

# **Personal teaching philosophy**

Teaching is my true calling and has been a part of me ever since I taught my little sister how to read when she was four years old. I cannot remember a time when I didn't teach in one form or another. In high school I headed the after-hours pupils teaching, where students help other students from lower grades. In university I created a club, The Broadway Performance Club, whose sole purpose was to organize an annual Broadway Musical with a cast made up entirely of amateur university students. This project is running still, currently in its 10<sup>th</sup> year, and each year they do 15 to 20 performances around the country. I have taught orphans, children with disabilities, students whose parents could not afford good education. I have taught in public schools, in private schools, in language and education centers. I have taught in a refugee camp in Ethiopia, on a boat in Canada, in a hospital in Nigeria, over Skype in Mongolia and Chile, at my home, in the school's backyard. Because a true calling knows no time zones, pays no attention to locations, and can be done equally well on an interactive multimedia board and with a stick in the sand. All it asks for is desire, dedication, passion, persistence...and a smile!

## **Section I: To the succinct, straight-to-the-point pragmatics among you (all others are kindly asked to refer to the appropriate section)**

Why do I teach?

I teach because:

- I am enthusiastic about it;
- It pleases me and gives me a sense of fulfillment;
- It presents a different challenge on a daily basis;
- It is my one true calling;
- It helps me grow as a person and simultaneously keeps me young;
- It dramatically changes the world and I get to be an integral part of that process.

How do I teach?

In my teaching I most often utilize the following methods in that order:

- Teaching through personal example, because I found it impossible to ask any student to do calculations by hand if I reached for my iPhone to calculate their percentage grade on an out-of-thirty-points test;
- Teaching with real-life applications of the material, because why would Tommy ever buy 138 watermelons and how on earth would he then roll them all to wherever Kate is awaiting for him to split them in a 1:2 ratio;

- Teaching with an explanation of the importance of the material, because trigonometry has its significance for Ahmad who plans on becoming an engineer, but holds no apparent value to Silvia whose true passion is playing the cello;
- Teaching with the realization that my students can teach me just as many things as I can teach them, because I have seen twenty various solutions to the same problem when I alone could devise a mere 1/3 fraction of them;
- Teaching with passion for the material, because...well, quite frankly, if I myself do not care much about the first law of thermodynamics, none of my students will either...ever;
- Teaching in a language my students understand, because they speak in posts, likes, tweets, and emojis, some of which require a new dictionary;
- Teaching together with the developing technologies, because there is nothing more entertaining than a teacher who struggles while setting up the connection between a laptop and a projector;
- Teaching with a tremendous amount of respect for each and every student, because this is the single best way to teach them to do the same for others, regardless of their nationality, race, religion, social or economic status, appearance, upbringing.

Why do I teach the way I do?

I teach the way I do because:

- It has proven successful over the years in both major aspects, the interest my students develop in the subject and their results on various valuations (where the two are in a relationship of direct proportionality);
- It allows me to expand my students' thinking rather than have them memorize an outstanding number of formulas and equations, which is rather pointless if they can simply Google them and still have no clue how to apply them;
- I can teach them values along with math or physics, or chemistry and thus become much more than a teacher, become an educator, the one who serves as an example and pushes the expansion of horizons, the one who creates curious minds that go into the world and change it;
- It helps my students turn into responsible young individuals who conquer with their problem-solving skills.

What are my teaching goals?

My teaching goals include, but are not limited to all of the following:

- Educating rather than teaching;
- Substituting memorization with learning, understanding, applying;
- Bringing out that fundamental desire to learn more;
- Having a sense of pure unadulterated joy in the process.

## **Section II: To the expressive, need-a-longer-explanation lyricists among you (all others are kindly asked to refer to the appropriate section)**

Have you ever been curious enough about learning that you taught yourself to read upside down by sitting on the other side of your father while he read the morning paper out loud? I was! And when I finally managed to get him to teach me the numbers above a hundred, I spent several days summing up all the pages of all the books in our home library. Twice! I had to, after all, make sure I had done it correctly the first time.

