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Applying a Multi-Level Coding System to Children's Personal Narratives

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- [Amy] And at this time, it is a pleasure to introduce our guest editor for day three of our virtual conference, Dr. Trisha Self. She is an Associate Professor and Chair in the Communication Sciences And Disorders Department at Wichita State University. She's a board certified Child Language Specialist, and Coordinator of the Autism Interdisciplinary Diagnostic and Treatment Team Lab at WSU. So Trisha, go ahead and turn on your mic and thank you for joining us today.

- [Trisha] Thank you, Amy. As Amy mentioned, this continuing education event is in partnership with the American Board Of Child Language and Language Disorders. Also known as ABCLLD. I'm on the board of ABCLLD. And just want to mention to today's attendees, that if you think you have advanced knowledge, skills, and leadership in child language and are interested in becoming a certified child language specialist, you will find resources at our website that describes the process. The web address is www.childlanguagespecialist.org. Those of us who are specialists have found many benefits to being certified as an expert in child language. One being that we're all dedicated to ensuring that children receive high quality services. So I invite you to become a specialist.

I'd like to thank all of you for joining us today. We are fortunate to have Dr. Marleen Westerveld with us, who will discuss applying a multilevel coding system to children's personal narratives. Now it's my pleasure to introduce our speaker. Dr. Marleen Westerveld is an Associate Professor in speech pathology in the School Of Allied Health Sciences at Griffith University, Australia. She has a solid track record and applied research in the areas of language and emergent literacy development in typically developing children, children with developmental language disorders and children with language disorders associated with biomedical conditions. Her work has resulted in more than 60 peer-reviewed research articles in high quality journals, five book chapters, and one coauthored book. She is currently the editor for language, speech, and hearing services in schools and chair of the Child Language Committee of

the International Association of Communication Sciences and Disorders. Welcome Dr. Westerveld. We're looking forward to your presentation today.

- [Marleen] Thank you, Trish and welcome everyone. I feel absolutely honored to be part of this symposium and to share some of our exciting initial research findings. I'm going to get quite confused. It's 2:00 AM here in Queensland, Australia, and I decided to stay up. So whether that was a good idea or not, we'll find out in the next hour or so. Anyway, I'm really, really happy to be here with you. So let me go to the next slide. So the learning outcomes for today are that's after this course, this hour, you should be able to explain the importance of eliciting personal narratives as part of the speech pathologist routine assessment of language performance in children and adolescents. Describe how to elicit personal narratives using the Global TALES protocol, and then describe how to analyze personal narratives on measures of global coherence, narrative elements in types of evaluation.

So let's go to the Global TALES project. And actually before I start, it is I'm so pleased to be part of this series, focusing on personal narratives. I regularly run professional development events here in Australia for Speech Pathology Australia. And it's really interesting 'cos when asked more than 90% of the speech pathologists who attend those workshops, think of fictional narratives when asked about the use of narratives in clinical practice. And I do not want to sort of trivialize the importance of course of fictional narratives, but I'd really like to see a stronger emphasis on personal narratives. So a week like this is absolutely invaluable for that. And you've got some great speakers by the way, I listened to Cal Westby. I did get up for that. And of course, we've got Alyssa McCabe speaking later this week as well amongst some other amazing presenters, anyway, without further ado. So let me tell you a little bit about the Global TALES project. So I'm currently the Chair of the Child Language Committee that is now called the International Association Of Communication, Sciences and Disorders also known as IALP. And our Child Language Committee has members from more than

10 different countries and we speak more than five different languages. So the study that I'm going to be talking about, we really wanted to investigate methods for eliciting and analyzing children's personal events, narratives. With the ultimate aim really of developing tools and approaches to support interventions for this important skill in children, with significant challenges in their learning, including those with learning disorders. So we wanted to come up with a protocol that would be useful for clinicians around the world, hence the Global. And we wanted to, I wonder what's happened to my beautiful symbol anyway, and we wanted to, and then the overall question that the study aim to address was really what's the degree of diversity in personal event narratives.

And we're focusing on ten-year-old children initially across an international sample with a range of cultures and languages. And for those of you who are members to ILP, you may realize that there are, I think at the moment, 52 different organizations that actually belong to this worldwide organization. So it's an excellent, an excellent opportunity to look across different countries, cultures, and languages. So today's presentation will focus on English speaking countries initially, but of course I'll come back to the implications for other cultures and languages later on. So at the moment we have, we aim to elicit personal narratives from about 20 children from our country, 10 boys and 10 girls.

