Braille Literacy Canada 2024 Symposium Transcript: What’s the problem with pre-braille? Revisiting early braille literacy (Adam Wilton, PhD, Provincial Resource Centre for the Visually Impaired)

**Kim Kilpatrick**

We are coming up to three, or 12 or whatever time it is where you are. And I noticed some people from the UK have joined us, and they’re in the evening time. Alright, Welcome, everybody. My name is Kim Kilpatrick. I'm the current vice president of Braille Literacy Canada. I'm very pleased to introduce Adam. I'm very excited to serve on the board with Adam, and one thing I just love about him is whenever he talks about braille, he has energy and enthusiasm and a passion about all things braille. He coordinates the Braille Bites, and you have heard some of those between our presentations today – beautiful little videos to help with braille. He is the program manager for PRCVI in Vancouver. So, I will not talk anymore because you really want to hear him, you don't want to hear me. And his title is what is the problem with pre-braille. So, thank you so much, everyone for being here. And thank you, Adam, for your presentation. And we will take the q&a after Adam is finished.

**Adam Wilton**

Thank you so much, Kim. I'm delighted and honored to serve on the board with you as well. Hi, everyone, my name is Adam Wilton. As Kim mentioned, I'm the program manager of the Provincial Resource Center for the Visually Impaired, based in Vancouver, Canada. And before I go any further, I'll tell you a little bit more about myself. But I'll just make sure that everyone's in the right place. So if you're here for “what's the problem with pre-braille: revisiting early Braille literacy”, then you are in fact in the correct Zoom Room.

I’m going to move to my second slide, and I’d just like to acknowledge my traditional territories. So, the Provincial Resource Center for the Visually Impaired is based on the ancestral and unceded lands of the Musqueam, Tsleil-Waututh, and Squamish nations. And I'm grateful to be able to live, work, play, research and share knowledge from these ancestral lands. Pictured on the slide is the Vancouver British Columbia Skyline with the North Shore mountains in the background, and the emblems of each of those three nations superimposed on the slide.

My third slide. So, before I get into the topic of the slide, which is titled What do we mean by air quotes, “pre-braille skills,” I want to tell you a little bit about who I am, and what brings me to this presentation. I am a teacher of students with visual impairments, I've worked in the field for the better part of 17, almost 18 years now. And most of that time, I've spent either as a teacher of students with visual impairments, an orientation and mobility specialist, or now an administrator in the field. Which means I still get out there, but I mostly sign a lot of checks. I'm the invoices guy, I'm kidding. So, in this role, I get the privilege of traveling the province of British Columbia, and meeting with my colleagues, teachers of students who are blind or partially sighted, and of thinking and talking a lot about how we're getting students ready for school. I don't know that any of us can ever truly be ready to start school, it is a major transition in the life of our young learners. But what we're going to talk about today is the concepts that we as professionals, and as parents, as guardians, as the educational team bring to that child's transition to school, and how our frameworks, our frames of mind, can often impact the programming and intervention decisions that we make on behalf of learners. So, let's go back to the start of this slide. And so, as I mentioned, I'm posing the question here. What do we mean by pre-braille skills? And, if you remember, the title of this presentation is "what's the problem with pre-braille", and I'm going to give a little spoiler away to you. There is no problem with pre-braille except in how we think about it, and how we frame it. And so, we're going to talk about those frames of reference throughout this presentation, in hopes of making what we traditionally think of as pre-braille instruction more inclusive and more relevant for a broader range of learners who are blind or visually impaired, including those with multiple exceptionalities and those who are deafblind.

