Welcome to the Oxford Education Deanery podcast.

In this series, we explore the latest research from the Department of Education at the University of Oxford and discuss the real world implications for teachers, parents and policymakers.

Each podcast is accompanied by a deanery digest, a short, plain language summary of the research, which can be downloaded from our website.

Welcome to the Oxford Education Deanery podcast. My name is Hamish Chalmers, and I'm here with Doctor Kate Hamilton, who's a researcher at the department with a particular interest in language learning and song.

Welcome, Kate.

Hi, Hamish. Thanks for inviting me. You're very welcome.

So you were a teacher for a number of years, and you were involved in singing multilingual songs with with very young children and their families.

Tell us a little bit about your background. So after I qualified as a secondary teacher, I was teaching French and English up in Scotland.

And, um, I found that children were a bit reluctant in the teenage years languages.

But when I had my own children, um, I discovered that babies learning language from really early on,

which sounds a bit silly to discover that, um, as a, as a parent, when I was already a languages teacher.

But I started to explore how I would do languages with really young children.

And they were my own children, and we sang songs. We did, um, stories.

And then it kind of grew into a group where we basically sort of went on a bit of a linguistics journey through ten different languages,

all through singing and, um, looking at where the languages come from.

And then maybe we'd sing The Wheels on the bus, which is a familiar tune in English,

but we'd also look at how it would be in German, and then we might say, uh, do you?

If you're happy and you know it, clap your hands and do a comparison of Italian version and Spanish.

So discovering the the world of different languages, the multilingual world that we live in through song.

Yeah. I mean, it sounds so intuitively sort of right to be introducing, um, essentially educative content through songs.

Uh, I was a primary school teacher for a number of years, and I was singing songs at every possible moment that I had.

Do you find that that teachers are particularly sort of married to the idea of songs as a way of teaching?

Um, well, it seemed very natural. I think natural is the word that comes up.

It's just part of the fabric, if you like, of early years education.

And as I went out there with Babel Babies, which was the group, I was going into pre-school setting,

and there was never a question that this would be a good approach to do, uh, languages whose singing it just seemed to be completely obviously,

uh, obvious is sometimes, uh, you can be on a little bit of a sort of hostage,

hostage to fortune there when through teaching, what feels obvious when we look at the evidence might not be so obvious.

Is that something that you found? Yeah. So, um, as I was going into more settings, I was working also looking at primary school languages,

and I wanted to sort of bring some evidence with me to say that this approach

was actually going to meet the objectives that the educators wanted to meet.

And I found very little in the way of evidence other than teachers swapping teaching ideas with each other.

I'm like through blogs or textbooks and things.

And that's when I started to kind of try and unpack the evidence base for using songs as a way of teaching languages for children up to age seven,

and I couldn't find that much, which is where I started my research. Right.

So the research project is about what evidence do we have for using songs, uh, on what sort of outcomes?

Because education is very contested in terms of what is what is a valued or valuable outcome.

So can you be quite specific about what you were looking for?

Yeah. So I've actually done three projects. So I've got different different outcomes that I've looked at.

So the first one I wanted to see is it just me looking at songs as a teaching thing for languages, but also at that point I stay quite broad.

So I did um, project looking at early years and primarily how they use songs.

So that could have been for any part of the teaching. And then the sort of more narrow focus I took after that was on languages teaching.

Um, and it was second foreign languages, and I was looking at the outcomes to do with linguistic learning.

So vocabulary, grammar, reading and speaking and writing and listening.

So you said you start off by sort of looking and seeing what teachers think about why they use songs or how they use songs.

Can you give us a bit more detail about what they thought songs did for their children?

Yeah. So, um, broadly speaking, I did a survey and, and, um, some follow up interviews.

So what seemed to come out through the survey is it teaches you songs for different purposes, including language, um, acquisition.

So maybe something like vocabulary or teaching the topic vocabulary if you're doing the season something in early years or they um,

you songs for behaviour and classroom management. So like the lining up song or the tidying up song or um, or doing a transition.

And then there was the sort of social emotional side of things bringing a bit of group cohesion or something like that.

And the last one was for content teaching. So maybe a song about The Viking or something about Autumn is those four broad areas.

And so we kind of understand from that part of your research what people are using songs for.

And you then focussed in on that using songs, because it helps us to teach essentially new

languages.

Yeah. So the way I ended up making that jump. So in my first project, I had um, teachers from early years through to the top of that primary school.

So Key Stage two, um, who were responding and who I interviewed, and I interviewed people across all these different age groups.

