Supporting Education, Advocacy and Knowledge for Students with Hearing Loss

Recorded December 11, 2019

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AudiologyOnline.com Course #33970
Partner: Oticon

- [Dave] Welcome, everyone. Good morning, good afternoon, depending on where we are finding you today. Welcome to today's presentation. My name is Dave Gordey. And I'm pleased that you could take some time from your day to hear about our research around advocacy in children with hearing loss. So today's presentation is titled Supporting Education, Advocacy and Knowledge for Students with Hearing Loss. So just a little bit about who we are. This research was done collaboratively as a group effort. Our research group is made up of two educational audiologists, Carrie Spangler from Ohio and Krista Yuskow from Alberta, and by Sheila Moodie, a PhD professor from Western University in London, Ontario, Canada. So the information that I'm going to be sharing with you today is a shared effort. And I'm pleased that I could be here today and present on behalf of my colleagues. I also would like to acknowledge the financial support that was provided for this research study, and that came from Oticon. So thank you very much for their assistance in helping us run this project. What are we going to learn today?

Well, at the end of this session, you will be able to describe the essential components of school-based support and resource programs. You will be able to describe barriers to the development of school-based support programs. And you will be able to describe facilitators in the development of these programs. So why did we get started? What was the inspiration behind doing this work? Well, you could say that each of us had our own reasons. Some of them were professional experiences that inspired this work. Others were related to personal experiences that we had growing up. So with Carrie and Krista, our educational audiologists that worked on this study, their 40 years of collective experience working in the field of educational audiology allowed them to see students working in environments where they had peer support and other environments where they were isolated and they were the only student present in the classroom. So in response to these observations, both of them, as individuals, had created formal opportunities within their school districts for deaf and hard-of-hearing students to interact with each other, where the deaf and hard-of-hearing teen served as a mentor. For myself, my PhD work was looking at the importance of classroom relationships and using self-determination as a theoretical framework. And this, along with my work at Oticon doing clinical research, really helped inspire my work with this program. I was well-informed about the work that Carrie and Krista were both doing and realized that there was an opportunity for us to develop a template or a model of their programs that might be distributed in North America and around the world. One of the things that we did realize after some initial discussions was that we needed the lens of a researcher and that this would be very important as we tried to identify research questions and support that was needed as well as any financial decisions regarding funding. And that is where we brought in Dr. Sheila Moodie. And so since that time, I guess this began about two years ago, the four of us have been working together to lay groundwork for our project.

Now, of course, before you begin any research study, it is important to look at the literature. And what we wanted to do was take a look at the research that had been done in general around mentorship programs with children. We hoped we also might find some mentorship programs where research had looked at deaf and hard-of-hearing students. So we developed some research questions that we thought might help us better be informed or make our search of the literature a little bit more efficient. So it was informed by these questions. First, what are the existing mentorship programs for adolescents or pre-adolescents with hearing loss? Second, what are the barriers and things that enable the establishment and sustainability of mentorship programs? And last, we were hoping, when looking in the literature, we might find information around what outcomes are achieved, and how were they measured when referring to mentorship programs? So we searched a variety of databases. And what we found was that no one article addressed all of our questions. And this was looking at multiple databases across different disciplines. So we did do a scoping review, where we were able to gather evidence that we would believe helpful for those individuals who may want to participate in the development of a mentorship program. But as I said, nothing came up where researchers had actually looked at, what was that pathway to creating such a program? So we knew that this was going to be a challenge. One of the first things that we noted in the literature was that there were some themes related to barriers in the development of these programs. So those barriers related to buy-in. And that could be buy-in by student participants or by parents. Second was a barrier related to support. Who was going to provide the time, the money, and do the organizing for these groups? Next was technology. We knew that technology was moving quickly and often required support. And so if we were going to employ some sort of technology to facilitate these mentorship groups, what would be the best technology system or platform to use? We did find that there were some key indicators with reference to implementation. So we found that whenever programs were being developed, having a diverse set of leaders or role models that were involved in designing and developing the program was key.

