Review of the Book: English Language Learners in the Mathematics Classroom

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In-service teachers will benefit from the exhaustive source on teaching mathematics to second or in programs teachers working in settings such as self-contained languages and cannot is the best way for ELLs While Coggins, Kravin, Coates, and Carroll premise the book by instructional strategies with second language learners. The book provides authentic interactions between students and teachers engaged in various math lessons, providing the reader with a clear understanding of Concept-Rich Instruction.

Ben-Hur suggests that as teachers think reflectively about student errors, they better understand student misconceptions and adjust instruction accordingly. By adequately identifying these specific misconceptions (e.g., there are no numbers smaller than zero or algebraic misunderstandings related to the nature of rational numbers), math teachers can better meet the diverse needs of their students. The book concludes with a discussion of process-oriented assessments in a variety of formats, which includes journaling, self-assessments, portfolios, and even the often controversial issue of homework. Upper elementary, middle school, and high school teachers will greatly benefit from carefully examining Concept-Rich Mathematics Instruction.

Reviewed by Kathy Evans and Jessica Lester, The University of Tennessee


Pages: 144 Price: $61.95(hardcover); $27.95(paperback) ISBN: 9781412937597(hardcover); 9781412937603(paperback)

The population of English language learners (ELLs) in U.S. schools continues to grow as educators struggle to provide appropriate and effective mathematics instruction for students from linguistically diverse backgrounds. Some educators understand mathematics to be a "universal language" and do not provide ELLs adequate instructional support in accessing mathematical content and building language skills (Khisty & Morales, 2004). Other teachers receive little training on how to teach ELLs, especially in mathematics, and simply do not have the requisite skills to meet the academic and linguistic needs of second language learners (Téllez & Waxman, 2006). In light of these challenges facing ELLs and their mathematics teachers, English Language Learners in the Mathematics Classroom offers educators helpful tools for improving classroom practice with second language learners.

What makes this text so valuable for classroom teachers is its level of specificity. Instead of offering broad suggestions for instructing ELLs, such as "activate prior knowledge" or "create an interactive classroom environment," the authors describe specific instructional strategies that simultaneously teach content and develop language and are appropriate for use with both elementary and secondary students. Additionally, the text addresses the use of the instructional strategies with ELLs of varied English proficiency levels. The first chapter, "Developing Conversational Language" and the second chapter, "Developing Academic Language," highlight the importance of communication for ELLs in the mathematics classroom. Chapters three through six focus on scaffolding, concrete materials, visual learning and questioning strategies, and the last chapter, "Comprehensible Input" helps teachers combine multiple strategies to provide ELLs mathematics instruction that is both rigorous and accessible. Each of the seven chapters includes a teacher-friendly overview of the scholarly research that supports the instructional strategy, an example from a real classroom complete with student work samples in which the strategy was used, an analysis of the classroom example in terms of mathematics content and language development, a list of practical teacher tips for implementing the instructional strategy, and finally, a thorough description of the instructional strategy. The chapters end with questions that encourage teachers to reflect on prior practice and to plan for implementation of the instructional strategies with second language learners.

While Coggins, Kravin, Coates, and Carroll premise the book by stating that the use of the primary language is the best way for ELLs to build mathematical concepts and skills, the authors concede the reality of U.S. classrooms in which most ELLs are taught by teachers who are not proficient in the students' home languages and cannot utilize the primary language for mathematics instruction. The book is intended for teachers working in settings such as self-contained classrooms, departmentalized mathematics classrooms or in programs specifically geared to language learners, and although the book is not presented as an exhaustive source on teaching mathematics to second language learners, the contents offer help to all types of teachers. Pre-service teachers will appreciate the explicit connections between theory and practice, novice in-service teachers will benefit from the specific classroom examples that encourage appropriate
implementation, and the reflective questions will afford more experienced teachers the opportunity to analyze and improve upon practice. One area in which the authors could provide increased guidance to teachers is in the delivery of culturally relevant mathematics instruction. While the authors note at the outset the importance of "identifying cultural connections" (p. ix) in mathematics instruction with ELLs, specifics on the process of creating meaningful cultural connections would be helpful as embedded pieces of the classroom examples.

This text presents a toolbox of strategies for teachers who wish to empower ELLs to master mathematical concepts and skills while also developing English language in meaningful contexts. The included overviews of research allow teachers to make informed instructional decisions in their work with ELLs, and the classroom examples detail the process through which the instructional strategies are appropriately implemented. The accessible and specific nature of this text makes it a valuable resource for teachers who serve language learners in the mathematics classroom.

References


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When I was in fourth grade, I wrote a mildly violent story about two hardened criminals who break into the Michigan Space and Science Center, steal some moon rocks and other precious artifacts, and make their escape by commandeering a moon rover from one of the exhibits. The bulk of the narrative is devoted to a lengthy car chase with police, marked by lots of gun fighting, crazy stunt driving and general mayhem. Ultimately, it doesn’t end well for the protagonists, who go out in a proverbial blaze of glory. Mrs. Shafer, my language arts teacher that year, indulged my fascination with action movie conventions by letting me write, illustrate and publish "The Hijacked Center" for a storybook-making project, and politely based her grading on my ability to write a coherent narrative, if not an entirely believable one. I'm still not sure where I got the idea that a moon rover could outrun a police cruiser, but it did make for some interesting illustrations.

In eighth grade, instead of forcing me to write ten decontextualized sentences to demonstrate my mastery of each week's vocabulary words, my English teacher Dr. Cameron gave me free rein to weave my new words into brief narrative sketches, most of which ended up substantially longer than ten sentences and featured plotlines borrowed from Stephen King and The Twilight Zone. I was lucky enough to have her for English again in ninth grade, where I had the opportunity to select any topic I desired for the end of the year research project. I chose to write about The Rocky Horror Picture Show, a decision Dr. Cameron supported with a smile and which resulted in one of my most self-actualizing writing experiences prior to college. I tracked down every reference to Rocky Horror that I could find in a decade's run of the Readers' Guide to Periodical Literature, and even had my first experience placing a special order at the local bookstore to obtain an out-of-print copy of The Rocky Horror Picture Show Book (Henkin, 1979). I went well beyond the minimum of five sources and handwrote the final copy of my research paper in my very first all-night writing frenzy, accompanied by the Rocky Horror audience participation album spinning on my turntable over and over again. I still have that paper, which was well-received incidentally, along with most of the short stories I wrote for Dr. Cameron, and I've never forgotten the lines she wrote in my yearbook: "When you're as famous as Stephen King, I'll say I remember him when..."

At the heart of Ralph Fletcher's Boy Writers: Reclaiming Their Voices lies the provocative notion that writing instruction isn't about teaching writing; it's about teaching writers, and upon this central premise Fletcher bases all of his ideas about how to nurture boys in the "dangerous, supervised sport" (p. 49) of writing. Some of my own teachers, like Mrs. Shafer and Dr. Cameron, seemed to have accepted that premise long ago, but reading Fletcher's book made me appreciate how progressive those teachers were, and, unfortunately, how atypical my formative experiences as a boy writer were. In contrast to Fletcher's popular Craft Lessons books, Boy Writers does not offer readers a nuts and bolts methods book of lesson plans and writing