

School: Christ's Household of Faith School
Location: Saint Paul, MN
Math Supervisor: Mike Reiners
Technology: Casio FX-9750G Plus, FX-9860G, & FX-300ES

Summary: After using one specific brand of calculator, personally and professionally, for over 15 years, this supervisor and teacher found that switching to Casio scientific and graphing calculators went very smoothly as a result of the technology's ease-of-use and Casio's outstanding support.

Who Am I?

My name is Mike Reiners. I am currently the chairperson for the Math & Science Department at Christ's Household of Faith School in Saint Paul, Minnesota and have been teaching mathematics for just under ten years.

My Calculator Experience

Until our school began using Casio calculators this past September, I had always used a Texas Instruments calculator. This was the case personally – I used a TI since I was in the 10th grade – as well as professionally – my school has used various Texas Instruments' models including the TI-34II, TI-82, TI-83, TI-83 Plus, TI-84 Plus, TI-85, and TI-86.

In my nine years as the department chairperson, I have regularly scraped and clawed to update the calculator technology for our 7th through 12th grade students. At the beginning of my tenure, we ordered new TI-82s and TI-85s. However, when TI discontinued those models a few years later and replaced them with more expensive models, we could no longer afford them and I entered a cycle of selling our old calculators on eBay and buying "new" ones. (In this case, "new" means a used calculator with a higher model number.) While this saved money for the school, it was extremely time-consuming, and I funded the eBay transaction fees out of my own pocket.

Out of convenience and familiarity, I had never really considered any other calculator brand.

My Introduction to Casio

Last April, while attending the National Council of Teacher's of Mathematics (NCTM) annual meeting, I was walking through the exhibit hall with some extra time on my hands between sessions. I passed several exhibits and found myself next to the Casio booth. I thought, "You know, I've never really taken the time to comparison shop versus TI" and, since I had some extra time, decided to see what they offered. Looking back, I honestly thought I was going to get a standard "sales pitch" and end up wasting my time. I was wrong.

I introduced myself by mentioning that I was a lifelong TI user. I also confessed that I'd never really looked at any other brands. I said, "Sell me on why your graphing calculator is better than TI's."

After nearly an hour, I was hooked. I realized that, with the fx-9750G Plus, Casio was offering a calculator with nearly identical functionality to the TI-83 Plus, but at less than half the retail price! Even though we are a small school, because of our tiny budget, the financial benefit of the fx-9750G Plus was just as important to us as it is to larger schools. As a result of that meeting, and subsequent interactions with Casio, we switched our entire school from Texas Instruments to Casio. We now use the fx-300ES scientific calculator with our 7th, 8th, and 9th grade students; the fx-9750G Plus with our 10th grade Advanced Algebra students; and the fx-9860G with our high school juniors and seniors.

During the past year, I've been selling our old TI-83 Plus calculators for approximately \$60 apiece and purchasing the "replacements" – brand-new fx-9750G Plus units – for less than \$50. The difference is more than enough to cover the eBay transaction fees and it provides a little extra in the department coffers. We have found that this works similarly when swapping the TI-86 for the fx-9860G and the TI-34II for the fx-300ES. Overall, I estimate that that we have saved several thousand dollars in less than a year by switching to Casio.

What We Have Found

Transitioning to a new calculator, after using one model and one brand for so many years, certainly has its challenges. This was especially true when faced with the daunting task of changing our entire technology paradigm over the summer. Fortunately, things have proceeded very smoothly as a result of the technology's ease-of-use and Casio's outstanding support.

Functionality – fx-9750G Plus: We have found that, with the exception of the Flash upgradability that we never used, the fx-9750G Plus has basically the same capabilities as the TI-83 Plus. Additionally, the fx-9750G Plus outdoes its competition in such areas as its ease-of-use in graphing of conic sections and vertical lines, shading the graphs of inequalities, and the process of locating important graph points such as roots, intercepts, minima, maxima, and intersections. This just names a few of the every-day examples where we have found the Casio fx-9750G Plus to be easier to use.

Functionality – fx-9860G: The fx-9860G preserves my favorite feature of the now-discontinued TI-85/86 product line, which is the function key menus that appear at the bottom of the screen. This feature allows students to navigate menus without "covering" their work on the screen. It is also a feature ignored in the TI-83 Plus and TI-84 Plus product lines. I find this ease-of-use enhancement to be extremely important for students who are already at their wits' end with mathematics and/or technology anxieties. Also, the fx-9860G's ability to display expressions on the screen exactly as they appear in a textbook provides students with a clear, easy way to verify that they have entered an equation correctly.

Functionality – fx-300ES: The Casio graphing calculators are great. However, the model that really won me over is the fx-300ES scientific calculator. The scientific calculator, from another manufacturer, that we were using prior to this displays everything linearly, almost always uses a different notation than would be written or printed, costs approximately \$16 and, in our experience at our school, had close to a 50% chance of malfunctioning buttons during the first year of use. Meanwhile, the Casio fx-300ES uses a Natural Textbook Display for radicals, fractions, roots, logarithms, scientific notation, and absolute value; simplifies fractions and radicals; costs approximately \$12; and hasn't had a single model malfunction during our first year.

Training: Casio was with us every step of the way. Through their free professional development program, we were able to receive training on each of the models we needed to implement. We also received activity books with classroom activities to help provide additional ideas for the classroom. After the training, when we had questions, we always received a helpful response from the Casio training team.

Free Technology – Casio Rewards Program: Through Casio's Educator Rewards Program we have been able to get free overhead models for each of our classrooms and the new Emulator Software for the fx-9860G.

Where Do We Go From Here

When I first walked into that Casio booth last April and saw the “Less than \$50” price advertisement for the fx-9750G Plus, I did not believe that it could be true or, if it was true, that such a calculator could be anywhere near as good as the Texas Instruments calculators that I had used for so many years.

What a difference a one-hour meeting and one-year in the classroom have made. After we learned more, in all cases, we felt that it would have been a disservice to our students not to switch. Casio has proven to us time and again to be a world-class, professional organization that cares about personal contact with schools and teachers.

For More Information About:

Casio fx-9750G Plus, fx-9860G, & fx-300ES

www.casioeducation.com

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