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The Roots of Educational Audiology in Ontario: An Interview with Carolyne Edwards

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Pam Millett, PhD, Reg CASLPO



Carolyne Edwards

My career as an educational audiologist began in 1987, first at a job that combined clinical work with an educational audiologist contract with the local school board in London and subsequently at the Robarts School for the Deaf in London, Ontario. I spent my time in schools fitting and verifying FM systems, providing in-services to classroom teachers, supporting teachers of the deaf, evaluating classroom acoustics, and performing comprehensive auditory skills assessments. At the school for the deaf, while I did testing hearing and prescribed hearing aids, I spent at least as much time working directly with students in auditory training sessions or teaching them to read their audiograms. At the time, I did not realize that this model of how an audiologist could work was quite new in Ontario, pioneered by an audiologist in the late 1970s with a vision for a new way to support students with hearing loss at school. Her name is Carolyne Edwards. I owe much of what I learned about being an educational audiologist to Carolyne, who over the years became a mentor during the time I spent as a member of her practice, Auditory Management Services. I am excited that she kindly agreed to take a trip down memory lane with me to talk about the early days of educational audiology in Ontario and answer some of my questions about the evolution of

educational audiology over the years.

Carolyne's bio includes a Master's degree in audiology from the University of Western Ontario (1976) and an MBA from the University of Toronto (1990); she subsequently graduated from the Gestalt Institute of Toronto's postgraduate training program in psychotherapy in 1994. She has lectured and published widely and taught at Dalhousie University, University of Calgary, York University, and Western Ontario. Carolyne was the recipient of the CAA Paul Kuttner Award in 2015 – presented to a pioneer in audiology who has "boldly gone where no one has gone before" and is the first to embark on a new program or procedure that has impacted audiology service delivery in Canada. In addition, she is a Registered Psychotherapist and currently serves as Executive Director and Senior Faculty of the Gestalt Institute of Toronto.

What was the state of school-based services in Ontario in the late 1970s?

Carolyne began in the field in 1976 at the E.C. Drury School for the Deaf in Milton, Ontario. She explained that there were audiologists at schools for the deaf across Canada. Still, although they may have been called educational audiologists, their roles were very similar to those of clinical audiologists, just with a different population and in a different setting. Audiologists at the schools for the deaf were generally only conducting pure tone audiograms for students to establish that they met the audiological criteria to attend and do hearing aid fittings. Power BTE hearing aids were still new at that time for children with profound hearing loss – and were a motivating force for students who were otherwise rejecting amplification. She found herself wondering, "what is the point of only doing pure tone audiograms to prove that kids still have a profound hearing loss?" Audiological assessment was not adding anything meaningful to the teacher's understanding of the children's auditory abilities. Teachers' expectations of a deaf child's ability to use their residual hearing with amplification were limited (for context, Norm Erber's seminal book, Auditory Training, would not be published until 1982). She found that teachers of the deaf were primarily focused on teaching vocabulary, syntax, and speech training; semantics and pragmatics were in their infancy in application to language learning in schools for the deaf at that time. Introducing considerations on how to optimize a student's use of residual hearing was important to translate into more natural language and communication development. Carolyne recognized the need to provide more relevant information about the implications of a student's hearing abilities for the classroom. She began developing and using protocols for assessing auditory perception beyond the traditional pure tone audiograms, SAT or SRTs, and word discrimination scores. She noted that it is interesting that these speech perception assessment protocols have been adopted by cochlear implant programs to evaluate a child's use of audition but are still not used widely in clinical practice for children with varying degrees of hearing loss as they are by educational audiologists.

