blue ribbon committee of teachers, administrators, and parents to help them make the final choice. This last adoption at the district level also makes careful use of the curriculum content Standards, the California Mathematics Curriculum Framework, the State Board of Education-adopted evaluation criteria, and the reports on each adoption as resources in making their decisions. Nearby County Offices of Education can be very helpful to local districts in their review process. Most districts end up making a unified textbook adoption for all of their K-8 schools to insure equity and consistency across the entire district. Many districts feel they can better provide unified and consistent professional development for teachers in the new materials if one textbook series is selected.

The Final Timing of the New Textbooks

Districts have 24 months to purchase textbooks and materials after the State Board has officially approved materials for a subject area. Not all districts adopt new textbooks and materials at the same time; it is up to individual districts to decide when they wish to begin and finish their own local adoption process. Many districts take a year to pilot a few different textbook series in several classrooms, and then decide based on the experience and feedback of those teachers involved. Because the timing of this local adoption process is at the discretion of individual districts, some California students will be carrying those new books home this fall, while others will not get them until next fall (2009).

This may seem like an extensive, timeconsuming, and expensive process (and indeed 28 states feel they do not need such a process), but in California the adoption process is designed to put the best curriculum materials in the hands of our students. While some would disagree that such an extensive process is necessary, it is the process that all K–8 public schools in California must adhere.

At the end of this long six year process—with so many layers, reviews, and players— districts finally purchase their new mathematics textbooks and materials for students, and that is when you see new mathematics textbooks coming home with your son or daughter. And remember, take care of those books; they have to last six years!

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