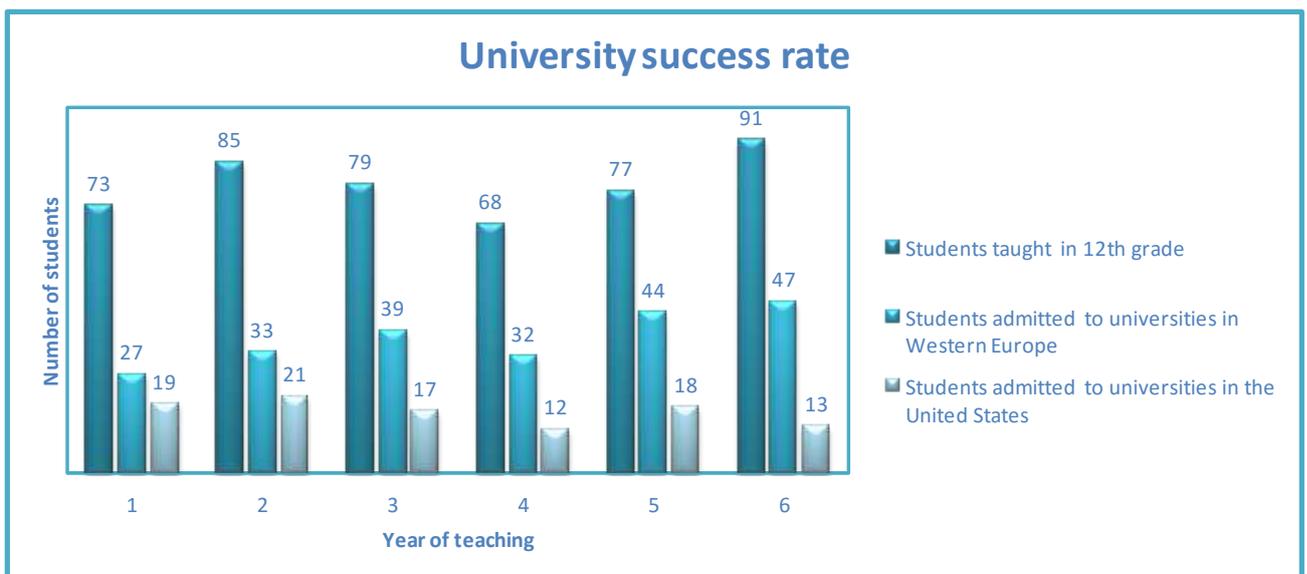
Most parents are primarily concerned with their children's grades, but I was raised by my grandmother who never once showed interest in them. Instead every day in between serving me lunch and scolding me for not washing properly she would ask me the most important question anyone has ever asked me: "Did you ask any good questions at school today?" Only after I became a teacher did I understand her genius. There is nothing more beneficial to a young mind than to let it wonder about anything and wander anywhere, because it provokes thought. Every single method I use in my teaching strives at exactly that – to bring out the innate curiosity of my students, to force them to question the status quo regardless of how outrageous their idea might seem, to make them wonder "what if...", because it is precisely in daringly standing against existing principles that science has progressed forward through the ages. The concepts of a round Earth, subatomic particles, a telephone all seemed equally insane at the time they were initially introduced and even after they were proven beyond any doubt. All life-altering scientific discoveries, however diverse, were brought forward by the same type of individuals – those who were brave enough to ask questions. Realizing the latter has transformed my teaching methods into principles of innovation: I stand in front of my students every day convinced that each of their heads holds something spectacular – the cure for Alzheimer's, a new economic system, a mathematical proof that would allow us to travel beyond the speed of light – and it is up to me to unleash it. Was it Pythagoras who had an illiterate slave prove the Pythagorean Theorem by allowing him to draw with a stick in the dirt and ask questions?

The second underlying principle of my education philosophy is that there are no bad students, just bad teachers. It is my responsibility to create knowledge and the desire for knowledge, so when a student fails to understand why some elements form positive ions while others form negative ones, it is me who failed to explain it properly. Yes, even when it is a single student out of a hundred and thirty. Some years ago I was teaching 9<sup>th</sup> grade Chemistry and stumbled upon two boys who had somehow managed to get through the system all the way to 9<sup>th</sup> grade without recognizing a single element of the Periodic Table. Needless to say I could not expect them to make any sense whatsoever of the electron configurations they were supposed to be learning at the time. I spent hours after school in attempts to teach them the elements. Alas, my efforts led all three of us to no notable success. Then I noticed the two of them would spend every recess playing battle ships on their phones and though it was a bit odd for them to play a non-electronic version of the game, I had them use the Table of Elements as the field for the battle ships. Their progress was astonishing. The day they knew all of the elements in greater detail than any of their classmates was the day I knew I was a good teacher. The day when the two of them came after school, as usual, asking if I could teach them something else about Chemistry was the day I knew I was a great teacher. And the day I had to write a letter of recommendation to one of them for university in the field of Chemical Engineering was the day I knew I was a brilliant one!