So for example, one of the things that Carrie and Krista reported was, when they were developing their mentorship programs for their students with hearing loss, it was critical that they identified a team leader with hearing loss to help develop the content and speak to what the program would look like. So this meant that we wanted to have someone with lived experience of hearing loss. We did not limit a cultural component so that, we wanted to be, ensure that it was inclusive to multicultural backgrounds as well as communication cultures, including those that used sign language. We also recognized that socioeconomic status of the students may also inform implementation, meaning that there may be barriers to those students who were of a lower socioeconomic status if they could not provide or find transportation to these groups. We also felt that it was really important that there was an opportunity to communicate and promote the mentorship program. And this means that school administrators and parents had the opportunity to be informed that the mentorship program was really about group discussions in a nonthreatening environment, where the focus was how to live with hearing loss. Next, we wanted to provide an opportunity for parents to come to the mentorship groups to meet the students' leaders and to hear about their stories of success. We also knew that it meant providing a method within these groups where strategies could be modeled and taught, where we could identify topics of importance to students with hearing loss, and provided them with the opportunity to improve their knowledge, facilitate social-emotional learning, and promote self-advocacy skills. One of the major limitations that we did identify in the literature was that no one was using outcome measures to assess the efficacy of these mentorship groups. One study did use the Peds Quality of Life survey. But that was done in a very informal way on a volunteer basis. So the numbers of students that actually filled out the survey was rather low. And no statistics could be calculated using that data. Informally, there was a lot of comments from group participants. But we know that typically those informal methods and reports do not provide enough justification for those decision-makers who may be providing funding for these programs. So that led us to the development of our survey. Essentially, what we wanted to do was better understand the availability of support and mentorship programs in the United States and Canada.

So we created an online survey for school-based hearing professionals working in North America. We would like to extend a lot of gratitude to hearing device manufacturers, hearing associations, and colleagues working as school-based hearing professionals for distributing this survey. So this is an image of our respondents to the study. We had 90 people respond from Canada and 49 respond from the United States. As you can see from the slide, the majority of respondents were teachers of the deaf and educational audiologists. One of the first questions we wanted our participants to help us better understand was, did they, in fact, offer a program? And if they did, what did that look like? So we see here that only a very small number of people are offering a mentorship program at 37%. And most are doing it once a year. For those that are offering the program, it seems like most are doing it during school hours with a few, or smaller percentage, doing it after school, and even smaller numbers doing it on the weekends. Next we wanted to know who was acting as a mentor, and what topics did they cover? So we see that peers and teachers of the deaf and hard-of-hearing were the largest represented group when it came into those who were serving as mentors. When it came to topics, in order of importance, we see that friendship was number one, followed by self-advocacy, and then social skills. So these were the topics that the students themselves identified that they wanted more information or wanted to have discussion points within the mentorship group. So what also was interesting that we found in our survey was that, where there were programs established, these programs had very clear-cut objectives. And we see that the program objectives were having discussions or activities that promoted an understanding of how to make friends, how to have a better understanding of developing social relationships, projects, activities that related to the development and promotion of self-advocacy, and those activities that helped in social skill development. We also see that those programs that did establish themselves, 63% of those programs had funding that came directly from their school district.

