Live captioning by Ai-Media

SPEAKER:
We had tremendous support on this project from Bryn Powell one of our advanced doctoral students. We are excited to share some of our research and some of the information we know about getting ready to be leaders -- readers pre-literacy. Both ran our faculty members in the Deaf and Hard of Hearing education program at Columbia University.

Here are disclosures. We will be talking about one of the tools that we have helped codevelop today. But we don't receive any royalties or compensation from its sale. I'm Hard of Hearing and use hearing aids.

Here is what we are planning to cover this afternoon. We will be talking about theories and research about what sometimes is called the science of reading and we will get into what that means and how that applies to the EDHI period. We will be talking about what we call states zero and learning to read which is the pre-reading period. We will be learning about tools you can use to track and target those prereading skills that we will cover. And then wrote all of this, as Deaf educators we can't help but infuse all information we knew about reading development for children who are Deaf or Hard of Hearing for stop so we will be specifically talking about these stages which cover pre-reading development. For all children but we will be talking about the special considerations and tools and things that we need to think about is professionals and parents and other people who work in the field. When thinking about for infants and toddlers and young children. Who are Deaf or Hard of Hearing.

SPEAKER:
Thank you Elaine. My good colleague here at teachers College. Today, I will be talking a lot about the foundations of reading in typically hearing children and what we know about that development can be applied to our students for Deaf or hard of hearing.

Everything we talk about today, is something you can learn more about these two websites. One is Reading Rockets. The Other One Is Colorin Colorado which is the Spanish version of these websites. They are federally funded literacy initiatives and offer good information and resources for anyone who works with young readers. You may be a parent or caregiver or early interventionist or SLP, you might be a teacher anyone of us who work with children who are young and preparing to become readers. Would benefit from taking a look at these sites and the resources they use.

We like the sites because they are research-based and there's evidence to show that the skills and strategies they present are valid.

They are not about Deaf and Hard of Hearing children specifically, but they are grounded in the same

science and the idea that Deaf and Hard of Hearing children need to learn the same things about reading. That typically hearing children do.

We can go to the next slide. Let us just start altogether thinking about what we know as parents or as teachers or as caregivers, as early interventionists were SLPs, what do we know about typical reading development? Why is it important and then what does that mean for the children that we work with?

To help us start thinking about what we know, let us take a look at the first question. OK? Often, in early reading programs, there will be a section on reading nonsense words. Words like flep, tridding, pertolic which are not words… But why is it useful to know if a student can read those words. Why would a teacher or an interventionist want to know that a young reader could read those words?

Right? And then number two, what does it mean if a five-year-old child rights (unknown term).

(On slide)

SPEAKER:
You can see how those are written on the slide and then the translation, please take me with you. In the parentheses.

You might be thinking that what these two instances help us know, is that the child who can read nonsense words and the child who can write a sentence like that our children who are aware of the phoneme system in English.

So,…

SPEAKER:
Can I interrupt you for one moment. I just want to let everyone know that the closed captioning option is now available on your screen. You just need to click the CC, show captions button at the bottom of your screen to enable them. Sorry to interrupt you.

SPEAKER:
That is OK. Alright. So a skilled reader, as I was saying, can easily pronounce those words even though they are not words and still have cognitive room to make meaning from what they are reading.

A less skilled reader has a harder time sounding out those words. A student who can write please take me with you, you showing that they are at the early phonetic or sound spelling stage. Both of these students show a fairly well-developed awareness of speech sounds.

Maybe not so much of standard spelling yet, but that will come with instruction. So, big part of early reading is knowing about letters and sounds and then knowing how those letters and sounds, sound, like speech.

When we read. And then finally, which words to good readers skip as they read along at a good pace? This is a fluency question. And I would've answered it incorrectly in the beginning of my work in reading. But now, I can say that science shows us that good readers skip almost no words.

Because at faster than lightning speed, our brains process every letter of almost every word as we read. So we can't skip words and get the same meaning that we would if we read them all. Now as I mentioned before, Deaf and Hard of Hearing readers need to learn the same things. That hearing readers learn.