**Section III: To the graphic, need-a-visual-representation analysts among you (all others are kindly asked to refer to the appropriate section)**



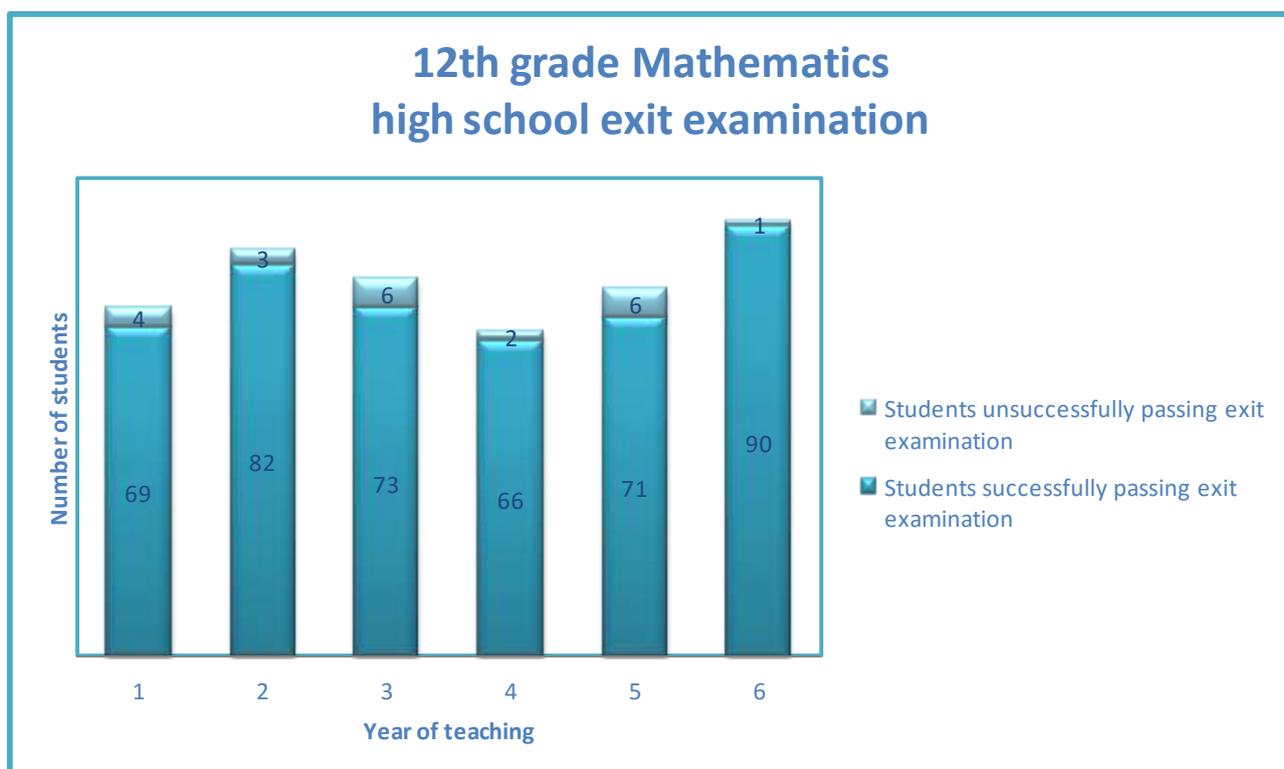
Graph 1: Courses taught with respective number of years



Graph 2: Students university admittance through the years

Biology	Chemistry	Economics	Mathematics	Physics
Principles of evolution	Detailed organic chemistry I	Introduction to microeconomics	Calculus I	Detailed thermodynamics I
Genetics	Detailed organic chemistry II	Introduction to macroeconomics	Calculus II	Detailed thermodynamics II
	Principles of physical chemistry		Introduction to linear algebra	Detailed electromagnetism

Table 1: AP, IB and university level courses taught



Graph 3: Success rate on high school exit examination for the 12<sup>th</sup> grade in mathematics