In my younger years, the most relaxing entertainment for me was to stay at home, sit on the wooden floor, and play little games. My parents could leave me alone like that for a whole afternoon without my bothering them. Most toys I played with have faded in my memory, but I can never forget the enjoyment Number Klotski has brought me. It was at the time when I still needed this game to improve my counting skills. Even though back then I was, of course, unable to reorganize all the numbers in the right order as I could deftly do a few years later, I still gained a glimpse into the world of numeracy.

Another game I can never forget is Sudoku. It was a birthday gift from my aunt at my 7 years old, and she brought me three Sudoku books with different levels. I was immediately indulged in it as soon as I figured out the simplicity of the rules. My mother always recalls with me those times when I was holding those books all the time, and that was also when she thought it was time for me to seriously learn some math.

She brought me many books, a majority of which were math books. They were all easily written for primary school kids. Among the few I still remembered, the topics ranges from seven-bridge problem to pi and golden section, and one even attempted to explain complex numbers—though in a relatively easy-to-understand way.

Once I was in a shopping mall with my mother, we got the chance of a raffle. I was excited about the awards we could get, yet mom just explained the ‘probability’ was too low for us to get anything. The reward did turn out to be *Thanks for your participation*. I tried to figure out the concept of ‘probability’ by calculating the chance and values of each of the awards. Not until later as I proceeded learning Math did I figure out the concept of expectation.

As a I grew up, all the things around me seemed to be forcing me to connect all of them with the simplest method, and that method, or connection between everything around me, turned out to be mathematics.

I was not as crazy about math as I am now at that time, but I was gradually understanding a universal rule that math, as an ideological tool, is so useful for us common people to solve those close-to-life questions and dilemmas. Without math, we shall never figure out the rules behind raffle, nor will I know the logic behind those little games of Sudokus and Klotskis.

Naturally, math became my favorite subject in Middle school. As I proceeded to access much more profound knowledges, I found that some were far beyond only application in life. It becomes a worship for mathematical history, and the awe for the unknown. It helps me realize how minuscule I am.

Later I also realized that it is not what mathematical knowledge you learn that matters, but the mathematical thinking that counts. When you are making a computer, it is very likely that you will not use Pythagoras Theorem; but without it, you can never make the computer; the same principle applies to physics, chemistry, economy, or even politics. That is the power of mathematical thinking, rigorous, courageous and beautifully presented. It tells you how to doubt, prove or deny, and how a slight deviation can damage the whole system.

In a sense, mathematics is not only a way of thinking, but also a language that describes the world. If I want to figure out what Quantum mechanics is, the most direct way is to look at uncertainty, wave function collapse, or Schrodinger equation, Quantum Bayesian model that links mathematics to quantum physics. Both are beautiful subjects, and I can often see those hidden correspondences. Two completely unrelated things can be deeply connected with each other in essence. Math is the invisible bond that reveals and connects, with beautiful languages, to everything in the world: sports (‘getting hot’ is actually related to regression), medicine (Bayes’ formula can be used for testing the effectiveness of certain treatment), military (the famous story of Abraham Wald and the missing bullet holes), lottery (to make wise decision based on the expectation), or politics (to find the optimized electoral system), etc.

That is also what I am doing. By linking mathematics to education, I did a math project on the investigation of the efficiency of different studying approaches by applying my learning in statistics and probabilities. I did an experiment in a primary school, collected multiple sets of data with different levels of practice intensity, and then gave an optimized training method by performing hypothesis testing. I am also trying to combine mathematics to real life concerns like air pollution by doing such a math project that builds a mathematical model and analyzes the variation and spread of different pollutants depending on time and season.

I wish, in the near future, I could combine math with more potential fields like social sciences. For instance, use mathematics to achieve the aim of democracy; to improve the distribution of education resources; and to eliminate sexual discrimination and toxic muscularity. The deeper I dig into these fields, the stronger I feel for tininess of my own being, yet still, I will never give up exploring in math as it provides me with infinite aspirations and dreams.