Along with providing more educationally relevant auditory assessments for educators, Carolyne began to expand her focus to students educated outside of the schools for the deaf. She advocated for more active outreach services from the schools for the deaf to local school boards, which provided outreach services only for preschoolers. Upon leaving the E.C. Drury School, she approached school boards to present a new model for providing audiology services for their deaf and hard-of-hearing students. She noted that it might have been a more compelling argument to duplicate the model widely used in the US and offer clinical audiology services by having an audiology clinic located within a school. However, Carolyne felt it was very important that the roles of educational audiologists didn't overlap with those of clinical audiologists. She was very clear that the focus for educational audiologists needed to be on the student in the classroom. Carolyne noted that clinical services were widely available to families in Ontario supported a

model for separate educational audiology services. She began with conducting a needs survey in the mid eighties with one of her first school board contracts, the Waterloo Catholic District School Board, which uncovered a wide range of communication and educational needs that had not been addressed (for example, almost no students reported knowing how to use their hearing aids with the telephone and self-advocacy skills were minimal). By this time, FM system technology had moved away from the desk-mounted auditory trainers and the first body-worn auditory trainers (we both remember the Phonic Ear 421 with custom earmolds and power receivers) to more sophisticated FM systems connected to personal hearing aids. However, as a study conducted by Carolyne and Marshall Chasin in the Toronto District School Board in the late 1980s revealed, the importance of verifying the coupling of the hearing aid to the FM system was critical. Verification of FM systems coupled to personal hearing devices became a key focus of educational audiologists in Canada; the benefits of an FM system to improve speech understanding across distance and in noise are obviously cancelled out if the FM system coupling introduces distortion and alteration of frequency responses.

Carolyne's practice, Audiology Management Services, was the first private practice in educational audiology in Canada and grew to include a staff of educational audiologists. One of her many initiatives offered 5-day summer seminars for audiologists and teachers of the deaf and hard of hearing, covering a wide range of topics from functional hearing assessment to new FM system technology and verification of FM systems and recent developments in the field. These seminars represented virtually the only opportunity for itinerant teachers of the deaf and hard of hearing to receive current information and updates at the time, offering much-needed opportunities for professionals from across the province to meet and collaborate. She is grateful that as a measure of the maturity of educational audiology there are now a wide variety of opportunities for educational enhancement for educational audiologists and educators of the deaf and hard of hearing.

What do you envision for the future of educational audiology in Canada?

Carolyne's response is very clear — "Educational audiology needs to be established in every school board. Educational audiologists still haven't tapped the full scope of what educational audiologists can do". At its heart, the crucial question for Carolyne is, "how do we optimize hearing for every child?" She noted that, for example, management of the classroom needs of students with chronic otitis media and minimal or unilateral hearing loss needs more focus. Carolyne explained, "we have to be advocates for those children because they get lost so easily."

She sees a crucial need for attention to classroom acoustics in new school builds and teachers' awareness of the impact of noise on listening in the classroom. While some school boards have been convinced of the benefits of installing sound field systems in every classroom for general education, it is not clear that these systems continue to be maintained and well-used after the excitement over the initial project wears off.

Counselling for students is a crucial need for which we need time allocated, particularly for students with milder hearing losses - "how do we reach children at a critical age so that hearing loss becomes a part of them, not a separate and hidden part of them?"

She noted that some school board administrators may not be aware of the need for educational audiologists and that ratios of educational audiologists to students are not where they need to be. School boards have developed an understanding of the importance of speech-language pathologists

in schools, but this is still evolving for the role of educational audiologists. Carolyne noted that she believes so strongly in the concept of educational audiologists as an advocate for audition, for "optimizing vs. coping."

My final question for Carolyne was one I have often asked myself - "why do you still practice in educational audiology after all this time?" Carolyne's response reflects her career-long commitment to students and families and innovative, outside-the-box thinking. "I love the pioneering part of it. We can continue to create, there's always something more to discover. I like the variety. I love learning from the kids. There's always something more to contribute and something more to discover. Collaboration with teachers of the deaf always stretches me because they are always asking questions that make me think. It's a very expansive position, I'm given room to determine the best way to allocate my services. I love the fact that I can spend time counselling a child, and I can go back to them if I need to, and that we always factor time in for counselling. Although educational audiology is still only a small part of the field of audiology and audiology students hear a little about educational audiology in their training, I am always delighted to see students interested in this area since they are our future."