

Saxon, Still the Best Choice

Even though John Saxon (founder of Saxon Publishers) passed away in 1996, the mathematics curriculum he pioneered did not die with him. Following John Saxon's death, ownership of the company transitioned to the hands of his four very competent children. The Saxon children eventually sold the company to Harcourt-Achieve in 2004, believing they were the best company to "[further our father's vision](#)"¹. Since that time, questions have arisen regarding the sale and the repercussions for current and future Saxon users. Has the curriculum been dumbed down? Does it now present a calculator-based, New Math(a.k.a. new-new math, or whole math) approach? Will Harcourt-Achieve carry on John Saxon's vision? Speculation about the New Saxon editions has also resurrected old arguments and myths about the program. Is Saxon a self-teaching curriculum? Is it just boring, mind-numbing drill that leaves students with no ability or desire to apply what they have learned in new situations?

I thought it would be helpful to prepare a discourse on the current state of Saxon mathematics that presents answers to the above questions, supported with facts and statistics, and written by someone who knows John Saxon's works *and* his words very well. Since 1997 I have been blessed to be a teacher of Saxon math and observe firsthand the great results of the curriculum. I have also taken the time and effort to research John Saxon and his reasons behind his curriculum. I hope that, after reading this article, you will come to understand as I have that all current editions (paperback or hardback) of Saxon are alive as ever and are not dumbed down, and when used properly will result in students who can apply what they have learned to new situations. You will also learn that teaching Saxon correctly requires a teacher who understands the program and can connect previously learned concepts with new ones, as well as connect mathematics to the rest of the world. The Saxon road to learning math is not an easy road, but it is still the best road available.

Saxon is not dumbed down

Saxon has not conformed to the New Math standard of intensive calculator use, nor has it conformed to other unproductive New Math(a.k.a. new-new math or whole math) standards. Over the past few decades, New Math standards have developed along with New History, New Literacy, etc. A fascinating book that documents the horrible consequences of the "New Education" is entitled *All Must Have Prizes* by Melanie Phillips (although the book is about British education, most of the ideas that have messed it up so bad came from America!). In "New Education", knowledge of history, memorization of facts, and drill and practice are "out", while exploring, investigating, and guessing are in. New Math educators believe that understanding is everything and memorization is worthless. This type of thinking is wrong-headed and backwards. In an excellent and proper education, memory is the rock you build on because you can't understand something well until you have the foundations firmly cemented in your mind.

Unfortunately, tremendous pressure exists to include calculator use and other New Math ideas prior to Algebra 1, and Saxon had to give in ever so slightly, otherwise countless numbers of public school children would have never been able to access these textbooks. The new paperback editions(only 5/4 through 87 are now in paperback, Algebra ½ and up are still sold as hardback editions) include a scattering of lessons where calculator use is discussed,

such as lesson 84 in Math 7/6 and 52 in Math 8/7. From Investigation 5 of the New 8/7, I found a problem that asks students to “Explore the graph-creating capabilities of database computer programs”. This is as ridiculous as asking someone with no knowledge of driving to hop into a car and “explore driving”. Fortunately, the inclusion of New Math topics is isolated and random.

But why is the inclusion of New Math isolated and random? If you’re going to do that, why not just leave them out altogether? To understand why they are isolated and random, one must know a little bit about state textbook adoption processes. I learned firsthand about the Texas textbook adoption process in the summer of 2003, when I was one of 11 volunteers selected to review high school biology textbooks. In order for a state to accept a textbook for use, the book is compared to the standards of the state. In some states like Texas, volunteers review the textbooks, while in others elected officials are responsible. In Texas, volunteers are provided with a document from the textbook publisher that lists every instance in their textbook where their textbook conforms to state standards. If a particular standard conforms in just one place, even if it is just one question in the entire book, by law the reviewer must say that the textbook conforms to that particular standard. Therefore, if you are a textbook publisher and you want students to have access to your textbook, but you don’t agree with all the standards of a particular state, you can still get your text adopted even if it only lightly covers a particular standard. Hence, the random scattering of New Math found in the new (and old) Saxon 54 through 87 editions.

Heavy coverage of New Math in a textbook would be evidence for dumbing down; minor, random scattering of New Math is not dumbing down. The new paperback versions of Math 5/4 through 8/7 are better than ever. They are now all modeled after the highly successful, hardback 2nd edition of 8/7, and now all have 120 lessons and 12 investigations. Before, they had varied numbers of lessons, which made it confusing when planning the year as to how many lessons to do each week. Now, since they all have 120 lessons, it is easier for both student and teacher, because they can follow the same format (4 lessons and a test every week for 30 weeks) for all 4 books. All the new editions now have solutions manuals (only 8/7 did before), and more practice problems.

Finally, contrary to what you may have read elsewhere, “stem and leaf plots” are not New Math, but are a useful, fundamental concept that helps students organize data and make a bar graph. Saxon is still as good and anti-New Math as ever, and the speculative claims made by some are unfortunately creating confusion and loss of confidence by educators of all types. All current Saxon editions were developed prior to the sale of the company, so it is impossible to say how and if Harcourt will change them. Since they spent about \$120 million to purchase Saxon Publishers, I doubt they will be coming out with new editions anytime soon. I will give Harcourt the benefit of the doubt, and hope that in future editions they will honor the expectations of the Saxon children for the curriculum their father pioneered.

