

Dr. Sean Pert, HCDI20100, 20321 & 30321

Transcript

0:04

Hello, my name is Doctor Sean Pert and I'm a Speech and Language Therapist and Senior Lecturer at the University of Manchester. And I'm going to talk to you today about transcription of children's speech.

0:19

Now, difficulties with producing speech sounds is one of the most common childhood disabilities and it's tempting to think that these difficulties would be mainly caused by problems with the vocal tract. So, for example, teeth, tongue movements and those kind of things. Now, it is possible that there are difficulties with the vocal tract for children with things like cleft lip and palate and with things like cerebral palsy where muscular control might be difficult for the child or young person. However, for the vast majority of children, there's no obvious physical cause to their difficulties producing speech sounds and this is because it's often not the articulators – the tongue, the lips and so on – that are causing these speech sound difficulties. Rather, it is the child's ability to break the code of the language. So, to understand that by using a different sound, a word can have a completely different meaning.

1:31

So, Speech and Language Therapists often encounter children who are saying things like "It a tea" when they mean 'a key' and to us as English speakers 'tea' and 'key' have very different meanings. One is a hot drink that the British are famous for, and one is a metal object to open a lock on a door or window.

2:00

So why is it the children make those mistakes? Well, those two sounds 't' and 'k' are surprisingly similar. They're both voiceless sounds – that means that my vocal folds are not vibrating when I say 't', 'k'; if you hold gently your larynx, you can feel that there's no vibration. But for the "ee" (t-EA and k-EY) part of both words – "ee" – I can feel the buzzing of my vocal folds. So they're both called voiceless sounds. And they're both produced by pulling the tongue down, suddenly making a little explosion of air so they're called plosives. But one is made at the alveolar ridge: so if you get your tongue and you just rub just behind your top teeth, you'll feel that there's a kind of flattened shelf which is called the alveolar ridge and if you say "t, t, t" you can feel your tongue tapping on that area. Whereas if you say "k, k, k" the back of your tongue is kind of pumping up and touching the velum, the back part of your mouth. So children haven't realised that the place of articulation, the front and the back, is causing

the listener to confuse those two words 'tea' and 'key' because they're not making a distinction with their speech sounds. That's quite puzzling to children because they think they're saying the right word so if you say to them, hold up a key to open a door and say "Is this a tea?" they'll say "No! It a tea!" So they're not really monitoring their speech very closely.

3:37

So, let's have a look at how we would make notes on how children are producing their words because as a Speech Therapist I have to make a permanent record of those kind of speech disorders. So, if I quickly share my screen, you can see the International Phonetic Alphabet, and this is organised according to the vocal tract. So, you'll see 'Bilabial' means two lips. So this is right at the front of the mouth and sounds like 'p', 'b' in English and you push your lips together and let the air push them apart suddenly for both 'p' and 'b', and the only difference is your vocal tracts are vibrating for the 'b' louder sound and we move further back through to dental sounds like "th" (as in "thin"), "th" (as in "these") and alveolar sounds like "s", "z", "t", "d", "n", right back to sounds at the back of the mouth like "k", "g", and "ng" as in words like 'lung' and in English, we don't go much further back than that. So that is the International Phonetic Alphabet and one of my jobs as lecturer is to help students to learn how to do some careful listening and to transcribe to write those symbols down.

5:02

So, what I've been using in my online learning is this program, which is a Microsoft program (Bamboo) which shows as a simple notebook. I can show you some of the symbols and why they are required for making a record of children's speech sound problems. So, in English, "sh" for example is written with two letters as a digraph. So we have actually just one sound, "shhh". You don't move your tongue. It's just making a scratchy turbulent sound behind the alveolar ridge: "shhh". It isn't actually "s" + "h", so if we contrast that with "sss" which is written the same as the English orthography. Similarly, sounds like "r" in words like 'rabbit' are actually written as an upside-down "r" because in phonetics in other languages, there is this symbol which is a trill, so that would be in something like Italian where we have "rrr", so if you wrote it with English orthography a speech therapist would expect that the child had said "RRRabbits".

6:34

Interestingly, English orthography, our written language, doesn't really reflect how we produce sounds and we are so familiar with written letters that we can be tricked into thinking that different sounds exist and they really don't! So, for example, if you consider the word 'space', so, outer space – you might have a

little boy who is really motivated by astronauts and space and you want to talk about that and children with speech sound disorders often miss off complex clusters. So here we have two consonants following each other, "s" and "p", and this is quite difficult for children to realise that they need to use two sounds together. Now what makes it more difficult is people think that the sounds are "s" and "p", "p" being a quiet sound where the vocal folds are not vibrating. But in reality for all accents, it's actually produced like this: "Sbace". So you've got "sss" + "b" + "aye" + "sss", and you look – in English, we use a 'c', which is different from the first grapheme, but actually the sounds are the same at the beginning and the end. "Sss" + "b" + "ace" = 'space'. And if you don't believe me, using a computer you can cut off the first sound of an auditory signal and everybody perceives it as 'base', so s-clusters like "sp-" are pronounced as "sb-". And the same with a word like "school", which doesn't look anything like it's pronounced because it looks like "sk" + "hool", but actually it's pronounced as "sssgool". So here we have a "sg-", "sgchool" = 'school' and we have an "oo" sound. And a "dark l", so your tongue raises up slightly at the back when you say "l" sounds at the ends of words like 'school', 'hospital', and things like that. And children will also make quite gross speech sound errors. So they might do something like produce a word like 'spoon'. They might realise that as "boon". So, when I write this in the client's records, I can then see how a child has exactly produced the word and then can analyse the speech data and come up with a care plan that will help the child to realise how to produce their speech sounds correctly and clearly so that they can be understood by their peers, other children, their teachers, their parents and their wider community.

9:43

So, being able to transcribe in this way, live on a Zoom lesson, really helps the students to see not only how we transcribe but the shape and relative sizes of the IPA symbols that are used so frequently in case notes for children.

10:04

So, this is the use of technology to show live transcription. You can do something like a Bluetooth tablet that you just simply write. You can also use an iPad and you can share the screen over Zoom and we'll put some details on how to do that in the links. So I hope you found this interesting and please do get in touch if you'd like to know more. Thank you for watching.