They might need more time and they might need more support and they might need different scaffolds. But they need to learn the same things. And we will go into that here.

In our next number of slides. What I often tell the students that I work with is, the more you know about reading and how it develops, the more you are able to help the children that you work with.

So in order to develop our common understanding here, we are going to look at something called, "the simple view of reading." Developed by call -- Goff and ton Mark in 1986. And revised a little bit more a few years later.

By Hoover and Gough. According to the simple view of reading, people need two things. In order to gain meaning from what they read.

They need to be able to decode and they need to know the language of the print that they are reading. So if we are reading English, we need to know the English language. Now, at the time in the 1980s, the whole language movement was very popular. And some scientists wanted to remind those of us who teach reading, that the role of decoding is really important. That whole word reading is typically not how the brain learns to read. That we need to be able to decode or sound out words.

And they proposed this simple view of reading as a mathematical formula with three variables. Right? If we know two of the variables, if we know how well a child can decode, and know that they have the language of the print that they are reading, they can attain reading comprehension.

OK? If they have decoding skills, that maybe they don't know a lot of the language, that they are reading, their reading comprehension will suffer.

So you see that middle line word recognition decoding, but not much language, does not result in reading comprehension.

And then, the final line, if you don't know how to decode, even if you do know language, it still will not result in reading comprehension because reading is about taking the symbols on the page, and turning them into speech or language. So to help us understand this formula even more, that is look at some simple children's text.

I will demonstrate how I am that first line on the simple view of reading for so I have word recognition and have language comprehension, so I can understand what I read.

I'm sure it will be the same for you here. (Reads) In March the wind blows down the door and spills my soup upon the floor. It laps it up and roars for more. Blowing once, blowing twice, blowing chicken soup with rice.

So because I can decode and because I know the language of print, can read fluidly at a good pace, I can impose intonation and prosody into what I'm reading and therefore I have reading comprehension. Let's look at the second line of the mathematical formula. So this pages written in German and I do not know German.

But because it is a phonetic language, I can sort of decode and say the words… (Reads) (In German) I will stop there. I can pronounce those words but because I don't know German, I don't have language comprehension in that language, so this results in my not having reading comprehension for this page.

OK? So I can pronounce and decode but I don't have language comprehension. So I don't understand. And then the third scenario, I have neither decoding skills, or language comprehension. This is Russian, and Russian has a different alphabetic system and clearly it's a different language. I can neither pronounce these words, or understand what they say.

So I do not have any reading comprehension of this selection. So, when we think about our Deaf students, we think about how many sounds they can hear and how they can use those sounds to make connections to print. And we know that often our students are not hearing all the sounds, so we know immediately that decoding will be something they need more support with.

We also know that because Deaf and Hard of Hearing children may hear less sound, even through their devices, they may have less access to what fluent language sounds like.

So they may have less language comprehension or less of an understanding of the language they are

expected to read. So reading comprehension suffers.

That is a quick overview of the simple view of reading. And now, let us go back and look at what this means in terms of brain functioning. So, you probably remember from your college courses or maybe just from your wide reading, that language is innate.

That human beings, are born to be social. And learning to communicate with each other, is something that humans seem predisposed for. There are actually parts of the brain, that we know, are the language areas. And we know, this because when someone has a stroke, these areas of the brain, no longer function. The way they did before.

So we know there are specific areas devoted to language production and language understanding. But there are no areas of the brain that are devoted to reading. On its own.

Reading is a new ability in the human history. It's fairly recent. So our brains have not yet had time to specify genes or areas that are connected to reading.

So to successfully read and write, the brain has to take other parts that were maybe designed for something else, and make connections so those brains can learn to read. We will take a look now at her next slide.

And we can see that those little green areas at the back of the brain become involved with the speech areas during reading. So the language areas are those yellow areas and then to become a reader, the brain has to engage some of the visual areas.