So, what are pre-braille skills? Well, if you look at any literacy textbook in the field of blindness and low vision education, you're going to get slightly different responses to these questions. Some people associate pre-braille skills with an egg carton and six ping pong balls, or the six cup muffin tin and the tennis balls. Some people associate pre-braille skills with tracking stories, learning to move two hands left to right, enrich literacy contexts. So, the concept is quite varied. I've got a very short one sentence definition here from the Paths to Literacy website that I'm using as kind of an overarching definition when we talk about pre-braille skills. So, skills that are designed to increase tactile awareness and perception in individuals, and here's the key part, who will learn to read and write in braille in the future. In that definition of pre-braille, notice that there’s a level of prediction happening here. There's a bit of crystal ball work happening, if you will, where we're predicting and making projections about a student's learning media. From the Texas School for the Blind and Visually Impaired outreach program, they've got a great list of pre-braille skills, so skill areas. So I'll just read these out, and perhaps these will spark some recognition or remembrance on the part of those of you who are with us today, whether you're educators, whether you are braille users, whether you are someone who is an advocate, or friend or colleague of those who read and write in braille. So, we've got looking at students grasp, so their pincer grasp, their palmer grasp - So grabbing with a whole hand, versus forefinger and thumb. Rotary motion, you know, the ability to open jars, the ability to even just give a really enthusiastic thumbs up requires rotary motion. Finger isolation, so being able to use fingers in isolation, and not as an entire unit is thought of as being key for our students who will eventually learn to read and write in braille. Bilateral hand use, so being able to use two hands in unison, in coordination. Dexterity, are students able to manipulate objects effectively and gracefully. Are students able to use a light touch. And so, you know, we often think of early braille reading and writing as requiring that light touch, so students are able to perceive first raised lines and point symbols, and then moving on to embossed lines and embossed characters. And then finally, I mentioned this before, the tracking stories. You know, some of my best memories as a teacher of students with visual impairments is working on really fun tracking stories with students, like how many students are on the school bus? and that's the number of full cells in the line, or frogs on a log, and stories like that. Pictured on the slide, just to kind of dial in to this concept of pre-braille skills, is a photograph of someone, I think this is called Cat's Cradle where they weave yarn in between fingers to form like a little pocket or a pouch, an activity requiring one to be able to use fingers in isolation.

So, as I mentioned from the outset on this slide, there are many lists out there, whether they be web based resources, or in some of our favorite professional texts and guides, related to what we think of as pre-braille skills. But we're not really here to talk about those specifically today. We're looking to broaden our concept here. So, I’ll just move on to my next slide here, and ask the question, what does pre-braille imply? What does this term imply? Well, there's a couple of thoughts here. The first, if a student is learning pre-braille skills, there must be some evidence that braille reading and writing will be an effective and enjoyable learning medium for the learner at some point in their educational career. One would imagine, quite soon in their educational career. And so how do we determine this? Friends, I would love to talk with you in depth about the learning media assessment process, this is a great area of interest and passion for me. But the answer would be, where do we find this evidence? Through the learning media assessment process, a systematic process of collecting data on students most efficient and preferred sensory channels for learning, and then working to make a team-based decision on the most effective learning channels, and by extension, learning media for that particular student. Whether it be standard print, enlarged print, braille, dual media, a symbol system, and evaluating the role of audio as well and audio assisted reading.