So we next wanted to understand what types of surveys, or what types of barriers and enablers were present. And so, in other words, we wanted to know that what we found in the research that supported buy-in were primary barriers for mentorship groups in general, were these barriers also found within those programs that were currently running for deaf and hard-of-hearing students? So, in fact, we did see an agreement with the literature that support and buy-in were barriers on a couple of different levels. So first is obstacles to student participation. We see that a major obstacle was, when talking about support, was the distance or time to travel to where the mentorship group was located. How am I going to get there? So transportation was an issue. Who was going to pay for the mentorship group? If we needed to have school personnel there, if we needed to have backfill time for school professionals, where was that money going to come from? And for those programs that were running this during the school day, how did they backfill the time that was needed to allow students to be excused from class? When looking at buy-in and talking about student participation, we saw that the challenges were really related to those who were simply uninterested or did not identify as being deaf or hard-of-hearing. Some reported that they would not attend because they had an anxiety or an unwillingness to wear their amplification. And they felt by attending this group, this might be a place where someone may be telling them or trying to encourage them to wear their devices more. In rare cases, there were some programs where there was only one student in the district, so there was no one to pair them up with to have, in fact, a mentorship relationship occur. Some parents were concerned about the time away from academics and would not allow their student, their child to participate. Or there simply wasn't a teacher of the deaf or educational audiologist who had the time to encourage participation. Next we wanted to understand about barriers to running the program. And again, we see these themes being repeated of buy-in and support. So when thinking or considering buy-in, issues to running a program was school administration who felt that these programs took away from academic time. The attitude of the support staff and lack of communication was also a barrier, and an inability to connect these mentorship programs with curriculum expectations and showing how the program actually would support the goals around curriculum and learning.

When thinking about support, again, some of those themes that related to student participation also came up again, so distance, transportation, and cost. Also, we saw that there was a challenge with finding space to hold the mentorship workshop. Time constraints, so there may not be enough time to adequately run a program. Carrie and Krista both identified that these programs took about a half of the day. And many schools were not willing to excuse these students for that amount of time. And last, we found that it was difficult, or it was reported by our survey participants, to find the staff to organize and participate in these meetings. So as I mentioned before, one of the gaps that we noted in the literature was the lack of availability or understanding how to measure outcomes with these types of programs. So we saw that the majority of our participants in the survey, 83% indicated that no, they were not measuring outcomes. So again, this is important, because while anecdotal reports, checklists that students fill out, itinerants, communicating with parents and administrators about the value of these programs, these are all really nice things. But we found that administrators, when building their budgets for the upcoming school year, more and more are looking to measurable outcomes, or those activities that are linked with measurable outcomes. So it certainly has been identified as reinforced in the literature that this is something that is very important for us to develop going forward. So one of the comments that Krista and Carrie frequently will make, I guess as a question to their administrators, is around kids going to school only to learn academics. And really, this is, I guess, the start of a conversation around how we create a case to convince decision-makers that support and mentorship programs really do have a place in our schools, as they are an important element in the development of students with hearing loss.

So now let's show you some of those examples of those elements that can be used to build a case for promoting these mentorship programs. So first, we can look to the work of the organization called Collaboration for Academic, Social, and Emotional Learning, or abbreviated as CASEL. So this is an organization that has developed a framework that has identified five core competencies to healthy students with developed social and emotional learning. And those elements are having the skills of self-awareness, self-management, social awareness, the ability to have a relationship skill development, and the responsibility for decision-making. So research has told us that until recently, social and emotional learning has often been seen as a distraction from academics and really been placed on the sidelines. But with the development of this theoretical framework and the work by CASEL, we're seeing that those schools that have been involved in research with this framework, very positive outcomes are being seen related to students' academic success and later learning in life. So provinces and states should encourage schools to support social and emotional learning in the context of new opportunities that discuss accountability and continuous improvement throughout their school life. So in a nutshell, to be successful, we really need to have students that have these competencies well-developed, as these are, having these skills developed are really going to allow them to navigate through and persevere through challenges that present themselves in school and later in life, allows them to empathize with others, resolve conflicts, and make safe choices. So in other words, in today's changing and very complex environments, these skills, more than ever, are absolutely essential. And we now see that many states and provinces are incorporating these types of skills into their policies. We also see that within the goals that are set out by individual education plans from organizations or policies like IDEA, those policies that speak to transition, these concepts of preparing students to be social and emotionally well and competent are well-defined. So for example, IEP goals state that by age 14, students should be able to have age-appropriate behavior, where they are able to transition and manage their independent living skills and engagement within the classroom.