And we've been able to collect data from, as it says here in New Zealand, Australia, Cyprus, Israel, Greece, Russia, the US, Taiwan and the UK, and we're planning collection for Ireland, Iceland, Croatia, Canada, Sweden, and South Africa. If you know of anyone who's interested in, you know, joining our bigger group, not the Child Language Committee, our bigger Global TALES group, then please ask them to get in touch with me. So of course, I want to talk a little bit about, you know, why personal narratives and what personal narratives are, but I'll spend only a little bit of time on this because I do realize that other presenters will probably focus on a very similar sort of

topics in the next few days. And Carol has done an excellent introduction of course, to personal narratives. So basically then descriptions of path events experienced by the speaker. And they're one of the most frequently used in earliest developing types of narration in children with typical language development. And what you may not be aware of is that the majority of conversations of children between the ages of 5 and 11, actually involve personal narratives. And, you know, they're really important for classroom participation. So even though, as I said, there's a lot of emphasis on fictional narratives, no doubt because of the links between fictional narratives and reading comprehension.

They use personal event narratives for journal writing, as we call it here in Australia, and we use personal narratives to share or for show and tell, and of course then children between themselves or students between themselves also share what they did on the weekend and why that was exciting and so on. So really importantly, then competence in personal narratives is critical for social, emotional wellbeing and identity development. So why is that? Well, sharing stories builds friendships and helps develop a sense of identity and community. And again, Carol did a wonderful job explaining this on Monday, but given their importance then for friendship families and that identity, there's a real need for useful, reliable, effective tasks for eliciting personal narratives to sort of help develop approaches that support personal narratives or personal narrative development in children with language disorder and other vulnerable groups.

And when I'm talking about vulnerable groups, we're doing some work at the moment with adolescents with anxiety, for example, and other mental health problems, we also have research underway in children with Down's syndrome, children with autism spectrum disorder. So even though, you know, we're currently focusing on kids with typical language development to really understand cultural variations and so on, we really would like to extend that moving forward. I'm of course not implying that there

hasn't been any work in this area. And I really do want to acknowledge the wonderful work done by Alyssa McCabe in particular in this area. So if we then look at briefly consider cultural influences, which of course we need to take into consideration when trying to develop a global protocol. We do know that personal narratives reflect the cultural style of their community and that the quality of reminiscing experiences during childhood are really related to the development of personal narratives. And I think most of you will be aware that in different cultures, there's different ways of sharing stories. And I really liked the fly, like a fly story that Carol told us on Monday. So we also know that there are differences in personal narrative structure between cultures. For example, some cultures may have more topic centered personal narratives, whereas other cultures may have topic associating narratives.

And also that the language itself may relate to the structure of the personal narrative, both at a local, like a microstructure level, as well as a global more macrostructure level of the personal narrative. So if we then go to ten-year-olds, why ten-year-olds? We as a committee when we decided A, on the topic and B, on where to start, we decided to start with ten-year-olds because it seemed a logical group of kids who are sort of in that transition of, they've learned to read, there'll be a reading for learning. They're sort of in that year three, four of schooling where narratives do still, personal narratives play a really important role in the curriculum.

And I haven't had a chance to sort of look at your achievement standards, but definitely in Australia they play a prominent role from right the moment kids start school until they leave high school basically. Interestingly, of course, there's been a really strong research focus on fictional narratives in particular. And if we then think about what about personal narratives, you know, how does that link in? And I really like that construction integration model by Kinch because to fully understand the text, whether it is written or spoken, we really need to construct this text base, right? This representation of the content of the discourse or the story. So that's the construction,

combined with the reader or the listener's interpretation of that content and that's that integration. And that integration is really based on your personal knowledge and the experiences that you bring. So activating that background knowledge and bringing personal knowledge to what you read, can help you comprehend or can help the students or children comprehend. So the students that need to draw on those coherent, what we call event narratives and life stories to make text to self connections. So when considering assessment of personal narratives. How do we do that? You know, there were so many choices to make. The first one is do we do retelling or generation?