And what I found is that early years teachers, as we said at the beginning, you know, it's a very natural thing.

Songs turned out to be part of the fabric, just to quote one of the interviewees.

What we do in early years, and teachers who responded so that they use songs frequently,

like more than once a day, which, you know, that's not rocket science.

We would expect that from early years. But then as you go further at primary school, say in Key Stage two, it became a lot less frequent.

Teachers songs every day. However, in the key Stage, two languages, teachers were using songs a lot more like the earliest teachers.

So like bookending the lessons with hello in the goodbye songs, introducing vocabulary.

So different if it's French and different topics, um,

through singing or even singing specifically to teacher point of grammar like the e r verb endings or,

you know, it's like the verb song to the tune of the Pink Panther or something.

So it seemed to be the way teachers are talking about it. One of them said that the words just go in your head without thinking about it.

If you learn through a song. So there was something special about language teaching in primary school.

Um, when children from age eight and above that seem to be a bit more like, how early is teachers using songs?

And that's when I started thinking, okay, so why do we think singing might be effective for actually learning the language?

And you know, what evidence do we have about it? Okay. So we could bring ourselves to the the evidence side of stuff.

And like we said, it's, um, very common for teachers to have assumptions for all of us to have assumptions about what might be effective.

But we can we can underpin that through looking at research.

Yeah. So, um, in that first project, I, you know, did a good dig around, if you like, for research,

but I couldn't find very much to sort of pin, um, you know, what would we say would be effective about singing for language outcomes?

It seemed to be that there was some sort of. There's a thing called the song Stuck in My head hypothesis, which kept coming up.

And when I read about that, that turned out to be, um,

a language teacher in Switzerland who had done a survey of his class and said, did you get a song stuck in your head?

And they all agreed that they did. And I thought that wasn't, you know, necessarily what I was looking for.

If I wanted evidence, I wanted to see, like, you know, singing,

being compared with something else and to see what progress was made with actually learning language.

So what I did then, um, having sort of drawn a bit of a blank,

he was like old Mother Hubbard's cupboard with their by this point is I did a systematic review because

it could just be that I completely missed the evidence because explain what a systematic review is.

Um, so it's where you come up with a really kind of clear set of, um, objectives for your search, and you have a very transparent process.

So someone else could do the same search and replicate it exactly the same way you did.

And I had a search strategy I sort of prescribed, if you like,

what I was going to search for and on what databases, then how I was going to evaluate it as well.

The aim is to find what everything that's been published on this topic.

That's the idea, is that you kind of aiming to find the totality of evidence in a very specific

sort of, um, way and for a particular topic.

And so what were you looking forward? Yeah. So I wanted, um, studies where the singing had been used as a whole class, um, activity.

And it didn't have to be singing, as in the children were singing songs.

It was something where songs we. So they might have been looking at song lyrics or something song related,

or nursery rhymes or chanting, because sometimes it's not very clearly clear what the boundaries are,

but things, um, and it had to be a study conducted with children so aged 2 to 18, uh, in a formal educational setting.

So in a school or something like that. And then the study needs to measure some kind of language outcome.

So we know songs might be motivating, etc.

But I really wanted to know, do the children learn, uh, you know, more vocabulary or do they learn more grammar, etc.?

So I had quite a broad set of outcomes. Anything, as long as there was something measured to do.

As it turned out, that was very grammar reading, writing, listening and speaking.

So you've done this exhaustive search. You've tried to find as much as you can that looks at using songs or nursery rhymes

or chants in the classroom to see whether that promotes the learning of language.

So when you had gathered all of that information, what did you find?

Was there clear evidence that songs work and they work particularly well?

So what I found was that there are quite a lot of positive claims made about singing compared to, you know,

other this might do, um, in terms of language learning, but I did a quality appraisal of the city.

So that's where you sort of look at, you know, how trustworthy is evidence they present, um, and out of the 60 studies only.

We had a very high worthiness rating. Right.

This is research that you can sort of makes it clear. Research that draws a clear line between doing this a results in that.

Yeah. So it's what you might call a causal link. So they say if you do songs it will come out with this outcome.

Um, and yeah, so 43 of the studies had a really high risk of bias, which means it's not super clear that those results are trustworthy.

And they were just some basically non-scientific things happening in their studies, like they didn't have a control group.

So you can't really say that singing compared to something else would be better.

But there were quite a lot of positive claims from studies with a, you know, low trustworthiness.

Who was saying singing was more effective.

But actually, in terms of what we can conclude from studies that were a bit more trustworthy is not very much either way.