So these types of transition services are also really important for children with hearing loss, because they do outline a very concrete way at which we can reach or meet these goals. As I mentioned before, self-determination is something that I've been doing a lot of work with. And we also see it emerging in different disciplines, from health, from education, industry, workplace behavior. And really, this is because a lot of the elements of self-determination really embrace the ability of an individual to function as a member of a community, where that community is very, very inclusive. So by embracing these concepts around self-determination, we are providing students with opportunities that are going to allow them to develop same-self connections and relationships in a relaxed and supportive environment. Creating activities and learning opportunities with other students who are deaf and hard-of-hearing is absolutely important for student growth as the academic and technology support that is provided by teachers of the deaf and educational audiologists. So if you're not familiar with self-determination theory, it is built upon these three constructs: the need for competency, the need for relatedness, and the need for autonomy. So the need for relatedness is really about the desire of an individual to positive and fulfilling relationships, and that this, having this ability to form relationships with others, is the starting point to becoming self-determinant. When we talk about competency, we're talking about the ability for an individual with hearing loss to have an understanding about why they have hearing loss, why they use hearing technology, and how that fits into their overall identify. When thinking about autonomy, when we think of this, automatically, we may be thinking of independence. But in this case, when thinking of self-determination, autonomy is referring to the ability to have choice, that someone in your environment, for example, in the classroom, is giving you the opportunity to make choices. Why is this important? Well, when we're given the opportunity to make choices, we have what is called intrinsic motivation.

And this is a motivation, which means that it is coming from within, and it is entirely important, or it is very important to me, and therefore I'm going to have much higher levels of engagement in completing those types of tasks. Another framework that is also important when thinking of mentorship programs, or as we try and justify the importance of these to our decision-makers, is the framework of well-being. Okay. This, along with the concept of environmental mastery, is really important, because when an individual is living a life that they believe to be good and satisfying, and they understand the environment around them, this leads to high levels of satisfaction and high levels of feeling well. So these are certainly other elements that are facilitated through these mentorship programs. So next, we wanted to have an understanding of what impact or support these types of mentorship programs could provide. Again, we had Carrie's work and we had Krista's programs that they individually had been running, but they had never formally evaluated what type of impact these mentorship groups had on the students participating within them. So that is something we definitely wanted to take a look at. So first, if you look at the literature that talks about the overview of support groups, we see that support groups have a few main functions. First, they bring together people facing similar issues. Next, they enable the sharing of experiences and sometimes will facilitate advice. It's also helpful to talk with others who are in your shoes. And we see that there are different formats that work for these groups in different types of scenarios. So in other words, a support group can take on many different types of looks, and those, the construction of those support groups really should be done to reflect the needs of those members attending them. So one of the things we looked at when trying to develop a program model was looking at a way that we could create a template or a model that would be inclusive of formal teen and child mentorship and would encourage interaction between same-self peers. Or, in other words, we wanted to bring together or create a model for a group where all children and teens with hearing loss felt welcome to come and connect with one another. We also knew that the model should facilitate the development of self-determination skills and social connections.

And the reason for that is that we know many programs do not formally teach self-determination or how to build social relationships. And so to have a place where that could be formally addressed, we believed was very important. So that is where we came up with this model we call PEAK. And PEAK is the name of the model that our working group is creating. And this is going to be a template for schools to promote education, advocacy, and knowledge for those students who have hearing loss. So let's talk a little bit what has worked for Carrie and Krista's working groups to date. So what Carrie and Krista both commented on was that, in order for these mentorship groups to run smoothly, we should make sure that there was pre-training of the professionals and the teens that were going to be acting as mentors and that they understand the purpose of the working group. Next, we want to identify that the teen mentors had a voice and they were able to provide input on what the programs should be addressing so that any of the topics that were brought up within the mentorship groups were topics that the teens with hearing loss felt was critical to be addressed and important to be taught. Facilitators to having the working group or the mentorship group run smoothly was to ensure that we included all with hearing loss no matter what type or degree they had and that we had our mentors skilled in facilitation, coaching, and mentoring so that, if possible, we could have an opportunity to work, particularly with those teens with hearing loss, to develop their skills as being a coach. We also found that it was absolutely critical to ensure that we had a hearing care professional, preferably school-based, as the main contact person for the mentorship group. And this could be the educational audiologist or the teacher of the deaf and hard of hearing. And this was also critical, because we wanted to make sure we were presenting information that was accessible to all types of learners and communicators. And the educational audiologist and teacher of the deaf seemed to have a good grasp on who the attendees for these groups might be and what their communication needs, how those could be addressed.

