

# Q & A with Melissa, a Student who is Blind



Photo courtesy of Melissa.

**Melissa** was diagnosed with Retinoblastoma, a destructive form of eye cancer, at 18 months old. She is eager to help Professors learn more about the importance of making their classes accessible to students with disabilities.

## Could you tell me a little about yourself?

I am a senior pursuing a double major in English and Psychology. I have recently begun to explore the world of politics within an academic environment as well. I, along with 4 other students, were accepted into a newly launched program in which we take politics courses at the University of California's campus in Washington DC for one semester, while interning with organizations of our choice. I am working at the National Council on Independent Living (NCIL) as a Fall Policy Intern. NCIL is a grassroots organization run by and for people with disabilities that focuses on equal rights and independence for the disabled community. NCIL is very active on Capitol Hill, and advocates for legislation such as the Money Follows the Person, Disability Integration Act, accessible voting, and so on.

During my time in college, I was honored with a scholarship by the National Federation of the Blind in 2017, award of academic excellence in Psychology in 2017, and the Robert Sibley Prize for English Composition in 2016. In addition, I serve as a Peer Fellow for incoming freshmen with disabilities through the Accessibility Services office. I teach them about the accommodation process, connect them to important campus resources, help them resolve access barriers, work with them one-on-one as issues arise, and lead presentations about self-advocacy, time management, discrimination, and other related topics.

I currently serve as the secretary of the National Association of Blind Students (NABS), President of the Connecticut Association of Blind Students, and secretary of the Massachusetts

Association of Blind Students. I worked at IBM in Cambridge, Ma over the summer on their Aging and Accessibility Team, in which I put together presentations on accessibility and inclusion in the workplace, and researched bias in artificial intelligence against people with disabilities. I won a 2018 Beacon Award, which recognized my commitment to accessibility in the community, as well as my volunteer work with High Hopes Therapeutic Riding, Inc., where I put together a promotional video that raised thousands of dollars for people with disabilities who could not afford to horseback ride on their own. I am an avid singer, horseback rider, and skier.

After I obtain my bachelors, I plan to pursue a doctorate in Clinical Psychology or attend law school.

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

The 3 words that my closest friend would use to describe me are compassionate, driven, and loyal.

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

When I was 18 months old, I was diagnosed with Retinoblastoma, a destructive form of eye cancer. Due to the aggressive nature of the cancer, as well as multiple failed radiation treatments, I lost all of my sight. I am completely blind in both eyes.

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

While blindness evokes its fair share of daily challenges, I continue to hold a positive attitude towards my disability, and do not impose limitations on my abilities. That being said, I have faced many challenges and access barriers along the way. **Much of society is designed in a visual format, and it has been difficult at times to gain equal access to course materials. I have to work much harder than the average college student, simply because I cannot afford to take certain luxuries for granted and assume that everything will fall into place; my courses demand a great deal of active and advanced planning.** Whenever a film is presented, I have to track down a transcript or arrange for sighted peers to describe the visual components. Whenever a visual project is assigned, such as making posters, cartoons to illustrate certain topics, and so on, I have to brainstorm creative alternatives. In addition, some professors are not as accommodating as others, and I have been forced on several occasions to play catch-up. However, I have become a much more effective problem-solver and self-advocate as a result of the challenges I have faced. I have learned different adaptation techniques, approaches to collaboration, and so on.

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

Math and statistics have always been the biggest challenge in an academic environment, simply because many aspects are visual by nature. Graphs, charts, and complex equations are not initially engineered to be accessible; often times their sole purpose is to convey information in a visual format. I have had to utilize and develop many trouble-shooting techniques. I have had to struggle with mountains of braille book volumes, transforming complex equations into accessible digital formats, and so on. **Math and statistics are very much a hands-on experience; it is impossible, in my opinion, to complete the associated work independently without sighted assistance. It is necessary for professors or peers to explain visual concepts so that I can best participate and build my own knowledge base.** I have to spend many extra hours interpreting tactile graphs, inputting numbers into a document while using a screen-reading software that has a difficult time translating math symbols, etc. However, while it can be a bit of a tedious and time-consuming process, there are ways to make math and statistics accessible, easy to understand, and practical, such as receiving in-person assistance, creating tactile graphs, reviewing modified PowerPoints, and so on.



