Western Faculty Profile: 
Dr. Lisa Archibald

Background

Dr. Lisa Archibald is an Assistant Professor in the School of Communication Sciences and Disorders at Western University. A former clinical speech and language pathologist, Dr. Archibald now directs the Language and Working Memory Lab at Western, investigating how language and memory processes interact in both children with typical language development and those with impairments in language development. WURJHNS member, Alice Tan, had the opportunity to interview her and learn more about her career and path to research.

“How do memory and language processes interact? What role do memory processes play in language impairment? How do memory and language processes interact in children both with and without language impairments?” These are the questions that Dr. Lisa Archibald, Director of the Language and Working Memory Lab at Western University, seeks to answer. Dr. Archibald completed her B.Sc. at Brock University where she developed an interest in speech pathology after taking a communication science course. After obtaining her M.H.Sc. in Speech Language Pathology at the University of Toronto, Dr. Archibald worked as a speech pathologist for a number of years. While she was doing clinical work with children who had language impairments, Dr. Archibald came across something that piqued her interest. “I noticed that while some children only exhibited weak language skills, there were numerous children who also struggled with memory and other cognitive skills. Could that be impacting their talking skills?” asked Dr. Archibald. She suspected that poor memory skills, rather than a specific weakness in language skills, were the cause of the language difficulties in these children. “I wanted to look at that question in more detail, which led me to pursue a Ph.D. in Psychology at the University of Durham, UK. After completing my Ph.D., I came to Western’s School of Communication Science & Disorders, bringing together my interests both in cognitive development and language impairment.”

Today, the Language and Working Memory Lab focuses on the interaction between language and working memory. Working memory is the ability to hold information in your brain and simultaneously perform a cognitive processing task on that information. An example of working memory is the ability to perform mental arithmetic. As Dr. Archibald explains, “when doing mental arithmetic, for example summing together two and five, you have to simultaneously retain the numbers two and five in your memory while performing the arithmetic on those two numbers in your head.” One of the on-going studies in the Language and Working Memory Lab involves measuring learned skills (such as reading and math) and cognitive skills (such as memory and reasoning) in children to determine whether there is a connection between them. Clinically, Dr. Archibald’s lab also examines the effectiveness of language-related or memory-related intervention activities in children struggling with either language or memory-related skills.
With her research, Dr. Archibald hopes to make theoretical advancements in understanding how language and memory interactions develop as children grow up. “With that knowledge, we could make significant practical contributions through changing the way that teachers and speech pathologists support children who have language learning disabilities.”

Dr. Archibald acknowledges that being a researcher has both its ups and downs. “What I love about research is that you can take the time to try to get to the bottom of any question you have. You are the driver of your own research; you can slow things down enough to get all the little pieces you need to figure out how to put your puzzle together. The research program is particularly effective here at Western because there are so many experts from many different fields with whom you can work to solve the puzzle. However, when you get into research, you will also eventually realize that the research question you had is much more complex than you originally thought. You will have to settle on finding the answer to a small part of your original question, which will then lead to another unanswered part of your original question. It takes time to adjust to the fact that each little piece builds on the next, and sometimes you have to look for those small steps before you can really tackle the large questions. What you thought you had already answered in your Ph.D. thesis may actually take your whole career to figure out. The job itself is also hard work; you always have to be prepared. As you publish your work, you get critical reviews of your work along the way, which can be somewhat of a struggle, but also drives your thinking.”

Dr. Archibald advises undergraduate students interested in research to get involved by contacting professors working in areas of their interest. She also stresses the importance of keeping options open and having plans that allow you to envision different ways to get involved in research at different stages of your career. For Dr. Archibald, research was always an option that she could pursue along the way during her clinical work. “I started off in a clinical career path, but at certain junctions in my career I considered going off to pursue research,” explains Dr. Archibald. As a final piece of advice for undergraduates interested in research, Dr. Archibald suggests constantly being on the lookout for opportunities to engage in research, even in small ways. “This will help to set up opportunities that will come your way later,” she concludes.

To read more on Dr. Archibald’s lab and research, please visit her website at:  
http://www.uwo.ca/fhs/lwm/