They also recognized that these mentorship groups should have an element of flexibility and be adaptable so that if a topic of social skills was on the agenda for that particular workshop but during that particular discussion, an interesting conversation began, let's say, on bullying, that the group should be flexible and fluid enough to let that conversation play out and have that discussion flow naturally so that the program should not have a rigidity about it. So here are some examples from Carrie and Krista that they have shared about some of the groups that they've run. So this is a flier for Krista's very first group, which was called the Technology Summit. So the reason why her and her teen with hearing loss mentor felt this was important was that they agreed that many teens and tweens are at risk for technology abandonment, that at some age, they may cease to use their technology for a number of different reasons. So the goal of this Technology Summit was to increase the students' competency of hearing technology and discuss creative ways their hearing technology could be used in activities that all of the participants thought were rather cool. So that could be learning to play the electric guitar, using your Nintendo Wii, or engaging in some sort of activity that was deemed as very important for students with hearing loss. So they knew that this workshop was about teaching a skill, increasing competency around technology, but they also knew that the simple act of bringing these kids together was also a very critical element and was also very, very important. So for this program, they met for a whole day. So it was from 9:30 until, or, pardon me, from half a day, 9:30 until 1:00 p.m. A pizza lunch was provided. So that was certainly identified as a key facilitator for student buy-in. And it was for students aged grade five to eight. And because this was the first time they did this mentorship group, they decided they wanted to keep it to students that were a little bit older, just to see how group would run and what the flow of the day was like. It was, however, so successful that they did receive a grant from the provincial government in Alberta to increase the number of locations where they ran this type of a workshop and move the workshop location around the province. So their target populations were all students with hearing loss. And going forward, they decided to now offer a concurrent parent session.

So one of the outcomes of that very first workshop was there was a lot of parent interest about networking with one another. So they could share experiences around understanding technology, planning for career development for their child, really just learning more from having parents with less experience benefit from those parents who had more experience with a child with hearing loss. So that was something they put on their to-do list for future sessions was start to, during the same time slot, offer a parent session as well. Also, looking forward to future workshops, they did believe they could offer participation from preschool kids all the way up until grade 12 and that these children would be grouped into groupings based on their age and abilities and that the topics could be more age-specific and relative to the grade that they were in. The high school students were the big star of that first mentorship workshop. And so they did try to recruit more students with hearing loss in high schools to take a role of mentors, as most of the younger kids found this to be absolutely beneficial. So for their next workshop, they developed a skill shop that's focus was to promote self-determination relative to their hearing loss. And so the goals for this particular workshop was to raise awareness and understanding of what hearing loss meant and how their hearing devices worked. It also meant having an opportunity to practice and learn about self-advocacy skills, and that they were in a safe environment where they could try these out to see what worked well and what needed additional coaching. So some of the incidental outcomes of these workshops is that through participation, through these activities, they saw kids connecting with one another from different schools and developing relationships. And of course, with today's technology, many of these students could stay in touch with each other via text and could arrange to socialize on the evenings, over weekends, or during school breaks, holiday breaks. They also found that there was a strong component of friendship that occurred and that these connections, these social connections were huge. We saw students that were in high school becoming big sisters and big brothers to kids in grade one or two, where the younger students were asking them about how they managed teasing, whether or not they played sports, and what they were planning to do after high school.