Photo courtesy of Melissa.

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

I find it helpful to build a healthy relationship with the professor in order to openly communicate about what works well in the course, and what could improve. It is important to have the appropriate time to absorb all of the necessary information and transform visual concepts into my own concrete understanding. Sometimes it takes a few trial and error scenarios to find the best strategies for making the course material accessible, but with greater feedback comes desirable results. **Tactile graphs and supplements are crucial to my understanding of math and statistics. It is one thing to verbally describe a trend to a blind student, but another to enable them to feel and explore the trend on their own. Even blind people utilize visualization techniques.** In addition, accessible PowerPoints allow me to keep up with my sighted peers. Just as the students are able to flush out certain concepts visually, it is helpful to be able to listen to what is being displayed as the professor verbalizes it; it further reinforces and solidifies the lectures.

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

**I have only had two math and statistics instructors who truly dedicated their time and effort to accessibility. Both of these instructors began brainstorming strategies to make the course material accessible before the semester even began. They spoke with disability advocates, technology consultants, and myself so that we could hit the ground running. They identified problems before they turned into real issues. They were excited to adapt their assignments and create unique ideas.** One of my professors in particular checked in with me on a regular basis in order to see if there was anything else he could do to make my statistics course more enjoyable. He spent numerous hours with me outside of class relating visual concepts to the other four senses, walking me through tactile supplements, reviewing large PowerPoints in detail, and so on. He was always more than willing to answer clarifying questions, explain concepts over again, and receive suggestions on how he could better his techniques in the classroom. He always made sure that I had access to the accessible materials that accompanied his lectures and homework, going as far as to organize tactile supplements before class and hand them to me himself. He stayed in constant communication with both me and the disability office in order to keep us all in the loop.

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

**Most of my math instructors were not prepared to take on a blind student. They were quick to pass on the responsibility of accessibility to my braille transcriptionist, rather than investing their own time and resources. They rarely checked in with me regarding the accessibility of the course.** I found myself feeling very isolated and discouraged from going to them for extra help or problems that arose. There were many instances in which they would help me plug in equations into my talking graphing calculator, but never describe what the actual graph looked like. They did not verbalize everything they wrote on the board, and there were times when I missed out on valuable information. They were rarely open to alternative assignments or modifications, falsely believing that if they altered the material in the slightest, I would have an unfair advantage over the rest of the students. Overall, I would not receive my assignments or their respective feedback in a timely manner, I was excluded from visual exercises in the classroom, and so on.

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

**If you are unsure of how to proceed, always ask questions. It is better to ask about a student's learning preferences than to assume. By showing that you are curious and willing to adapt your own teaching techniques, you encourage blind students to become much more open with you in return.** Professors can often learn just as much from students as students can learn from them. It is also important to recognize the visual bias in today's society. Something that may appear to be straightforward for you is not always the best approach for someone with a visual impairment; think outside the box whenever possible. Make sure that you address issues before they escalate into full-blown problems, give assignments to the blind student in advance so that you both have room for trial and error, and be open to suggestions.

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

Make sure that students feel comfortable asking questions. Sometimes we may need instructors to repeat information, explain a specific concept in a different way, or verbalize the visual material a bit more. **If the professor has concerns or questions about making the classroom inclusive and accessible, they should not hesitate to reach out to students for feedback. I also think that it is important for instructors to educate other students on accessibility and inclusivity as the course progresses.** In group settings, students have a basic responsibility to present material in an accessible way as well so that every member of the group can equally participate. Many students

could benefit from learning about the challenges their peers face on a daily basis, and how they can best assist when necessary.

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

**While professors are required by law to respect the accommodations set by students and their disability offices, there continues to be a disconnect between how accommodations appear on paper, and what the actual application of those accommodations looks like.** Professors need to be willing to have those conversations in order to determine how they can best provide support to students with disabilities. Accommodations require a team effort by both parties, and the ability to properly communicate, learn, problem-solve, and grow.