We have to look at the print in the print, has to activate the language areas of the brain. Those yellow areas. Now many children learn to read by themselves, they learn to read through rich experiences with books, and with caregivers who read to them.

Many readers learn to infer the rules of reading. But, most children don't. Most children require structured literacy teaching. We will talk more about that later but just so you have an idea of what's going on in the brain. To elaborate a little further, we will take a look at this brain over a period of time that is showing what happens in the brain when someone speaks.

This, we have this information through neuroscience and neuroimaging. We can see the parts of the brain that are activated when someone speaks. So if you look on the left at 55 ms, when someone speaks, activity starts in that small spot that's roughly in the middle of the left side of the brain.

But then in less than a second at 170 ms and 250 ms, that activation spreads downward and forward

until a big chunk of the left side is activated. Or lights up.

So the part of the brain that is lit up here, is the part of the brain that deals with speech. Notice that the back of the brain, is dark. It isn't activated at all. So the back part of the brain, is not involved. In speech.

Let us see on the next slide what it is involved in. OK, so this time, we are looking at the brain of someone who is reading a word. OK? I 55 ms, where does activity begin? Not in the middle as we saw in the last slide, of someone who is speaking, but in the back of the brain. Which is the visual area. So, even though that little red spot seems far away from your eyes, that is where visual signals are sent.

And if this were the brain of someone who could not read, that signal would stop right there. Because the person would not recognize letters as something that is related to language.

But, this is the brain of a reader. So the signal does not and in the back of the brain. What happens to it? We can go to the next slide. So instead of stopping we see activity spreading from the back of the brain, along the bottom surface, and into the whole middle area. Which is the area that is responsible for speech.

So what we are seeing here, is the written word triggering speech. And this happens whether you actually read out loud, or not. The same circuit is involved in articulating a word, or just recognizing it. Once you have become a reader.

Ken Pugh says in reading, the visual area of the brain integrates with the speech area. So between these two zones, the visual zone at the back of the brain, and the spoken language zone in the middle of the brain, become connected.

So in a sense, if you learn to read you have built that area of your brain. And we are going to call that visual area, the brain's letterbox.

You saw the little GIF of how that activation moves forward in the brain of a reader. OK, so, these are things that happen in the brain as this homemade part of the brain that's really flexible once it's built, right? You can read different types of font, you can read different sized letters, you can read sentences that are all connected together, you can read sentences where capitals and lower case letters, are mixed up.

Right? Your brain can handle all those print variations automatically. But, you still have to learn what the word says. So if you look at the second column on the slide, you have to learn that the first letter up at the top, is called P. And that P, usually makes the sound, the first sound in the word Pen Puh... It

doesn't matter what the P looks like it could be a p or a script peak, or a P that is filled in. It still says P as in Pen. That part you had to learn.

There are lots of other things that kids need to learn as well when learning to become readers of English. That is on the next slide. English is a morphophonemic language. Meaning words are made up of letters with individual sounds, phonemes, and words are made of groups of letters that change sound depending on their grouping.

So all of this is what children need to learn. In English when you see a word beginning with P, it could represent the P sound. But it could also represent, the F sound. As in "photo". Or, it could represent – it could be silent as in "pterodactyl".

I will give the interpreter a minute to get through that. Alright? In Spanish, the symbol P always stands for the P sound. Words like pastel, meaning cake, or words like poor...por... Meaning four. P always makes the P sound. But not in English, in English we have words that mean the PH like alphabet. And dolphin. And nephew. And why do we have those words? In English, lots of words are borrowed from other languages.

And the pH sound is borrowed from the Greek. So kids have to learn that P doesn't always make the P sound. Look at the letter E? In the middle column. There are at least six possibilities for how to sound out E.

I can sound like end, or eat long E as in eat. It can sound like I as in your eyeball. It can sound like early. And it can sound like A as in eight.

English readers have to learn a lot not only about individual sounds but about specific patterns of sounds. OK? We have words like health… Sorry, words like health which has four sounds in it. Looks like it should be pronounced heelth but it's health because of the root word heal. Interesting. So all of this has to be learned.