**Adam Wilton**

The other implication of the term pre-braille is that the learner is on a path. They're following a developmental trajectory to learn to read and write in braille as their primary or secondary learning medium. So what I would put to you is that pre-braille assumes a starting point, and assumes a destination. That this is a learner who is starting on the path to learning tactile reading, and that the destination here would be fluent and effective and, I would add, enjoyable tactile reading. Alright, let's move on to the next slide. So let's contrast that with what we mean by tactile learning. So if you dig into the tactile learning, and let me also just preface what I'm saying here. When I refer to tactile learning, I'm not referring to the general learning style, the tactile kinesthetic learning style. This is not what I'm referring to. So just to be clear, when you're searching for tactile learning, you do need to filter through quite a bit related to learning styles research, which is not really what I'm referring to here. But if we're thinking of tactile learning more broadly, what we're referring to is a proximal sensory modality. So touch is a proximal modality, as opposed to a distant sense, like smell or hearing or vision. Touch is a proximal sense, it requires direct contact, or close contact with an object or surface, or whatever is going on within that learners immediate experience in order to provide direct access to information. So in tactile learning, we're exploring the physical properties of objects and surfaces. And whether that be texture, whether that be temperature, whether that be consistency, these are all dimensions that are most effectively explored through touch. And more so in some cases than vision, when you think of minute or very fine details related to texture, to temperature, or to consistency. This is where touch is superior in many ways than just visual access alone. Tactile learning also involves understanding spatial relationships between objects, or points in space using proprioception. So if we think of, for example, exploring, let's say a play structure in a playground, well if we've got one hand on the top of the ladder, and we've got another hand, that is sorry, one hand that's on the first rung of a ladder on a playground, and we can reach up and feel the top of that short ladder, maybe two or three rungs up, then we have a sense of that ladder, just from where our hands are placed in space.

There's a quote from an excellent book that if you're not aware of it, this is, you know what? Friends, This wasn't even pre-planned. I literally have this book on my desk at all times. It's Reach Out and Teach. So you can kind of, maybe not, but those of you who are accessing the video, I'm holding it up. It's a book that is currently available through APH press, and it's geared to families. The author is Dr. Kay Ferrell. And the reason why I love this book is it has not only professional guidance and information, but because it's written for a parent and guardian audience, it's really warm and inviting in terms of its content. And so this is a quote from Reach Out and Teach. Beginning quote. “Your child, having mastered the basics of movement and hand use, is now able to learn through her hands. If she uses vision for some of her learning, her touch will be used with her vision to confirm and add detail and dimension to the knowledge of the world around her.” So when we're thinking of tactile learning, we're thinking really of sensory efficiency, we're thinking of touch in the context of other senses, a multi-sensory approach. Within that though, the tactile sense is afforded equal standing with other sensory modalities. We're not thinking of touch simply as a means of manipulating objects or, you know, picking up, putting down, moving things. We're not thinking strictly in terms of the utility of touch, we're also thinking of it as a viable and valuable sensory channel for gathering information. Okay, we're going to move on to my next slide here.

So, let's contrast these concepts of pre-braille and tactile learning. So pictured on the slide, I've actually got a bit of a contradictory picture here. Because we've got a student who is looking at a small, what I would call like a refreshable braille brick. Almost like a Rubik's Cube, but in a two by three dot matrix, and the student is looking at it very closely, and he's sitting in front of a CCTV, and is able to view it in front of him as well. But the difference here is that when we think of tactile learning, we're not necessarily just thinking about the student’s eventually moving on to learning to read and write in braille. We're thinking about encouraging the use of and the growth of the tactile Learning Channel as a viable means of gathering information and learning about the world. And so, when I share with you, and I understand that you've been watching the, I'm sorry I couldn't join you earlier, but you've been watching some of our Braille Bites clips. And so, if, Daphne and Riane, if I start playing one that you've already seen, please just let me know. Or maybe we'll play it again, in case we've got folks who are new. But this distinction between thinking of skills as pre-braille skills, versus skills that promote tactile learning for all blind and partially sighted students, was a key piece in the creation of our Braille Bites series.