Do we ask them to recount a personal narrative with a prompt, or do we wait for them to perhaps spontaneously come up in conversation and accounts? Shall we use specific starter prompts, including conversational maps, for example, and I'm thinking you're probably all familiar with those or do we use simple topic prompts? So we really had to be careful to create or try to create a culturally neutral protocol for eliciting personal narratives from this group of ten-year-olds. So what we came up with is a standard protocol and definitely a standard protocol, because we wanted to try and keep that consistent across different countries with verbal prompts only, no pictures to really avoid cultural bias that could creep in when we use particular pictures. We asked all children to tell a story.

So to tell a story can mean something different, of course, in different cultures. And we wanted to make sure that kids could have their own interpretation around what telling a story meant for them. So I've just seen a question come in. That's why I'm actually stopping, but I'm going to address that one later Christie. So we wanted to use topics that may appeal or be recognizable to children across the globe. So tapping into feelings, mental states or emotions, we wanted to of course, stick to what really is sort of best practice, I suppose, at the moment. So using neutral sub prompts so that we didn't evaluate the children's narratives, but that we really left it up to the children

themselves. So in the end, we provided the kids with six topics and we really used this very standard protocol that was translated into different languages by team members, who were native speakers of those languages. So the six prompts, as you can see on this page, were around excited or really happy, worried or confused, annoyed or angry. And when you felt proud of yourself, when you had a problem and you try to fix it, and then tell me a story about something that has happened to you, that was very important to you. So what we're going to do is we're going to register the full details of the protocol on open science foundation in the next six weeks. So you will be able to download the full protocol from there. What I'm going to do today is focus on story number five, so that is tell me a story about a time when you had a problem and you had to fix it and tell me all about what happened and what you had to do to fix it. Now I do have a little demo video. You can also see the YouTube link there, so you can watch that again later, if you like. So maybe Kathleen, if you can play that or I need to play. There we go.

- I'm gonna read that out to you.

- Okay.

- Okay so I'm going to show you six questions.

- Okay.

- Okay, and I will read each question out loud. Now, each question asks you to tell a story about something that has happened to you.

- Okay.

- Okay, I want you to tell me as much about it as you can so that I can get a very clear idea about what was happening.

- Okay.

- Okay, it doesn't have to be really big or extra special though yeah. So listen to each question and think about a time that you can tell me about, so when you're ready to start, let me know and I'll turn on the recorder while I've got that recorder on, and then you can take as long as you like, but there are only six questions.

- Okay.

- So the first one is, tell me a story about a time when you felt excited or really happy.

- I think it would have to be the day that I got my dog Gus, because like I have been, like, I was begging my mom and dad to get me a pet for a while now. I was hoping it would be a cat, but still, it was really exciting knowing that like, I'd have someone that was like I was responsible for. And that just felt really nice.

- Great. So can you tell me a little bit more about that?

- My brother was terrified. He is always terrified of dogs, but once he met Gus, I guess he kind of warmed up to dogs and saw that they were just playing, and that they're really cute animals.

- That's so good. Is there anything else you can tell me about it?

- No, not really.

- Okay, fantastic. All right. I've got another one. You ready?

- Yeah.

- Tell me a story about a time when you felt worried or confused, perhaps a time when lots of things were happening and you didn't know what to do.

- That's hard.

- I'll tell you what? Other children tell me about times when they had to do, for example, a project for school, or sometimes they'd tell me about when they've moved house or something.

- Well, when I moved house at first, like I moved to Melbourne and then like...

- [Marleen] All right, we'll stop it there, Kathleen. All right, so hopefully that gives you a little bit of an idea of what it looked like. And what we did is we asked all examiners to at least watch the demo and then create a demo in their own language. If they, for example, got students to help them, speech pathology students, to help them elicit samples in their own countries. So let's go to the next one. So of course, eliciting was one issue to consider. And as I said, this is the pilot stage of our Global TALES project. So that's why we only recruited 20 children from each country initially, children who were doing okay at school and there were no concerns about speech or language difficulties, and no history of any speech or language intervention. But then what about analysis? You know, we really needed to then consider what language skills of course, do children need to provide a narrative or what language skills do children use and what makes a good story? What do children actually talk about when we asked them these reasonably open-ended questions? You heard that we did have some follow-up prompts because some kids may need a little bit more information, I suppose, to get

them started. So, and how do children express their emotions, attitudes, beliefs, and effects? Like how did they get across to us why it mattered to them? And how can we do this reliably across cultures and languages? Now, a bit of a spoiler here. I don't have all the answers to all these questions, but they're good ones to ask. So what I'm gonna do is I'm just going to show you an example here of, and we'll call him Sam and Sam said, in response to the problem and you had to fix it. He said, when I broke my arm, when I broke my arm, I did a slide tackle someone. And they went up once I had broken my arm and I came back to school the next day. The person that broke my arm didn't really say sorry. And I had to like, he was laughing.