Maybe you have seen this Nancy Young graphic. She notes that very few children up there in the green section, learn to read seemingly without effort.

But all of those other children, need instruction. And a good rule of thumb is the more challenges a child has, the more structured their instruction needs to become.

I will do this last two slides and then Elaine will take over. In the early 2000's, the work of the national reading panel, helped us know that there were five important areas for reading instruction. These were five areas that most children, need direct instruction of them.

In terms of the EDHI period, phonological awareness develops for years before children are expected to look at print on a page. So we know that typically hearing children listen to language for years before they go to school. And then start looking at the relationship between letters and phonemes.

And phonics instruction. Reading fluency, being able to read accurately and quickly, depends on your knowledge of phonological awareness in your decoding ability. And then of course the more words you know, and the more you know about how to pronounce those words, the easier comprehension will be.

So, even though you may work with children during the EDHI period, those children are starting to learn to read. Even before any of us know it. By developing these skills. Another way to think about this is through Scarborough's reading route.

Scarborough developed this rope or this metaphor of the rope in order to show how all of language comprehension is basically intertwined with kids word recognition skills.

So all that language comprehension that goes on in the years before children enter formal schooling, is then used later on to make words recognition easier.

So strong relationship between those two, the language comprehension and the word recognition. As we noted in the simple view also.

And now I will hand it over to Alain.

SPEAKER:
Alright so we want to give you a really in-depth overview of the theories of reading development. Not because as Maria mentioned we think most of you are working with children who are in the learning to read stage, but because we want to set the stage for what children need to do once they get into school. As we hope we have shown you, the process of learning to read is very complex. Even despite the name, simple view of you reading, you have a lot of ski great -- skills in language, branch and and in decoding abilities before you can wrap that up into reading comprehension.

For those of us who work with children who are infants and toddlers there are a lot of things that we can do with them and skills we should be looking out for that we call pre-reading. We base our work on Jean Chall's skills of development she created in the 80s. These skills don't have ages attached to them but the theory shows that reading skills build upon each other through stages that children need to pass through.

The first one is pre-reading both of these are the skills children attain before they enter school. All the language comprehension, the phonological awareness skills Maria was talking about. We will talk more in depth about that but what's important to know about this graphic and about the stages is that stage is don't end. There's not a discrete end.

The pre-reading stage which begins in infancy continues on with skills the children attain then continue on as they start to read and get more fluent and start reading to learn if you've heard that phrase. All the way up to stage V when they are very adept advanced college level readers.

What we want to focus on for the rest of the presentation is these pre-reading stages. This is where we will find most of our children in what we call the eight
EDHI in birth through five. Their drink medication through work with toys, they are developing language skills in getting language comprehension pieces that they need later to map onto print. (missed content due to speaker's speed) they are becoming aware of the phoneme system of the language they are going to be learning to read. As Maria mentioned when we think better children who are Deaf or Hard of Hearing particularly those learning to listen and talk with hearing technology there are a lot of things we need to be aware of in terms of challenges children might have with specific phonemes in terms of making sure all the phonemes are accessible to that child. Not just for comedic Asian purposes but because it setting the stage for their phonological awareness and decoding skills later on wuzzup children are also getting more familiar with books even though they are not reading it on the page. There getting single (missed content due to speaker's speed) looking at the front of a book opening turning pages getting experience using…

They may start to suitor read or pretend read. Open a book and read it to a stuffed animal. Not decoding words on the page that gaining understanding that when you open a book, the text has meaning. Where in a skilled reader turns from lines on a page to language.

By age 4 and five after this work of early childhood and play, some children can point to different words or pictures when asked, recite the alphabet, recognize written letters, write their own name, but most importantly, gentle and test my children can understand thousands of words they can hear in Sepal topic and read very few of them.

