### Q & A with Eva, a Student with Dyslexia

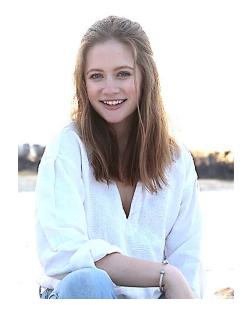


Photo courtesy of Eva.

**Eva** was diagnosed with Dyslexia in elementary school after struggling with reading, writing and math. She hopes that instructors will talk to their students with disabilities to understand how they learn best.

#### Could you tell me a little about yourself?

I am a Freshman in college. I currently have a double major in Sociology and Journalism. I am also a staff photographer for the student newspaper.

I have been an equestrian since '09 with varying riding styles such as dressage and polo.

#### What 3 words would your closest friend use to describe you?

Motivated, Kind, Smart

## As you know, we're creating a website to help instructors best teach students with disabilities. Could you please tell me about your disability?

I was diagnosed with "a specific language based disability" as a result of the initial CORE assessment conducted by my elementary school in the spring of my 1st grade year. The key findings from the CORE were "superior general intellectual ability, average and low average academic skills; differences consistent with presence of learning disability in the area of reading,

math and written language; emotional symptoms noted and found to be attributed to learning problems."

In March 2008, my parents hired an independent psychologist who did a complete Neuropsych assessment. Her conclusion was that I am a "high functioning dyslexic with high average to superior conceptual skills with weaknesses in executive functioning and working memory, meets criteria for Reading Disorder/Dyslexia". At the time I was 2-3 years behind my peers in reading, writing and math, meaning I was still at a Kindergarten level.

#### Can you please describe how your disability has influenced your academic experience in general?

My academic experience in elementary school was full of frustration and confusion. I knew that I had difficulties and I also knew I wasn't really learning how to read or write in the special education room nor when I met with one particular teacher an hour before school a couple times a week. I liked a couple of the special education teachers but to be honest, many were mean, impatient and condescending. I don't remember a lot of elementary school because I blocked it out of my mind but I do remember being told to "hurry up" a lot and I remember clenching my toes in frustration and having a lot of headaches at the end of the day.

By the end of 5th grade it was clear to my parents and the Advocate that they hired that I was not making enough progress at public school and in fact, the gap between my skills and my peers' was ever widening. My parents placed me at Landmark School<sup>1</sup> for two years. Being at Landmark was life changing and I believe those two years helped shape who I am today as a student and as a person. I gained a tremendous amount of confidence in my abilities and I was really learning. There I learned how to read and write and problem solve in math for the first time.

For my eighth grade year I was back at public school. I was able to stay in the classroom (not be pulled out for services). I was truly fortunate to have an eighth grade math teacher who had her degree in Special Education. **She understood how to teach me math by breaking the curriculum down into tiny bites then building from there through lots of repetition and connections.** In addition to being my classroom teacher, she tutored me once or twice a week. She was so good at teaching me in a way that I could understand that my family continued to hire her as my after school math tutor.

I started off my High School experience with a very rough 9th grade year. The director of Special Education and the main Special Education instructor were not understanding nor supportive of the accommodations that I required. After that bumpy year, the remaining 3 years of High School were productive and successful. I am proud of all of my accomplishments in those 3 years from taking Honor level classes, AP History, AP World, AP Literature, Honor

<sup>&</sup>lt;sup>1</sup> Landmark School serves students with language-based learning disabilities.

level Statistics (!) as well as being the Yearbook Editor and Yearbook Lead Photographer. I received the "Most Improved Student Award" at graduation because my GPA went from a 3.1 in 9th grade to a 4.2 by the end of 12th grade making my overall High School GPA a 3.7

#### More specifically, how has your disability affected your experience with math and statistics?

From a young age, I knew that math was going to be a constant struggle for me and I knew I could never slack off. I attended summer school with an emphasis on math skills. I also worked with tutors and stayed "after hours" with classroom teachers. Ninth grade was nightmarish for me because I had an Algebra class plus Chemistry which I thought was going to be a science class but it was really another math class. I struggled but held my own with Cs. For me getting a 'B' on a math quiz or test was a rare but major accomplishment; it was the equivalent of someone else getting an A+.