And so I was really annoyed with that. So I had to like try to be, try to control my anger and what I had to do to fix it was I had to, so they wouldn't say sorry properly. So I had to forgive them, like without them saying, sorry, which was really annoying because they didn't even say sorry. And then there are a few lines after that, but I think you get the gist of what Sam was trying to tell us. All right so then let's keep that in mind and look at the multiple ways that we've started to look at these narratives to find how that might work across different countries and cultures.

So the ones that I'm going to focus on today are the microstructure, macrostructure, we'll briefly talk about topics and themes and then talk about evaluation types. So what we've tried to do is not completely reinvent the wheel, of course, because there's a lot of really nice research out there that we wanted to borrow and trial. All right, so at its microstructure level, we've simply as you would, asked how long is the narrative. And remember for this presentation, I'm only focusing on that narrative number five, the problem one. So utterances and we used C-Units and the total number of words. How grammatically complex, and we use main length of utterance in words. How semantically diverse in number of different words. Now, all samples were transcribed in SALT, and we then calculated those measures automatically. And for Sam, we had 18 utterances and main length of utterance of 11 words, 196 total words and 88 number

of different words. So nice, but it doesn't tell us much does it? So let's move on to the next one. Macrostructure. So what we did here is we actually borrowed a story grammar. We used a story grammar approach, because of course this was a problem oriented personal narrative. And I'll come back to that later because I don't think we can actually use story grammar approaches for all types of personal narratives, but we really, for this one, we asked the child to tell us about a problem and what they did to fix it. So it lends itself quite well to that we felt, so what we did here is we used Ron Gillam's Missile One, and we adapted it.

So that's monitoring indices of scholarly language, and you can see the link on this slide as well. So you can download that rubric if you're interested in having a closer look. And so basically what it does is it looks at character, setting, problem, internal response, plan, action, consequence, and conclusion. So what I'll do is I'll just run you through how Sam performed on that if we wanted to look at his performance in story grammar, if you like. So to scoring was really a zero for absence and one for minimal and two for meeting expectations or standards criteria, three elaborated or complex.

And then those scores were awarded to each elements. Now what we did is we adapted it by being more specific in our examples, because what we found straight away is that to have something like this reliable across different stories, wasn't very easy because it's not like fictional retelling where you've got a model story and then you know exactly what you're aiming for. And the kids came up with all these different topics. So that's how we strive to get around it. So for example, with character, what we did is the character, it had to be someone who was involved in the story. So there were zero points if no character was included beyond the narrator. And one point for Sam, because he included at least one character or a group, but no specific person. So that's how he was awarded one point. The next one is setting. So with setting, of course, we want to look at, is there a reference to a specific time or place? And this time he got two points. He said, when I broke my arm and when I came to school the

next day, and then the next one is initiating events. So here we're looking for the event that motivates or elicit the actions, or that starts the story. So it has to be explicitly stated. We didn't want it to be inferred by the scorer. And actually Sam here, he says, the person that broke my arm, didn't really say sorry and he was laughing. So we have a really nice idea of what that initiating events might have been. For more points, there had to be two or more initiating events. So remember the skeleton of the scoring system was one that we adapted, borrowed and adapted from Ron Gillam. In an internal response, he said, I was really annoyed with that. So that was a clear indication, a plan that was only a one point awarded for plan, which is really works. He tried to do to solve the initial event where he said, I had to try to control my anger. So there was some attempt at putting in a plan.