So just a few more points on the advantages of tactile learning skills. These are from a wonderful book, I promise APH press didn't put me up to this, this is just, I happened to have them in my office. This is from Tactile Strategies for Children Who Have Visual Impairments and Multiple Disabilities, by Deborah Chen and June E. Downing. So, one of the advantages of tactile learning skills is that it addresses and leverages an important sensory channel for all learners. Something we've already been covering and talking about, touch as a viable and trustworthy means of gathering information about the world. For some of our students, perhaps those with more complex profiles, touch is a key component to being able to anticipate familiar events and activities, particularly if the student is using a tangible object calendar or cueing system. One thing we also know about touch is that it focuses and directs attention to an activity like nothing else. As a teacher of students with visual impairments, I would often try to incorporate hands on and tactile elements to my instruction, even with my students with low vision, because touch so immediately would focus our attention on the task at hand. This is especially useful for students who might have challenges with attention, directing their attention or executive functioning. As we know, touch is very tangible, and really helps to focus and direct attention. Tactile learning provides clear intent for social engagement. And so we want to talk about shared attention. Well, shared attention on a tangible object is very immediate and direct, as opposed to shared attention through another distance modality, which may not be as obvious to the learner. And again, for our students with more complex profiles, tactile learning skills may be an important support for expressive and receptive communication, especially for our students who are deafblind. These are all benefits I've been mentioning, or potential advantages for the learner. But really, when we think of a potential advantage for all learners, sorry for all who are working with that student,

**Adam Wilton**

the encouragement of tactile learning promotes thoughtful and organized interaction with the learner. And so if we're thinking of hands on, really engaging that students tactile modality, in my experience, and I know in that of others, it really forces us as education professionals and members of that student's educational team to be very purposeful and systematic and direct in our instruction, because it's tied to tangible objects, or surfaces, or materials.

So what is the connection between all of this and our Braille Bites project? Well, so Braille Bites was a project that began a few years ago as a partnership between Braille Literacy Canada and the Provincial Resource Center for the Visually Impaired. And I will admit, full disclosure, this started as a pre-braille project. We were thinking about, hence the name Braille Bites. We were thinking about getting ready for school for our students who may be learning to gather information and to read and write non-visually. However across time, we realized that the things that we were sharing, and what we were coming up with and the scripts that we were writing and developing, were not just important for our students who were on that quote unquote pre-braille track. They were really important for all of our students, regardless of whether they were eventually going to read braille, print, or a combination thereof. We decided on a cooking show format, because we felt that was most accessible and most engaging. And frankly, it was just fun that way. And also when we're talking about recipes, recipes are a great succinct way to be able to share information. Pictured on the slide we've got a pair of hands, they happen to be our dear colleague and friend Jen Jesso’s hands, in a tactile sorting activity, using a six cup muffin tin. And in each of the tins, you've got different materials like wooden beads, Cheerios, and elastics. My next slide. So as I mentioned, our picture on the slide is our team. We've got myself and our BLC President Daphne, another one of our dear colleagues and friends and board members Marilyn Rushton, and my colleague and fellow BLC board member Jen Jesso. And together we worked from the premise of as teachers of students with visual impairments, what knowledge skills and experiences would we love to see among our students, for them coming into K to 12? And as I mentioned, we started from a pre-braille premise, but quickly expanded that to all of our students, recognizing that what we were sharing was absolutely essential for some, but incredibly beneficial for all. And I should mention, just as I move on from this slide, we're all wearing our Braille Bites aprons. It’s a white apron with our Braille Bites logo on the front of it.

So, in season one we focused on really fundamental skills for tactile learning. Fine motor tasks like stringing beads, kneading and stamping playdough, distinguishing objects based on weight and shape and texture, distinguishing on one or more attributes. On tracking stories, so being able to follow raised lines with fingertips with hands working in unison, and sorting based on texture alone. Recognizing that that is a discrimination that is absolutely unique to the sense of touch, being able to distinguish textures. And so, this was something that we emphasized in several of our season one videos. Pictured on the slide, we've got Daphne's hands this time, and she's taking us through a tactile sorting game in the format of a Go Fish activity.