So there wasn't a clear cut singing, uh, compared to something else is more effective with studies that were trustworthy,

sort of found sometimes that singing is better and sometimes it wasn't.

Um, so it was really unclear actually the end what we could say, basically we couldn't say very much.

Right. Which was kind of the opposite of what I was hearing from my own practice and from the teachers in my first.

Yeah. So people with strong beliefs, but but nonetheless beliefs rather than something which you could call evidence based.

Yeah. It was hard to sort of it was hard to pin any really strong conclusions on on singing.

It didn't look from that evidence base that, um, doing songs would be more or less effective.

We just didn't know whether it basically had like nothing to go on, which was really interesting.

So you've talked to teachers about what they think songs are good at.

You've then gone into the existing evidence and had to look to see whether there is evidence that would support those views, found it lacking.

So what's the next step on that journey?

Direction I was coming from is it if we're going to make a claim to say to teachers, if you do songs that will result in these kind of outcome,

on average, these types of business, you need a really specific type of research to be done.

So you've actually done a clear comparison of singing to something else.

And that's something else needs to be stuff that teachers might actually do.

In some of the studies I looked at compared, um,

say vocabulary presented through singing to not presenting vocabulary and teachers never no do no teaching saying,

right, you know, so you need to have a kind of valid comparison. So that was important to me.

So you also, um, you need to design your study carefully so that you can, if you like, hang any effects, um, on the actual change that you've made.

So whether you were doing singing or in my case, I did a study comparing singing to chanting and to stories.

Okay. So you yeah, you went ahead and did did your own experiment to see if you could come to any causal conclusions about the effects of singing?

Exactly. And I kind of design is called a randomised controlled trial, which sounds a bit fancy,

but basically just means you randomly put people in the groups.

It's not like class one goes into one group does, two goes into another.

So I mix all the children up at random and then hopefully everything else,

apart from changing what type of teaching they got, would be sort of vaguely equal.

And then if there is an effect, notice at the end of the study you could attribute that to,

you know, the thing that I've changed, which is the type of teaching that they got.

And so I did this study with two really brilliant primary schools, um, in southwest of England.

And I worked with year three children, and they hadn't done any French yet at all, so they were completely beginners.

Age seven, we worked together. I mean, we did, you know, lots all sorts of tests of check the equivalence of the, of these children.

So we could do a fair test of the method of teaching.

And then three weeks of French lessons. And one group got everything through singing.

So we did like 24 different French songs. Um, and the next group got the same songs, but without the tune to that sort of more of a rhythmic poem.

And I called it chanting. And then I took all the words of the songs, and I made up a story, and it was a little bit of a bonkers story,

but it had like that kind of narrative arc of the characters going on an adventure,

and there was a problem and a resolution and a happy ending to them.

Were very hooked on the ending, being happy for the rabbit that was the main character, and they didn't want him to get eaten by the wolf.

And then I has a comparison group as well.

So that was quite important that I had another group who were doing normal school French lessons, so they had the same amount of time learning French.

It just didn't have the same in person. Other groups.

I measured them on how well they could listen and repeat some French sentences, because they hadn't heard any French at all.

At the beginning of this sort of three week period, I gave them sentences that got increasingly long.

So they started off really short, like who knew? Which is just two syllables.

And they went up to nine syllables challenging. And they heard it.

And then they had to try and say it. And then I could compare like before and after.

And then I came back six weeks later. And so that meant I had three test points where I could compare the children's progress

across those three times and see if there was any difference between the groups.

So essentially, given the design I had, it was.

If there is a difference between these groups, I should have been able to attribute that to the type of teaching that they got.

Okay, so we've got four groups and one group that's being taught French through song,

one that's been taught French for chanting, another which is a story based teaching,

and then just standard French lesson,

and you're comparing to see whether any of those conditions improves their ability to essentially imitate French or to to repeat French sentences.

Is that right? Yeah. So it's a it's called an elicited imitation task.

So I couldn't expect these children after I mean they had 220 minutes all of French.

So you don't expect them to just spontaneously come up with a lot of French after at that time.

But you would think if you heard something, um, you'd be able to repeat it back.

Like even very short things. You could parrot it back even if you've never heard it before.

So it was the ability to kind of hear it and then process it in your brain and then kind of say it out loud.

And then more accurately, you can say it. We think that that indicates, um, you know, the better processing, you've got a better understanding.

And there's all sound really good because of the kinds of things that you would do in a classroom.

As a teacher, you might make a choice between, well, do I sing songs?

Or if I don't really, I'm not very good at singing songs.