Action attempts was a tricky one because really would we call it actions in the end, we decided we did. I had to forgive them without them saying, sorry. And I had to forgive him for two things. No consequence and the conclusion or closure was I was really annoyed. So by, as I said before, by creating a rubric with lots of examples and trying to be as specific as possible and lots and lots of meetings later, we actually got quite good reliability between the English-speaking countries. And I'll show you a little bit more of the results later on. So topics and themes was the next one that we looked at. And I realized that Carol sort of mentioned that in passing on Monday, what we found is when we looked across different dishes, actually across the different countries, we found that a lot of kids talked about peer relationships. They talked about school issues, talked about causing damage about fixing or making something about lost items, illness, injury, or medical conditions, honesty, and family events. So Carol was the one, Carol Westby was the one who really sort of tried to look at the themes and tried to categorized in subjectively. And we definitely want to do a little bit further work in that area. And then the fourth one that I wanted to point out this afternoon is evaluation types. So we definitely borrowed those from Peterson and McCabe, 17 codes, quite a few, which really then looked at mental states, verbs, intensifiers,

modifiers and so on. So the ones that we settled on were these ones, so in a way we didn't include the ones where you had to listen to sound files. We try to just do the ones that we could look at from a transcribed sample. So for example, other ones that we could have included is stress, but you really need to listen to the sound file for that. So exclamations, repetitions, I think you're probably all familiar with those. We had to compulsion words, use of figurative language.

That was a very tricky one especially once we moved away from English speaking countries, from intensifiers and modifiers, I'm going to give you some examples in a minute. So negatives, intentions or desires. I think these will all make sense here. Causal explanations, judgments, emotional states, tangential information. Again, that was a tricky one to code. You know, that was information that wasn't directly relevant to the personal narrative. Dialogue, so whether there was any direct or indirect dialogue and then words per se. So words per se, really, in our opinion, refer to words that are your tier two words.

So beyond your basic words, like go and sit, but not sort of those technical terms that you would come across in, for example, science texts. So then Nikki Nelson actually started looking into 'cos I'm very lucky. Nikki Nelson is another amazing person who's part of our child language team. I have all the names on the last slide. I will acknowledge everyone's work on this, but it was a really nice way of looking at it. Because if you think about personal narratives or stories, you really must construct sort of two landscapes simultaneously is what Bruno called it. So on the one hand, you have that landscape of action where it's all about, yeah, the arguments are all action. So agents or intention or goal, and that's really almost corresponding to that story grammar. But then there's also that landscape of consciousness and consciousness is really what those involved in the action know, think or feel, or do not know, think or feel. And it's such a nice way of thinking about personal narratives, I think. And the two landscapes are essential and distinct, and I'm just going to read this quote from you

and that's from Bruno. And it's the difference between Oidipu sharing Joe Caster's bed before and after he learns from the messenger that she is his mother. So please don't be offended by that, but it's a really nice way of thinking about how your landscape of consciousness might actually change and the actions might still be the same. I think it's fascinating. All right, so moving on then if, and again, Nikki really tried to then categorize them on the action and consciousness, those 17 codes, but we didn't include in the end our exclamations, repetitions and figurative or judgements calls, 'cos it didn't seem to fit nicely. So I'll give you, we'll go back to the same example. So this is our Sam and Sam, what I've done here is in red, I've highlighted the ones that are the landscape of action and then in blue are the ones that are the landscape of consciousness.

So when I broke my arm, I did a slide tackle. So that's sort of a moderating word for that. The type of tackle it was, and you can see that the person that broke my arm didn't really say, sorry. So that negation actually really tells us something not about broke my arm, ignored me. No, he didn't say sorry. And didn't really say, sorry. So there's a lovely intensifier. And I had to like, now this is an unfinished uptrend. So whether we will include that at some stage in our analysis, we're not sure yet. Oh, he was laughing.

And so I was really annoyed and here an emotional term creeps in with that. So that's a course or explanation. So then if we go to the second part of his, taking a sip, his narrative, there's a compulsion. I had to try some intent to control my anger and what I had to do to fix it was I had to, and that's in macing brackets. So we wouldn't calculate that as part of our MOU or we wouldn't quote those ones in brackets. And then another negation, they wouldn't say sorry properly. So I had to forgive them without them saying sorry, which was really annoying because they didn't even say sorry. And that's where that judgment phrase comes in. It's because it's the speaker who puts a judgment on it. Now that judgment, we didn't get very good reliability on that either. So

we really need to decide how we can improve on that or whether it's something we want to leave in or take out. I'd be very happy to hear your opinions on that actually. Then let's look at the different examples. So this is a girl, a female, and same problem, prompts. And she said, one time I wrecked my sister's dress. So that's your words per se in there. And I was told to try and mend it. So I just ended up gluing 'cos I was pretty young. I put glue on a piece of paper, I think, 'cos there was a rip down the side. So I put glue on the paper. It was a colored paper. That seems tangential. I think it was a pink dress and a pink piece of paper and I just glued it on. So those ones are the ones that didn't come into the landscape of action or consciousness. And then she goes on, she said, and here you go. And she thought it was hilarious 'cos I think she was five and I was three or something. And then I took it to dad and he said, "Oh, what a good job."

