From The Editor (Continued from page 1)

They do effect what and how we teach. But I use both Logo and Saxon to help me go beyond what is listed in our standard curriculum. It is said that education is what we remember when we've forgotton what we've been taught. To me, the sediment of a good mathematics education includes a *general awareness of process*. Here are some specific process related teaching goals not mentioned in our curriculum: 1) Appreciation of the contribution of *repetition* to intellectual growth (how do you get good at and really understand something); 2) Knowing how to manage error, to expect it, tolerate it, and deal with it as a *routine* matter; 3) Experiencing satisfaction consequent to *sustained effort over time* (After you've done it every day for the next three months, and it becomes your gut knowledge, you'll probably feel quite relaxed about it.). 4) Contribution of *ritual*, (or training) to disbafflement (a habitual check list of what to do when you don't "get it"). Teaching with Saxon and with Logo gives me a sense of confidence that long after all the curricular details have flowed into and out of the minds of my students, the appreciation of these *processes* will remain.

Most of us cannot get a sense for recursive procedures unless we do them and do them and do them. We cannot learn piano unless we play endless scales. And most of us cannot learn to think mathematically unless we *do* mathematics, over and over and over. There's a rhythm and a feel to it that comes only with practice. Learning is process, Logo is process, mathematics is process. How else to become familiar with processes than to do them, think them, write them, say them, act them out and do so over and over.

My commitment to process includes a daily immersion of my students in classical and repetitive mathematical exercises. That brings me to texts. One of our responsibilities is to transmit a generally agreed upon body of knowledge, and in the context of doing so, I want several things to happen. First, I want to put in place a basis for all those good residuals mentioned above. Second, I want time in class to do Logo and lots of other fun, creative, discovery kinds of things that I consider necessary *but insufficient*. For sufficiency, for the third thing to happen, I need a text.

Ideally, a text is readable and well organized *at a student level*, a resource *accessible* to average kids. It introduces new knowledge in *mind sized bites*, requires only occasional classroom instruction, and encourages independent *self- and student-to-student teaching*. It *allows for lots of error* by providing time for development of effective approaches to problems. It is thorough but *short enough to be finishable* in a school year by an average class, so that a *sense of conclusion and accomplishment* is captured. It is *highly regular and predictable in its exercises* so that a child always knows where to apply the daily 45 minute ritual of homework. It *adapts itself to more and less proficient students*. It is *highly repetitious*, and as such, *models a basic learning process*. Does all that sound "Logo-like? At the end of a long series of daily immersions, I expect a reasonable number of students to say, "Hey, I'm beginning to get a feel for this stuff." And I want to reply. "You've only yourself to thank for that."

I find no such text from the major publishers, whose offerings are largely clones of each other, whose commitment to constant reinforcement is tepid, and whose major intent is not to offend anyone. I am grateful to John Saxon for recognizing the need and undertaking the enormous task of writing the series of texts that currently span 4th to 12th grades. It is not at all surprising that some studies show teachers and students like these books and do demonstrably better with them on traditional material. What is surprising is the amount of time they gives us to explore the surrounding territory.

Some Final Thoughts

John Saxon has obviously made significant impressions on both the editor and chairman of CLIME. We would be interested in your impressions and reactions to Saxon. Have you read his provocative advertisements in the *Arithmetic and Mathematics Teacher* journals?

The original version of the dissolution clause of our constitution that was unacceptable to the NCTM looked like this:

> *In the event that CLIME shall disband, the Steering Committee shall have the power to disperse any assets.*

Here is the current (revised) version:.

> *In the event that CLIME shall disband, all assets and property held by it, whether in trust or otherwise, shall, after the payment of its liabilities, be paid over to an organization selected by the Steering Committee of CLIME, which has similar purposes and has established its tax-exempt status under Section 501 (c)(3) of the Internal Revenue Code of 1954 as now enacted or as it may hereafter be amended, and such assets and property shall be applied exclusively for such charitable, scientific, and educational programs.*

Do you get a feeling they don't trust us? Ed.