They've done all the work of language, retention before entering formal schooling and are expected to take words on page and connect them with that language. (missed content due to speaker's speed)

What do we do with children during this period in stage 0? The good news is a lot of the work parents and professionals whether it be teachers of the Deaf, early interventionists, SLPs etc.'s are doing. His pre-reading work. This is our biggest message to you is if you're not working with children who are in elementary school or doing formal reading instruction, most of the good strategies that we are doing

with children to help them access language, are working on reading. We are developing readers when those children are one month old or three years old or phone half years old. Her my goal of this wor we do playing on the floor seasons reading, playing with toys, having expenses… The child now tilt into the background knowledge are building a reader.

Stage 0, there's very little we are doing to call specific attention to print but we are interacting linguistically. That's building language and background knowledge. The baby games we play, peekaboo, hide and seek, playing and doing different nursery rhymes all of those build fluency and build turn-taking skills, and language skills.

We love to sing songs on one of our favorite recording artist is Ella Jenkins. If you hadn't checked her out we encourage you to. She has great songs like who fed the chickens which we don't have time to play but you can seek out. What's wonderful about her folksongs is that they are call and response. What happens there is she or an adult sings a line in children repeated.

What are we doing there that has to do with reading? We're building fluency. When a child has to repeat saying something with the same intonation and prosody and speed as an adult, your building oral fluency. Your learn to put the sounds together in a way that sounds like words and language and then later on, you're going to be able to take the words on the page about them together as Maria said, accurately, quickly and with expression in a way that those in Glenwood. So that oral fluency you build from singing songs, learning poems engaging in chance, helps to build reading fluency later in that reading fluency will be very key for building comprehension. (missed content due to speaker's speed)

SPEAKER:
I just wanted to point out, I forgot to say this before, that anything that is underlined in the slides, is a link to something that will explain it further or be the example. So when you download the PDF of the slides, the links should work for you.

SPEAKER:
I'm not sure if the slides are available widely but we have our contact info at the end and we are happy to share. The PDF of the slides thank you. As Maria probably alluded to and as you can see we could go on for days about this topic but we don't have time in a one-hour webinar but we want to share all the resources so thank you Maria.

A lot of these activities using wordless picture books to make up your own story telling with puppets and taking on the roles of different characters, singing songs that involve different words or rhymes or sounds, all of those things are great language activities and I think many of us are doing. But there's a new way of thinking about it when we decide these things are actually working on reading as well. We are building readers by singing songs, by engaging in poetry, by doing storytelling with puppets. In

addition to all the other wonderful cognitive and linguistic things we are working on.

So, we know this theoretically and we think that a lot of this information can be applied to children who are Deaf or Hard of Hearing but we don't have a lot of recent research to show us how children who are Deaf or Hard of Hearing are learning to read right now. The science of reading is a really hot topic in the general education world and you probably have seen a lot of press about controversies around the term and what people are doing in the general education setting, but in our field, we think you can apply these evidence-based principles to reading instruction for Deaf and Hard of Hearing kids but we don't have a lot of knowledge about what kids are doing now. We have some research from the past that has shown that children with – who are Deaf of

Or Hard of Hearing (missed content due to speaker's speed) we know in the fields that many children are surpassing that and we think many of the successes that children having are due to the simple view of you reading if you think about children's access to sounder technology, they may have better access to the phoneme system which then leads to better word recognition. We also see children through the work of (unknown name) and others being identified as death Hard of Hearing at birth or early and having access to technology and intervention... Leads to better (indiscernible) outcomes. If you have stronger language outcomes that should lead to better reading. (missed content due to speaker's speed)

What some of our work here at teachers College has been to investigate just that to see what children are doing now with very good early intervention and good use of technology. For those whose families are choosing to learn listening and spoken language.

We will tell you just a little bit about our read up study and I will get up to a couple tools you can use. Our study looked at 150 or so children pre-k through fifth grade we followed them for four years. We looked at different areas of reading development. Spelling, reading comprehension, fluency etc.