The most recent workshop that Krista ran took on the format of the TV show "The Amazing Race." So in this workshop, they had 80 students participate. In addition, they had 12 teen mentors. So no parents were part of this workshop due to the fact that this was a scavenger hunt meant to develop self-advocacy skills. So it took place a shopping center in Edmonton, Alberta. And the students were dropped off at the bowling alley in the mall, where they were grouped into different age groups, different modes of communication. And they began the day by bowling. So they had a fun activity before they got to work. Next, the student and educational audiologist and teacher of the deaf facilitators divided the students into teams, and based on their age, were assigned scavenger hunt activities in the spirit of this TV show, "The Amazing Race." So some of the challenges included things like, for the older students, to go to a hair salon and ask if there's a opening for a hair appointment Saturday at 1:00 p.m., and then confirm that appointment, how much that haircut was going to cost, and then move on to the next activity. Also, for the older students, another example was going to the food supermarket, in this case, it was a store called Safeway, and applying for a job. So if they did not know how to apply for a job, they needed to find someone who worked at this grocery store that would facilitate their knowledge on what was needed in getting a job at this particular place. So a lot of these things, these race challenges, were very practical, things that kids were going to encounter in their everyday life, and some of them inside school, some of them outside school. But they all directly pertained to life skills and some of these skills where there may be some uncertainty on whether or not that individual with hearing loss has had the opportunity to practice and develop those things competently. As part of this workshop and self-advocacy, Krista and her colleagues also used the Ida Institute's Living Well tool. So if you're not familiar with the Ida Institute, they are a nonprofit organization whose mandate is to promote the wellness of individuals living with hearing loss. And as a part of that organization, they have many free online resources.

So what they did was discussed how they could facilitate strategies to be used in the classroom to aid in their communication and understanding that would be directly related to their learning. So those were things where they identified things like the use of closed captioning, making sure their FM system was working well, and be your own boss, making sure that you're always letting the classroom teacher know when you're hearing well and when you're not hearing well. Some of their take-home products included things like some posters with messages around communication. We see here that one superhero is telling Superman to always maintain eye contact. Another strategy was for them to make up a pamphlet about themselves that they could give to their classroom teacher at the start of the year. So this student said, "You know, I'm a person with a variety of interests. "And hey, I've got hearing loss. "But what I want you to know is I love cheerleading. "I love to play the clarinet. "I'm excited to be in grade 10. "But there's some things that you can do "to really help with my hearing in the classroom." So this was the pamphlet that she made to give to the teacher at the start of the year that served as a information piece on how the teacher could best support them in the classroom environment. So onto Carrie's work, and Carrie had two programs in Ohio that she was running. One was called Hit It! and the other was called campUS. So Hit It! was a program where they developed a mentorship workshop that they offered three times a year, where teens and children with hearing loss could come together and talk about what it was like to live with hearing loss and go to school with peers who have typical hearing. The goals of their program was to allow students to learn about their hearing loss and their how it affects communication at school, home, and work, to gain solutions about how to become a good self-advocate, to meet other students who have hearing loss. As we know, many students are the only one in their school, sometimes, that wear hearing devices. So to have an opportunity for them to connect with one another is crucial. And to learn about new technology and trends in the area of amplification and things that might actually help them and promote independence at home, school, and in the future when they're at work.

They also wanted to make sure that they understood some of the policy and laws that related to hearing loss and their learning. They wanted to make sure that they had opportunities to develop their leadership skills, as this was something they identified and wanted to communicate as being important in seeking future employment, going to college or university, and pursuing financial aid or scholarships. And just like Krista's program, they wanted to make that this was all occurring in a nonthreatening environment, where all students had a voice and where they could interact freely with one another. Much like Krista's program, they did develop some tools that they could share with their classroom teachers. So for example, they made up pamphlets that said, "A Terrific Teacher does this "for a child with hearing loss." And they would identify things around, strategies that helped improve their understanding of spoken language in the classroom. So a Terrific Teacher does face the student when talking. They do not forget to wear the FM system. The teacher does recognize me as being an important member of the classroom. And there was an opportunity for them to fill out and make a pamphlet about themselves. So again, that they could have this tool to present to the classroom teacher at the start of every year, and this could give the classroom teacher some information about themselves but also to serve as a conversation starter or as an icebreaker to engage with each other about what their possible needs might be in the classroom. The other program that Carrie has been running very successfully is called campUS, which is being held at Ohio State University. So this is a program where students who are in grade 10 and 11 are invited to go spend an overnight trip at Ohio State University. The purpose is really for them to engage with other students with hearing loss. But it's also really to be familiarized with a college or a university environment. So for example, they will go to a lecture theater or a typical university classroom, where they may view and identify, discuss possible barriers to good listening in that particular space. So this is something that has been very powerful to help students think about how they might overcome communication obstacles in this more formalized learning environment. Okay. It does also include an opportunity for parents to join in so parents can learn about dorm life for their student with hearing loss, their child with hearing loss, what types of services are available to support them, and what type of strategies are available, or networking opportunities, prior to the start of the academic year.