In season two, we continued along this developmental trajectory and wanted to look at kind of what the next leveled up activity would be. This was a really fun season to film, because instead of doing longer YouTube videos, we ended up doing short videos, so that we could condense information in a shorter package to make it more convenient for families. Because one thing we heard after season one was not everybody's got time to sit down and watch a longer video, by longer I mean up to five minutes. So, in season two, we looked at things like Story boxes, experience books, adapting puzzle activities, and using tactile labels. So, we had an early literacy cluster. And again, in these videos, we're not necessarily presuming these as pre-braille skills, we're presuming these as tactile exploration skills that are useful for all learners. Pictured on the slide, we've got an owl, a simple wooden puzzle of an owl. And each of those puzzle pieces has a textured square of material that corresponds to a similar material on the base of the puzzle. I'm just going to move a little bit quickly through these slides being conscious of time.

Also in season two, oh, Riane have we watched Daphne's fabulous experience book video yet?

**Riane Lapaire**

Yes, we have.

**Adam Wilton**

Okay. Yeah. All right. Well, then, we're going to move through that one. And just again, in the interest of time, now Riane and Kim, Have we watched Marilyn’s fabulous tabletop video?

**Riane Lapaire**

Yes. Oh, I'm sorry. I picked all the good ones.

**Adam Wilton**

That’s okay, they're all good. I’m a little bit biased, but

Riane Lapaire

We can blame Daphne. She told me to move on to Season Two and I was stuck in season one.

**Adam Wilton**

Hmm. Okay, well, maybe, have we done the buttoning and unbuttoning?

Riane Lapaire

No,

**Natalie Martiniello**

but if you want to show any one Adam, it's fine. Because those were during the break. So people may not have seen them.

**Adam Wilton**

Okay, well, I'm quite partial to Marilyn's tabletop activity, because I think it's an incredible example of generational learning and imparting Independent Living skill knowledge. So I want to keep that one in. But sorry Daphne, is it okay if we take a raincheck on Experience Books?

**Daphne Hitchcock**

Absolutely. Go on, yeah.

**Adam Wilton**

It's a great video though, And definitely one of my favorites, which is why, oh there's Daphne right there. Okay, we'll just move on to the next one. So also, in season two, we looked at strategy and skill development. So these were not necessarily tied to a specific game or activity, but were still important skills that we can turn into games and activities. So we have a great little video on tactile strategies related to buttons and zippers, scissors and craft skills, and opening and closing containers and lids. All things that connect back to those pre-braille skills. But if we think of this, these are actually broader tactile learning skills and tactile exploration skills that are valuable for all of our students.

Okay, and then half of our team are orientation and mobility specialists. So a little shout out to my O&M people who are with us today. We wanted to make sure that was represented in our season as well. And so we had videos related to an O&M scavenger hunt, that recipe that we created was specifically framing the importance of tactile markers for use by students with low vision, who would use large print. So that video, I like to think is a nice example of tactile strategies in use outside of the non-visual context. And early tactile maps, and early tactile markers. Pictured on the slide, we've got my hands this time, pointing out different elements of a simple tactile map of a bedroom.

Okay, as I mentioned before, this is our friend and colleague Marilyn, talking about the strategies that she uses for locating objects on a tabletop. And the reason I wanted to share this is actually threefold. One it’s just a really fun video. Two, I think it represents a really nice framing of a lived experience and passing on that lived experience to others. And then third, I think it represents a tactile strategy that all of our students could use in terms of being able to, you know, effectively and gracefully locate items on the tabletop. So I'm just going to play Marilyn’s video here. And hopefully, some of you who may not have seen this yet, this is new for you. So here we go.

**Marilyn Rushton**

Let me show you how I locate items when I'm enjoying a meal or a snack. When I explore the table, I start with my hand flat and spread my fingers so that each fingertip and the palm of my hand is in contact with the surface. I am right handed. So with my right hand at the edge closest to my body, I have several choices of which way to go next, moving my hand to the right, I pay close attention to what I feel with my pinky finger. Moving to the left, I focus on what I find with my thumb. Notice how I don't move my hand all over the place, I move it in a straight line from left to right or right to left. When I reach the edge of the table, I move one hand length away from my body. And then I start again. When I gently contact something, say with my pinky finger, I move my finger up the object and explore its shape and temperature. If this feels like what I'm looking for, in this case, a cup, I can pick it up if I wish. When I put the cup down, I make sure that my pinky finger is out as a guide so that I can gauge the distance between the cup and the table. And to ensure that I'm not placing it too close to the edge. It's important to keep my hands low and moving softly so that I can find what I'm looking for independently and gracefully. For more on table strategies, see our recipe card.