But I think I might ask if your mom can fix it instead 'cos I don't think this will stay on for very long." Bit of a hypothesis there. It was pretty funny. So it's really nice I think how the kids come up with very different stories and how they really use their language differently to get that message across of how meaningful it was to them. And you can see that this girl actually used more of those consciousness type words than the male did.

But of course I just picked those two. Hey, it's not that they are representative of all the girls and all the boys. All right so, I just want to, I just looked at another question, but I think I will answer them at the end if that's all right. So then let's look at our pilot project and what we've seen so far and what I'm doing here is I'm going to focus on the four English speaking countries. So the US, the UK, Australia, and New Zealand. So why would we look at the English-speaking countries separately initially? Well, really what we want to do is we want to reduce some of the challenges of that interlinguistic coding. We want to avoid sort of challenges of translation and reliability then of coding across different languages. And we wanted to evaluate whether the analysis

techniques sort of worked with less influence of linguistic differences. So we just wanted to make sure does our protocol elicits enough language from ten-year-olds across all these different countries and actually it did. It worked well in that respect. And then we wanted to sort of start trialing that coding system. So we'll show you what we found, let me find my mouse. So then the research question was really are there differences in performance between children from these four English-speaking countries? On the four measures that I just mentioned and I'll just mention themes very briefly. So let's have a look at this slide. So what we did, first of all, we looked at the mean total utterances by country.

And what you can see is that a MANOVA. So a multivariate analysis of variance showed no differences by country. So even though the bars look very different, once you statistically look at that, it wasn't significant. And I should've put an effect size in here, which I didn't and I can't remember it, but it didn't come up as anything significant. Now what I want to point out here is that, of course, we're only looking at the problem narrative, which was for the kids in the UK a mean of only eight utterances with a standard deviation of four.

So there was big variability between individual children and you can see that standard deviation is large right across the different countries. I actually need to use this one. I forgot about that. I've been using my mouse anyway. So you can see that the standard deviations are quite large. And that the means actually, even though Australia seemed to use longer more utterances than the other countries that was not statistically significant. So let's go to the next one. So then we looked at the mean length of utterance by country and what you can see here again, the MANOVA. So that's in this little box here, showed no differences by country for mean length of our trends. And actually that is very similar to what we found in our previous studies when we compared, for example, kids' performance on "Frog, Where Are You?," or in conversation between the US and Australia and between US and New Zealand. I did

quite a few of those projects with John Heilemann because of course, creating, we've been creating databases of typically developing children's language samples for years and years now, but to reinvent the wheel for every country is quite expensive and time consuming. So I'm always really interested to see the differences between countries, even if we speak more or less the same language, not quite. So coming back to this then, no significant differences by country. And here, what we can see is that we have a mean length of utterance sort of varying between 8.8 and 10 and the standard deviations, not too bad for mean length of utterance, which is what you'd expect.

So then let's move on to number of different words. So number of different words, because we've controlled for just a one prompt gives us a really good indication of expressive vocabulary or semantic diversity. Now what you see here is, was highly correlated with a total number of words. Now, what that means is that we actually get very semantically dense, linguistically dense samples, which is good to know because that means that the kids were really trying to use their vocabulary to get their message across. And there wasn't a lot of repetition of similar words. Now this time we did find a difference by country for number of different words, but only for the Australian children doing better than the New Zealand ones.

So the Australian ones used on effort, 66.6 and then the New Zealand ones only 42 words. And again with large standard deviations, which at this stage, doesn't worry me too much. It's actually often when we look at spontaneous language samples and we look at analysis, we get large standard deviation. So once we start collecting more samples, we can actually have a look and see if that standard deviation comes down a little bit. So then looking at this story grammar ratings by country. So remember this was based on the missile story, grammar scheme by Ron Gillum. And what we found is that the MANOVA showed a significant mean effect for country, right? So there was something there that was different for the kids by country. So how you read this is on the X axis we see all the different elements. And then on the Y axis you see from zero,

this should have said three points. I need to use this pointer, not very good at that. You see it would go up to three maximum. So what we see is Australian kids here, then the New Zealand children, UK and US. But once we do our post hoc analyses, there was only a significant difference for setting. So the Australian kids did better than the kids in the UK and the New Zealand kids did better than the kids in the UK. So if you look at the UK kids here, so that's your little bar there. So we definitely need to look more into that. What we did find is that most of the kids in the three countries, except the UK came from middle to upper class SES and the kids from the UK from low to mid SES. I'm not saying that that would have a direct effect on setting, but that might be why we see the UK kids actually across the board before being lower, even though that didn't reach significance.