Saxon math students can apply math in new situations

The reason John Saxon created his curriculum was because his junior college mathematics students weren’t learning. His [radio interview](#)² goes into great detail about how he first came to realize the importance of having his students review, and how understanding came through continual practice of the fundamentals. Saxon’s program is designed to help students

remember what they learned, succeed at math, and have the confidence to move on to higher-level maths and sciences.

While John Saxon collected loads of evidence supporting the fact that students who used Saxon did better at math than the non-Saxon group, no one has ever studied whether students who use Saxon do well in science class. Few would argue that mathematics is the language of science, so it would be reasonable to assume that someone with a good understanding of math would be good at doing science.

To support this hypothesis with evidence, I set up a test. First, I asked my home-educated, high school science students a question: “How many of you are currently doing Saxon for your math, and have a “B” average or greater?”³ Next, with the students classified in two groups, I compared their performance on my two cumulative quarterly exams taken in the 2004 fall semester. I also compared the two groups’ overall grades. The results are in Table 1 below.

	Use Saxon, and have a grade of 85 or more	Others
Quarterly exam average	86.3	76.0
Overall average	91.6	85.7

Table 1. Comparison of averages of 2 quarterly exam scores, and overall averages, of 95 students (190 quarterly exam scores) in my science classes. Data was collected the week of Jan. 31, 2005. A two-tailed t-test with unequal variance produced a p-value of 0.000052 for the quarterly exam data and 0.00034 for the overall average. A t-test is a statistical test that helps answer the question “Are these two averages really different?”, and if the “p-value” is 0.05 or less, then the answer is “yes”. Statistically speaking, the above averages are *significantly* different!

The results are fascinating! While I think it is important for a mathematics program to teach a student how it connects to other aspects of their lives (science, business, philosophy, etc), I don’t think mathematics class is the most important place for real world application. Science class IS real world application of math, and Table 1 convincingly proves my assumption that a student who understands their Saxon math⁴, also understands science, the primary course where mathematics is applied. Bottom line: if you want “A” students in science, use Saxon for math! But teach it well, which will require taking the time to understand the program and John Saxon’s reasoning behind it.

Saxon as a “self-teaching” curriculum is a myth for most

Some say that the Saxon curriculum is so popular among home educators because it is easy to use, with little teacher intervention needed. However, this is not the way John Saxon intended it to be used. Listen to his [radio interview](#) and you will understand why this is true. A person who has never used a Saxon textbook before will be very surprised when they open a Saxon textbook for the first time and see the random presentation of uncategorized lessons. The random presentation of lessons is the number one reason why it is important for a person who

is familiar with the curriculum to teach it, because it is incredibly important for the student to be able to connect new lessons to previously learned material. With the Saxon method, the student learns a new concept, practices it for a week or so, then builds on that concept in a new lesson. The proper way to teach Saxon is to help the student connect previously learned lessons to the current one, *and* to connect mathematics to the rest of the world.

My company, DIVE, LLC averages about 1 thank you email per day from grateful parents and students who appreciate the math instruction they receive from our DIVE CD's that teach Saxon math. Multiply 1 email per day over the almost 4 years we have been in business and that means around 1500 Saxon users have confirmed that the "easy teaching" of Saxon is a myth. In the Saxon program, the teacher should be the catalyst that brings student and concept together resulting in a more efficient and thorough understanding of the concept and its application, all the while keeping the goal of serving God and serving others fixed as the real reason for any and all learning⁵. Instruction from the DIVE CD's keeps the focus on the important goals, while not neglecting the others.

Final thoughts

I hope the evidence I have provided in this article will help you understand more clearly what Saxon math is and what it isn't, and will clear up some of the current speculation that is confusing many educators. Saxon mathematics is not perfect, but its strengths far outweigh its weaknesses. Current Saxon editions are not dumbed down, and when used properly, allow students to apply math in new situations.

Euclid, one of the most famous mathematicians in the history of the world, said that "there is no royal road to learning". If you choose the Saxon road, be prepared to follow it the way that John Saxon intended it to be followed, with an instructor who is willing to take the time to understand the program, and connect mathematics to the rest of the world. Be willing to take the hard road to learning, where memorization is rock and understanding and wisdom follow. Take the Saxon road, and your reward will be great.

Notes

¹June 2004 article in The Oklahoman, http://www.writenews.com/2004/060404_harcourt_saxon.htm

²John Saxon/Art Robinson radio interview: www.saxonhomeschool.com/about/authors.do?longbio=4

³I teach science classes to home-educated students in the Houston area. I teach 4 high school classes including Bob Jones physical science, biology and chemistry, and Saxon physics. I grouped my students into two categories: those who currently used Saxon for math and also had an 85 or higher were in one group, and everyone else was in the other. I chose 85 as my cutoff because from my experience, a student who has an 85 or lower is usually not showing a thorough understanding of their coursework.

⁴The majority of students in the "Saxon, 85 or greater" group use DIVE CD's for their math *and* science.

⁵Francis Bacon, considered the founder of the scientific method, says it best: "A man cannot be too well studied in the book of God's word or the book of God's works, divinity or philosophy, but rather endeavor an endless progress or proficience in both. Only let men beware that they apply both to charity and not to swelling, to use and not to ostentation." from *Francis Bacon/edited by Brian Vickers* (Oxford: Oxford University Press, 2002) p. 126.