

Strength in disability

Ken O'Neill earned his Ph.D. in mathematics from the University of Strathclyde in 2012. Today, he is assistant statistician in the input-output statistics branch of the Office of the Chief Economic Adviser in the Scottish government. In his spare time, O'Neill, who has been profoundly deaf since birth, heads a project aimed at expanding the representation of mathematical and statistical terminology in British Sign Language (BSL). This interview has been edited for brevity and clarity.

Q: What are the most important barriers for deaf students?

A: Hearing teachers have little understanding of the broad impact of deafness and how to meet the needs of deaf children. For example, deaf students often have poor access to English, so it's more difficult for them to write answers to questions. Also, the insufficient specialist vocabulary within BSL makes it difficult for deaf students (and interpreters) to learn and communicate technical details.

Q: Tell us about your efforts to expand the BSL Glossary for mathematics.

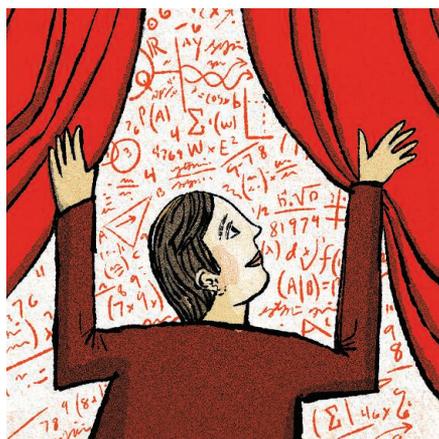
A: A friend led me to the Scottish Sensory Centre in Edinburgh. I initiated discussions geared toward expanding the signs available for mathematics and statistics, and in 2014 the center put me in charge of these efforts. We have secured funding and are about to have a workshop where deaf mathematicians and scientists will work with linguists to create signs and terms based on the national math curriculum.

Q: When you were being recruited for your current job, at what stage did you reveal your deafness?

A: On the application form, the Scottish government invited applicants to claim a guaranteed interview or assessment under the Positive About Disabled People scheme. I made the claim and was treated positively.

Q: How would you advise scientists with a disability to respond to interview questions about performing the essential functions of a job?

A: I'd advise them to do it honestly, without dwelling on their disabilities. The focus should be on the job and how they can do it. If they do things differently for any reason, that's fine as long as it's explained clearly and realistically. Interviewers will be reassured when



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there are positive solutions.

It is perfectly possible to make a disability come across as a positive contribution to one's work. I have excellent visual skills due to my use of sign language, which are helpful in mathematics. When asked about communicating with colleagues, I respond that my experience with both deaf and hearing cultures—the deaf community views itself positively as a linguistic and cultural minority—means that I'm bilingual and bicultural. I appreciate the importance of different languages and how messages need to be targeted toward a specific audience.

It is important to not emphasize how disabilities affect our jobs negatively. This sends false messages to employers that we are

not confident in doing our jobs, and employers will often fear what they do not know.

Q: What skills can scientists bring to the workplace as a result of their disabilities?

A: We have encountered problems or barriers in the workplace due to our disabilities and found ways to remove them. As a result, we tend to have a greater understanding and awareness of problems and how to deal with them than do scientists who have no disabilities. We also view the world differently, so we can provide a different perspective on real-world problems and models.

It is up to us to explain this clearly. We have to project confidence that we know what we are doing and talking about.

So we have to deal with any underlying issues we have, including our own attitudes toward our disabilities. If we accept our disabilities, then we will inevitably be better equipped to go about our daily lives and work comfortably. ■

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