So then let's look at evaluation code frequencies. So frequencies actually means that it is the, let me get that right. It's the mean number of evaluation codes assigned per personal narratives. So that's the way we calculated it. And this is mean counts for the 80 samples across all four English-speaking countries initially 'cos we just wanted to sketch and see what is actually using, what kind of evaluative device do kids use more or less and that might then at some stage, give us some sense of whether we could narrow it down to some over others, but you can see definitely lots of intensifiers and modifiers per personal narrative and negatives, less exaggeration. So that's how you interpret that particular slide.

So we'll go to the next one. And then what we wanted to know is we wanted to look at the differences by country. And then remember we looked at action related evaluation codes and as well as consciousness related evaluation codes. And what you can see in this slide, which is really interesting is that we had differences by country for only the action related evaluation codes. So the action ones are in the red and the consciousness ones are in the pink, but not for consciousness. So for consciousness, there were no differences between the countries at all. And for action, the Australian

kids were performing better than the New Zealand kids. And there were no other differences if we compared for example, Australia to the UK. So I'll come to that in a minute. The other thing is what I haven't put on this slide, but we also looked at differences in gender. And what we actually found is that we found that the girls were outperforming the boys for both action and consciousness. So that is actually in line with what we were expecting. So we've got quite a few sort of little pointers now that our protocol might actually be quite effective and that some of these analyses might be useful to take further. Okay so what I found with our conclusions, what we found is that it's feasible doable, and it does elicit spoken language from ten-year-olds around the world. We looked at all our samples across the Greek ones, the Russian ones, the ones from, let me think what were the other ones and Israel, and actually found that we got equivalent number of utterances in response to the prompts. So that's really promising. The samples are short, but linguistically very dense, which is promising again for getting an insight into how kids used our language to get the message across.

So focusing on the English-speaking country, then we found similarities across countries, especially in that mean length of utterance, in words. And again, that is consistent with some of our previous research and that microstructure, macrostructure level, get rid of that pointer, we found that that story grammar coding seemed promising with great potential for clinical practice across countries, languages, and cultures. And some of my colleagues have just started to try and apply that story grammar coding to their samples in Israel, for example, and found that it was useful. But we now need to look at how do we make sure that we're doing equivalent things across different countries. So differences in performance between countries may be related to the types of evaluation, so that's definitely something that we want to consider. And despite similarities, we did find differences in themes. And what we found is the English-speaking countries about half of them so 42 out of the 80 samples were about peer relationships when we talked about the problem narratives, there was only nine, so that's one eighth problem with school tasks. Some kids talked about

fixing or making something and some about damaging something that was owned by someone else. And then when we looked at the Taiwanese samples and I think that's what Carol pointed out on Monday, eight of the 20, so that's almost half of those kids talked about academic achievements and four of them about school supply responsibilities and only three of the 20 kids looked at peer relationships. So it was really interesting to find some of these differences in themes. We've gotta be careful though hey, 'cos we've got very small samples at the moment. So future directions that are very clearly due to participants represented country, those Australian samples, it doesn't, I have no reason to think why that would be providing longer samples.

Now we did only collect those samples from two schools in Queensland. And what we're currently doing is, well next month, actually, hopefully with the current restrictions easing a little bit, we'll be collecting some samples from WA. So Western Australia, just to see if it was something that was specific to that school. We're going to tighten reliability for coding of evaluation codes and definitely continue with all our planned data collections. We really want to investigate sensitivity to age and year of schooling. So before going into looking at children with disabilities, we want to widen the age range and look at whether a year of schooling might make a difference to kids' performance overall.

