I don’t know about you, but every time someone asks me to put my “teaching philosophy” down in writing, I balk. I find it difficult to describe in words 16 years worth of thoughts, feelings, experiences, successes and failures. So, to write this article, I had to do some thinking and I realized that I don’t have just one “teaching philosophy”, but rather several philosophies about teaching and learning mathematics. Being a pragmatist, I decided to utilize this opportunity to share my “philosophy” on how to become a better teacher, in hopes that you would find it not only interesting, but useful - that in something I say you will find a “jewel” to put in your pocket, carry around with you and, over time, morph into your set of philosophies about teaching and learning.

You have to start by realizing that, say 5 years from now, you will either be a better teacher than you are today, a worse teacher (heaven forbid!), or the same. Like all living things, if you aren’t growing, you are dying. But to grow and improve takes effort – if you do nothing, the best you can hope for is to maintain the status quo. It’s just that, even if you are a good teacher today, in 5 years what you are currently doing may not qualify for such “good teaching” anymore. So, start by vowing to work at being a better teacher tomorrow than you are today. What I would like to offer is an algorithm for getting you there. It’s worked for me – and I am as busy a person as you are likely to find in the teaching profession.

So, here it is – my 4-step algorithm for becoming a better teacher:

1) **EDUCATE YOURSELF** – Intentionally expose yourself to new ideas, strategies and approaches to teaching and learning. There are a variety of ways to do this – at least one of which is bound to fit your schedule and budget!

   Read articles about teaching and learning – make it a habit to regularly read – even if only for a few minutes each week. Great articles can be found online, in journals and publications by educators and educationally-oriented societies, from your own collection, the library or the collections of friends and colleagues. Join a professional society and you will automatically receive one or more publications. And don’t be afraid to look around – I have found excellent ideas not only in publications by the Mathematical Association of America and the American Mathematical Society, but also by the National Council of Teachers of Mathematics and the American Society of Engineering Education. Professional societies aren’t the only places to look, however. There are other sources of wonderful material. Check out the Mathematics Education Reform newsletter, “The Teaching Professor” newsletter, or the “The Professor in the Classroom” leaflets published by The MASTER Teacher. Check your library for books on teaching and learning published by Jossey-Bass. These are just a few sources that I have personally found useful. Get on the web and do a search – you are bound to find plenty of good reading material!

   **Attend conferences and workshops on teaching and learning** – this doesn’t have to cost an arm and a leg. Be on the lookout for conferences and workshops that are
sponsored by your university or in nearby cities/universities. My university regularly hosts seminars at both the university and college level on teaching and learning. These represent a mix of local experts, well-known outside speakers and even video training. Even if a speaker is hosted by a department other than your own, check to see if you can attend. I have found that almost any good presentation by a science/mathematics/engineering educator contains ideas and information that I can use in my classes! Most professional societies intentionally rotate their conference sites around the country, so their meetings should be within driving distance every so often. Don’t forget to check out regional society meetings – usually the variety of topics and speakers is greater at national meetings, but the opportunity to network with faculty geographically close to you can be most worthwhile. And, lastly, don’t forget to look at the meetings of a variety of societies. I have consistently found excellent ideas at the National Council of Teachers of Mathematics meetings, for example. I have also found the annual meetings of the American Society for Engineering Education are worth the trip. Colleagues also have recommended the annual Frontiers in Education conferences.

2) **PICK ONE IDEA THAT PIQUES YOUR INTEREST** – As you read articles and attend conferences and workshops, you are likely to find one or more ideas that grab your attention - things that you would really like to implement in your classroom. Here is what I regard as the key ingredient to becoming a better teacher for a busy faculty member on a limited budget: pick one, just one, of these ideas and incorporate it into your classes this next year. Everyone has the time and resources to make one change. The key here is patience. Don’t overwhelm yourself (and your students) by trying to change too much, too quickly. If you only make one change, you have time to educate yourself, plan and assess both your own performance and that of your students, which will greatly increase your likelihood of success! If you take on too large or all-encompassing a project, beware. I have found that by making one change each year, after 8 or so years, I can see dramatic changes in the way I teach and, more importantly, in the quality and quantity of learning that goes on in my classes.

Two words of caution here: i) being a busy mom/administrator/teacher, I am a big fan of NOT reinventing the wheel. I like to choose projects that other people have researched, used, assessed, and tweaked. They are not only far more likely to work (someone else has “gotten the bugs out”), but they are easier to implement. It is much easier to modify someone else’s handout, worksheet, grading policy than create my own from scratch. The second word of caution: ii) don’t be too quick to toss out an idea “because it won’t work where you are”. I have yet to find an idea that I was passionate about that I could not implement, given a little time to think about it. For example, I have my students do a daily writing activity – and I teach on a quarter system where we have to cover a semester’s worth of material in 10 weeks. It takes time for the students to write – as much as 10 minutes each class period – plus time for me to grade their papers. I have worked it into my classes by having the students write while I call roll and
tend to other “house-keeping” items at the end of class. I have also found that, while I prefer to read and correct each paper each day, I can skim 20 papers, chosen at random, and glean essentially the same information that I would if I had graded each paper individually! So don’t give in to the temptation to “give up” on an idea. You CAN make it work – if you are willing to try!!

3) **ASSESS and REVISE** – once you have implemented a new idea, be sure to assess! Get feedback from both your students and yourself. Then see what you can do to make it better. And don’t get frustrated – if your idea was a total flop, pull back, but don’t give up. Try to find out why it didn’t work – talk with a colleague, contact the person from whom you got the idea, informally poll some of your students. Then modify it and try it again. Remember – you have all year to tune it and incorporate it into your teaching style. One last suggestion – use research-tested assessment devices and methods, if possible. It takes time to develop your own assessment materials and, unless you are a professional in the area of assessment, your own instrument may not give you the information you need! Remember that assessment doesn’t have to be an onerous task. I frequently use a brief 3-question survey, called the G.I.F.T. technique, that I was introduced to at a workshop by Thomas Angelo. I have found that the wording of this survey is the key – I get great feedback in just a few minutes that I can review in a short period of time.

4) **GO BACK TO #1** – Once you’ve been through this process, you are ready to start back at square 1! Pick another idea that you want to implement next year, educate yourself on how to go about it, assess and revise – it’s an infinite loop! But watch out – if you keep it up, in a few years you will turn around one day and realize that you have made major changes in the way you teach…one step at a time!