When we started the study before COVID, we found that they had on average scores within the average range and all those subtests. Which means contrary to what we saw historically, these children who had strong early intervention and auditory based learning in their classrooms, were performing in the average range. They had strong decoding skills and language comprehension.

One thing we found that was interesting was many of these children, they had a challenge, it was in reading fluency.

Reading accurately, quickly and with expression, is really important as a bridge to decoding those sounds to get to comprehension. If you decode quickly and accurately and make sounds into words and sentences, that sound like language that has meaning, that aids your comprehension.

This reading fluency piece is key and is something we are looking at further.

We also looked at children in the earlier period we think about the EDHI period. We looked at cohorts of children from pre-k before COVID and those after when we returned after COVID started. We were hoping we wouldn't find a big difference in the performance of those children but we knew there had been interruptions in their schooling and intervention, we don't need to tell you what that looked like during COVID. But fortunately we did not find any learning loss within this cohort of children. So now we are investigating further to see what kind of instruction was happening even if it was remote or in the home. We think the strong focus that her field has on coaching parents and on families that are (indiscernible) intervention helped these kids continue to make pre-reading and reading progress even if they were not attending school each day.

I will skip ahead to show you this and we will pause for some questions. Our work with sunshine cottage school for Deaf children started with research. We wanted to document what children were achieving now in the new landscape of Deaf and Hard of Hearing landscape. -- Education but that we wanted to work together to build something that would be useful to practitioners both those who worked at that school and more importantly the (indiscernible) teachers and SOPs and early interventionists who often work on their own with children in neighborhoods and districts across the country.

Most importantly we wanted to provide something useful to parents. They approached us about codeveloping what we called the reading castles. This is based upon her -- sunshine cottages other tool which is the cottage acquisition scales. For listening language and speech.

Sorry I went to fast… This was inspired by the cottage acquisition skills for listening, language and speech. Which we call the castles. So the reading castles is inspired by that tool which tracks language and listening. This tool is designed to be able to track reading progress in prereading progress from birth through third grade. And what we wanted to be able to do here was not to do anything revolutionary in terms of thing about those prereading skills, we already know what they are through many years of research and all the theories we shared, but what we wanted to be able to do was provide a tool that would track each of these behaviors in a way that was clear for practitioners and then more importantly for parents this is something we have been seeing people of used in the field and hope it continues to be used to show parents that all the work they are doing when they play and read with their child, they are out and about and trying to experience the world… Infusing language through their everyday activities… Is working on language and literacy. Those children are learning to read even the small children and 0 to 12 month period.

Reading castles provides a way to track reading progress across all these different domains on the top

from birth in the early literacy period, all the way up through those concrete skills that children need to learn in kindergarten through third grade.

We have a couple videos you can use to look at what some of these behaviors look like. But I think in the interest of time, it would be best to just skip ahead to our contact information. And give you a chance to ask questions. We covered a lot of material here, we have a lot more we would be happy to talk about at a different time. But we hope we've left you with a solid foundation in what reading looks like. For typically developing children. Some of the challenges that our Deaf and Hard of Hearing children might have in some of the tools and things to think about when working with children who aren't even reading it but are learning. Thank you.

SPEAKER:
This is will from NCHAM and I will invite you to use the Q & A field and now to ask some questions we have a few already. I want to just let you all know that when we are done with today's presentation, you will have an opportunity to give us a little feedback and also to generate a certificate of attendance for today.

Before you sign off be sure to get that link that will appear at the top of the hour in the chat box. Our first question: is this about children – what about children without access to sound?

SPEAKER:
Elaine I can start and then you can jump in. If you would like. Great I'm just reading ahead in the questions and noting their number of questions that deal with children who are signing and who may be do not have as much access to sound.

So what we are projecting here in this slide deck and through the research, we have looked at, and the research we have done ourselves, the idea that English is the language that is sound based. It is important.

So, we believe and we have witnessed, Deaf children who use their technology who can become familiar with the phoneme system through the use of their technology and possibly through the use of other visual means like cued speech and visual phonics.