**Adam Wilton**

Alright, I just love that. So what does this look like in a context where a student might not be using braille, where a student might be a print user? Well, something that I've used with great success with some of my students with low vision is adding those tactile elements into activities, particularly those that involve spatial relationships or spatial cognition. Because as I mentioned on a previous slide, we can leverage that kinesthetic sense, sorry, that proprioceptive sense. When we've got students’ hands engaged, and they're having to gauge spatial relationships, distance from one point to another, etc.

And so pictured on the slide here is a photo that appears on the Paths to Literacy website. And it's a print line graph. So we've got print numbers on the X and Y axes, but we've got a Wicky Stick or raised wax string, that is on the trendline. And so Here students can engage not only their vision, but also their hands, to be able to follow this line and engage with this content. So I just wanted to provide kind of a more concrete example of what it might mean to meaningfully incorporate tactile learning into some of our activities in our materials across students who are accessing non-visual means, visual means, or a combination of both.

I want to also highlight a really amazing resource. This is from the Texas School for the Blind and Visually Impaired. This is the Early Tactile Learning Profile. And so I'm actually just going to, if I can, drop the link to this in the chat, so that you have it.

**Kim Kilpatrick**

Can I give you a one minute warning?

**Adam Wilton**

Thank you. I'm glad you did. So, the early tactile learning profile is a series of checklists that parents or professionals can use to kind of gauge where a student’s at in terms of their tactile channel being a viable means of learning, and gathering information and interacting with the world. So it works from a basic principle that everyone who's learning with their hands is going to be a reader and writer in some form. What that might mean may look different, will look different learner to learner. That students function along a fluid continuum of motor, tactile, conceptual, and socioemotional skills. And that, I think really importantly, these are not disconnected skills. They're sequential, contingent and interdependent. So going back to that quote from Dr. Pharrell’s book around being able to use multiple senses together, not only to confirm, but also to enrich sensory inputs. And the Early Tactile Learning Profile assumes or evaluates three things, the three E's they call it. Experiences, evaluation, and early instruction. So what level of experience has the student had? What do we know about the students tactile strategies and the tactile exploration skills that they have, and then, as a result, what early instruction or early intervention can we provide?

Pictured on the slide is a screenshot of the cover of this resource, which shows two overlapping cartoon hands and a heart. And again, this is freely available from the Texas School for the Blind. So what I want to leave you with here, I use the term call to action in my introduction, and in the blurb for this presentation. So I thought I would use it here. And really what we're talking about here is ensuring that proximal or close viewing by learners with low vision should be one of several possible strategies for exploration, not the strategy, and not the only option for them. And so this is why when we think about the Expanded Core Curriculum, we don't refer to it as visual efficiency anymore, we refer to it as sensory efficiency. So my encouragement here, and hopefully this is encouragement that comes through our Braille Bites resource as well, that teaching tactile exploration skills is part of a complete low vision toolkit. We're not just talking about magnifiers and CCTV’s, and enlarged print. But tactile exploration skills are a key component of a low vision toolkit. And that really what we're striving for here is full sensory efficiency for all learners, where all available sensory modalities are valued, are viable, and are reflected in their instructional programs and the great fun that we're able to have together. Pictured on the slide are two images from our Braille Bites series. One is again of Daphne with the Go Fish game, and one is from a tactile matching game with textured circles on a cookie sheet. So with that, I will leave it there and open it up for discussions, questions, and I'll also make sure that I dropped my email in the chat if you want to follow up on anything. Thank you so much for having me, everyone.