Maybe I'll do chanting, or perhaps a story would be the right thing, or I'm just going to work through took a little or whatever the textbook is.

And and that's going to be the, the approach that I take.

I like this because you've got these very sort of, um, realistic options that again, the teachers could choose from.

So what did you find? So it was really interesting.

So in each group was about 24, 25 children. And um, so the three experimental groups are singing and chanting stories.

The children, by the way, they, they listened and they said the stories out loud.

So it was all oral language. Um, there wasn't, uh, any evidence of a difference between those three groups.

Right? Um, they all came out really, really similar. And I then tested whether I could say, definitely there is no difference between the groups.

Also, they didn't have evidence. There's definitely no difference. They're all very, very slightly different.

But singing wasn't better than chanting or storytelling.

The children all made progress on their oral language and the children in the other group as well.

They also made progress on their oral language, but they just didn't have access to the test sentence through their, um, teaching materials.

So I wasn't really testing the normal French lesson. Um, as a, as a way of teaching.

It was just there was a kind of baseline, like, if you got this much French, would you expect to still make some progress?

So singing, chanting stories all improved this element of their French language learning?

Yeah, they all got better and they all got better to a similar degree.

Um, so have we solved the problem of whether singing uh, uh, French songs in French classes improves?

Um, uh, the French proficiency. Yeah. So before we did this experiment, we basically had no evidence that singing was effective,

that we could then say it's definitely effective for teaching languages.

And now we have this tiny bit of evidence that it is actually helping children make oral language progress.

And so you can't dismiss songs as just a bit of fun.

It's actually, you know, a valuable part of the language learning, which is great news because it means if you like doing songs,

um, you should carry on doing songs with your French class, but that it made no more difference.

And stories perhaps would be, um, reassuring to those teachers who might be a little bit more nervous about using songs,

or less comfortable using songs that they're not missing out on some great thing that they ought to be doing.

Yeah, exactly.

So if a teacher's not so keen on songs, they don't need to feel guilty that they're, you know, letting the class down by not doing the most effective.

Um, um, and it does go a bit against that rhetoric of, you know, people say, oh yeah, Singing so effective, it's more effective.

Um, generally people feel like they've remembered the words to for 40 years.

So, you know, it must be effective. And yes, we know that.

You know, it probably is a way of, of teaching languages. Yeah.

But it's not necessarily superlatively effective. And there's more to the French language than Frederica.

Well, that's the other thing is, you know, whether you can actually take the words of a song that, you know,

off by heart and turn that into communicative language, where you're actually able to use it in a different context.

But that's my next. Well, I was going to ask, what's the next step then, because we've we've now got from no evidence to some evidence.

So where would you like to take this project now.

Um, so obviously we've got to some evidence, but it's very specifically, um, to do with children learning French in primary school.

Um, and I showed the children the words on the board as well.

So there might be some evidence that singing works just as equally well as those other things, if you can see the words.

But what if you don't see the words? So I'd like to know if you're teaching pre-school and the

children are pre literate so they can't read yet,

is there an effect that's different for that. So we we can't just prescribe one thing for all the different age groups.

It might be interesting to look for an age groups. Yeah. Um, and then of course there's lots of ways you can look at different types of songs.

So songs with actions or. You know, songs where you've linked it to a story book,

because there's quite a lot of books where you've got a story and the picture and the singing together,

lots of ways of sort of chopping it up and going forward and having confidence in the in the results of those studies is obviously really important.

Yeah, I think teachers are doing these things. Um, so we should be researching the things that teachers actually want to know about.

And I've since I finished these studies, I've done another small one.

It's called a knowledge exchange project. I've talked to teachers in a, in a focus group about where would they like to see these going next.

Some of these questions are, you know, what about different languages.

You know, so we're teaching a lot more Mandarin these days. Yeah. Um, and Mandarin is a tonal language.

And also obviously singing is to do with pitch as well.

And when you sing in Mandarin, apparently then that's not going to be using the same pitch as if you're speaking.

And it doesn't necessarily automatically transfer to speaking English.

So yeah, lots more things to to think about. Excellent stuff.

Thank you very much, Kate, for coming in and talking to us about this fascinating project.

The project has been written up in three Deanery Digests,

which you can access on the Department of Education website, and I'll put the links in the show notes for that.

Love the fact that you're working with teachers and and wanting to understand what their priorities are in,

in research, and that this is really in keeping with the Daenerys mission.

So more power to your elbow.

Anyone listening who wants to get involved in research around songs, in language teaching, then you know where to find Kate.

Thank you very much. Thank you very much. You've been listening to the Oxford Education Deanery podcast.

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