So we are saying that if you can't hear the language, you are expected to read, learning to read it will be harder. And it might take more time to develop those skills.

But they can be developed auditorily and or visually through representations of the phoneme system like cued speech, or visual phonics.

SPEAKER:
Absolutely and I think, something to note, just as Maria showed the model of the percentage of children who will learn to read just by incidental learning and then those who need additional instruction, there is always exceptions to the rule. So we all know, Deaf children who have no access to sound who learn to read beautifully and seemingly very effortlessly. A lot of that is due to really strong language foundations. But what we know from the research in general education and then also in our population is that learning to read will be much easier if you have some access to the phoneme system as Maria said either editorially or visually or both.

SPEAKER:
The next question, this is we'll again, is the reading castles specifically for administration to Deaf and Hard of Hearing populations?

SPEAKER:
Yes it was developed with population in mind but it documents the skills all readers specifically those who are using listening and spoken language, can be hearing readers or Deaf readers, need to learn in order to progress through the stages. This is based on general reading research and so it can be used with children who are Deaf or Hard of Hearing or other children who are receiving early intervention. It can be used with typically developing children to track their progress.

So we created it with Deaf and Hard of Hearing children in mind, the manual is written with them in mind because that's our population, but there's nothing about it that would preclude you from using it with other children. We just thing for our population, it's important to keep in mind all the language pieces and you can use the castles for that or many of the other tools available. But also, to specifically track reading and writing development even before reading and writing starts to happen in school.

SPEAKER:
We have a few minutes left. This next comment includes a question and a comment for you to respond to and it starts with the thank you for your work. The comment reads, the view that Deaf and Hard of Hearing children need to learn the exact same processes that hearing children use, may be misguided and doesn't help us move beyond the current issues of lack of facility of reading and many Deaf and Hard of Hearing children. The standard comparisons group of hearing monolingual's as the gold standard controls for reading, may be wrong. Maybe – many fluent readers of English don't know these same skills. Past models of hearing readers don't take into account factors that increase perceptual span observed in Deaf populations and differences in skipping rates. Perhaps it's time to move beyond the standard psycholinguistics models of reading, that have been used for decades.

Any thoughts about that comment?

SPEAKER:
I think that comment is quite complex. And difficult to answer in the remaining minute that we have. I think something that is important to emphasize is what Elaine mentioned before, the idea that any language will support your learning to read.

But, we feel that there are many things that hearing children need to learn. That Deaf children can also learn. And we feel that the differences in what hearing children learn and Deaf children learn, are going to be more about time instruction and the specific focus or the specific scaffolds.

That we need to provide for our Deaf and Hard of Hearing children. What Deaf and Hard of Hearing children are reading is English. So becoming familiar with English, will help those children become better readers.

SPEAKER:
Several people are asking about access to the tools you have been discussing today. The reading castles for 3 to 5 and K through three. How can they obtain those tools?

SPEAKER:
Those are available through sunshine cottage school for Deaf children. I think it's on Chi -- have a paper version as well as E castles for online version. We don't receive compensation from the sale, we are trying to get the word out. I don't know about the exact cost someone was asking. But it's not expensive. And is available on their website.

SPEAKER:
We are at the top of the hour unfortunately already. You will see the emails for our presenters on your screen so if you have any follow-up questions, I'm sure they would welcome hearing from you to continue beyond today's presentation. In the chat field, you'll notice I think it's there, that there is no a link posted for you to be able – is it there?

SPEAKER:
Yes I posted it.

SPEAKER:
You will see a certificate generator there and a short evaluation survey for today's webinar. It will generate a certificate of attendance if you need that and of course, we always welcome your feedback on your presentations.

To our presenters today, thank you so much for all the time and effort it took to prepare and present

today's webinar, thank you to our captioner and to our interpreters, to our background tech support and of course to all of you. Who have been present today to think about this really important issue of literacy as a part of the goal that EDHI has at its core. And that is to develop language abilities in children who are Deaf or hard of hearing.

So, thank you everybody and we wish you happy holidays.

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