So I just wanted to acknowledge my amazing colleagues. I'm so lucky to be part of this team, including no doubt, you know, Nikki Nelson and Carol Westby, but then also my colleagues, Gail Gillon from New Zealand for example, and I do have a website, no financial interests, where you can download some elicitation materials. Our aim is really to try and make things freely available as soon as we've got them up to a standard where we're happy with it. So like I said, it'll all be open science. That's our big wish for the future and lots of references, which I won't bore you with. So that's all I had and I've done well on time, 56 minutes. I'm wide awake now, by the way. We have some questions that we can look at that or are they being deleted as they go? So Elizabeth

says, I have a student who's not yet able to tell a story. Would it be appropriate to show pictures first? Oh, it's gone. All right.

- [Trisha] Marleen, I can go ahead and read that question for you. I'll go ahead and read it. And then you can just focus on an answer. So Elizabeth is asking if I have a student who is not yet able to tell a story, would it be appropriate to show pictures at first. I liked that you mentioned cultural bias because I don't think about how impactful that could be. What if I show them pictures their family gives us to use?

- [Marleen] Yes. I really like that idea. And to be honest, I've always used pictures. So what I've done in the past, in my work with personal narratives, we've actually used a conversation on that procedure that we borrowed from Alyssa McCabe and her colleague and we've, but we've then always given them a photo just to get them started to think, look, this might be something that is more child-friendly if you like. And what we found is that we actually had to use different photos in Australia than we did in New Zealand, because in the Outback in Australia, those kids hadn't seen the beach. So it wasn't a very good picture prompt for example. We've also used children's own photos to elicit personal narratives absolutely. We've used, actually on my website, I've got a whole bank of personal narrative or photos of kids doing things that we use to elicit personal narratives. So, no, I absolutely agree. It's fine. It depends. If you wanted to compare it to a database of language samples and we've created a few that you need to stick to the elicitation protocol. Otherwise you might be making drawing conclusions that aren't fair because we do know that the kids might provide less, for example, explicit information, if they have a photo in front of them, because there is less need to get some of that information across. So that was a very long answer and I hope it answers your question.

- [Trisha] All right. Thank you. Next question is, do you consider cultural language differences when evaluating story grammar?

- [Marleen] Yes well, we have to. No doubt. We will have to consider cultural and language differences when looking at story grammar. One example, and I know that I haven't done that enough justice because I focused on my English ones and we really do want to look across different languages at some stage, but one nice example, but more of a fictional narrative is that when we created a database here in Queensland, we had three children who told retold really, really long stories. And we just weren't sure what was going on. There were so called outliers. But when I looked at those transcripts, there were three children from indigenous backgrounds and their stories did not conform to our, what we call our typical story structure whatsoever. But it did conform to the way our indigenous people tell their stories. So yes we have to. And what we want to do is we just want to find a way of comparing across cultures, not to say one is better than the other, but really to understand.

- [Trisha] All right. Thank you. And moving on. Oh, I missed one. This procedure seems ideal for dynamic assessment. Has your team talked about this as an expansion of the process?

- [Marleen] We haven't, but that's an excellent idea Lisa, thank you.

- [Trisha] Great, thank you. Were the children from the US from monolingual English speaking homes without any bilingual influences?

- [Marleen] Yes. So we did control for that and I should have mentioned it. So what we've done is we've actually across all the countries that we're looking at at the moment, we've asked for children who speak the native language of the country they live in, at least 80% of the time in their home. Yeah, we have for now.

- [Trisha] All right thank you. And then could you kindly clarify across different English-speaking countries were significant differences observed in evaluation types related to consciousness? Thank you.

- [Marleen] Okay I'm just rereading that. So across different English-speaking countries were significant differences observed in evaluation types related to consciousness? No, there weren't. So that was interesting. Wasn't it? Not as far as we could tell, just based on that one personal narrative. So what we need to do really is what we are doing is we're transcribing all six of them and then we want to look across the six narratives because, but yeah, so far now in our pilot project no.

- [Trisha] All right, wonderful. Thank you so much. That does bring us to the end of all of our questions. And Marleen on behalf of speechpathology.com. I would just like to really thank you for joining us. It's been a true pleasure, and we really appreciate you sharing your expertise with us and with all of our members. And I'd like to just thank all of our participants for joining us as well. We certainly do appreciate your time and look forward to seeing everybody again, hopefully tomorrow for a Thursday webinar. If you are unable to join us for any of this week's live events, please know that the recorded courses will be available in our library typically one to two days after the live event has taken place. All right, so let's go ahead and wrap it up there. Thank you again, Marleen. We really appreciate your time and look forward to seeing everybody again soon. Have a great rest of the day.

- [Marleen] All right. Thanks for having me, bye bye.