I had accommodations around math such as the typical time and a half to take tests plus taking tests in a separate, quiet room. Perhaps the most beneficial accommodation was having "an open notebook" when I took math tests. Due to the relative weakness of my "working memory", it was impossible for me to memorize all of the formulas to solve equations then use the correct formula to solve a problem on a test. Having an open notebook provided me the opportunity to solve the problems on the test just like in real life. By my Senior year in High School I was able to choose an elective math class. My first choice would have been to have no math class at all but I was informed that this was not an option. I decided to take Statistics. I had heard that it wasn't too 'mathy' and I thought, well that's the one for me.

On the first day of my Senior year I met the new teacher for the Statistic class. He was a very tall Scotsman with a thick beard and a thick accent. He told stories and made real life connections with the lessons we were learning in stats. As the days passed I found that statistics was coming very easy to me simply because it seemed physical and I could understand the purpose of statistics in real life. Within the first couple weeks of the class I was doing so well that my teacher encouraged me to take the class at an honors level. An honors level math class was unthinkable for me prior to my senior year. By the end of the year I was exempt from the final exam since I had an "A" average in the class. For me this was one of my greatest accomplishments in High School. I am not sure if it was due to my teacher's amazing teaching style or if I finally found a math subject that clicked with me. I am now more confident about taking Statistics as my General Studies requirement in college.

#### What are some strategies you found helpful when learning math and statistics?

Use everyday life to make connections.

Have the math terminology and definitions neatly written out in a notebook.

Talk through the problems to get to the answers.

Use repetition and circling back often.

Having exemplar equations written out clearly to use for homework and assessments.



Photo courtesy of Eva.

Please describe things that a previous math or statistics instructor or instructors did that were helpful in learning the material.

Physically seeing visual examples of geometry was very helpful for me. Seeing how and why it's important to know angles, for example, as a construction worker.

Simple everyday objects such as using measuring cups, teaspoons and tablespoons to understand fractions and volume.

At Landmark, the head of the math department used many visual and kinesthetic tools to help us move through math problems. One vivid memory was a graph made with rope on an incline of a hill. The X axis was at the lower part of the hill and the Y axis was going vertically up the hill, then we would find the coordinates and stand at that point once we had the answer.

The Landmark teachers also laid out a number line and the students would stand on particular numbers and move our bodies up and down the number line to solve equations together.

## Please describe things that a previous math or statistics instructor or instructors did that were not helpful in learning the material.

Students should not be told to "hurry up" when doing math.

Using only textbooks to teach a class is disastrous not only for students with disabilities but for all students in the class.

# What advice would you give to math and statistics instructors who are going to work with students with a disability like yours?

Take the time to learn how students with disabilities learn best. It could be that they need to talk through a problem or move their bodies, or write out the equation themselves many times. Once there is an understanding about what they really struggle with and how they are able to grasp information then it will be a less painful process for both student and teacher. Like all things in life everyone learns differently so accepting those differences is crucial. Know that some students may be able to understand some aspects of the curriculum yet in a topic that's closely related they can suddenly be very confused.

Math is a foreign language to some people and it should be acknowledged so that those of us who struggle with the "language of math" don't feel dumb.

#### How do you suggest instructors create inclusive and accessible classrooms?

Be sure to meet with the student with a disability. Again, find out what works for them. For example, some students may really want to be called on in class while others prefer the spotlight is not on them. Remembering that every student is a different learner is key to enable an inclusive environment.

#### Is there anything else you would like to add that we haven't covered?

Keep in mind that even though dyslexic students are diagnosed as "disabled" that is usually not the case. **The dyslexic students that I know want to learn and push themselves to work hard until they "get it".** We can do the work but may just need it taught or explained in different ways. We might need more time and we probably need lots of visual cues and lots of repetition but we can learn and do math.