So this really prepared us to develop our formalized program. And we identified things that we believe are going to be very, very important as we move to formalizing and developing this mentorship model that could be distributed to school-based professionals around the world. First, we needed to know what outcomes we wanted to measure. We have already identified, in the research and in the survey, what possible barriers there are to implementation. One of the things that was not mentioned in the literature but also important is sustainability. So we do know that for these programs to be successful, there needs to be a method to ensure that they can occur over time, year after year. In other words, we do not wanna spend a lot of resources implementing this model only to find that funding is pulled and this program no longer can exist. So as Carrie Spangler said, that acceptance of hearing loss is a process that it continues over time. And students are going to revisit this acceptance repeatedly, especially during their experiences at school. So we wanna make sure that any model we do create does address the flexibility of differing student needs and that there is a mechanism built in so that it is sustainable. So what we've done so far, of course, is the survey. We've done the literature review. And we've presented this work at the educational audiology meeting in Denver this past summer. And at that meeting, we had some opportunity to have school-based hearing professionals give us some feedback on this work. And so, thanks to them, we believe we have all of the information to move forward in the development of our model. So what we are doing now is we are working to validate all of this data to create a template model for a teen and child mentorship program that could be implemented in school districts around the world. Our plan is, is once this model is complete, that we take it out to the field to a couple of school districts and we essentially do a pilot to ensure that all of the steps in the pathway are provided and that this type of a model or mentorship program can be implemented quite easily and that all of the background work has been done to make sure that this transition of introducing such a program is very, very smooth.

So we have begun this project, as I just mentioned, and we hope to finalize the model by this coming summer, so July 2020, so that in September of 2020, we will be ready to actually go out and pilot this project and test its ability to be implemented in a very efficient way. So I'd like to thank you very much for your time today and hearing about our program. Hopefully, you find this information useful and exciting. And we're certainly excited about it. And now I believe we have a few minutes for questions. If you do have a question, please go ahead and type it into the Chat box, and then I will go ahead and read that out. One of the things I should mention as well is that we will be working on publishing our work to date, and so you can look for that coming out in the spring, which will be, that publication will be a little bit deeper dive into some of that data from the survey as well as a more comprehensive overview of the literature. So just as a reminder, PEAK is our acronym for the work that we are doing. And it stands for Programs for Education, Advocacy, and Knowledge for students who are deaf or hard of hearing. Okay, well, we have a question from the group regarding self-determination. Do you consider competency and self-efficacy the same? So I'll repeat that again. Regarding self-determination, do you consider competency and self-efficacy the same thing. And I would say, those two constructs definitely live in the same neighborhood, but they are slightly different. So competency is really more about having the knowledge of why you have hearing loss, why you wear hearing aids, perhaps being able to explain to someone to explain to someone how you got hearing loss, having all of those different sets of words and phrases and vocabulary that really speak to everything about you related to hearing loss. Self-efficacy really is about confidence or feelings of self-efficaciousness. So for example, one of the projects we're currently looking at as part of the KIPA group, which is a research group pf pediatric audiologists, is how self-efficacious or confident do children with hearing loss feel in their favorite listening environments?

So while competency is speaking to an understanding of why they have hearing loss or why they use a hearing device and being able to share that information with others, self-efficacy is really about that feeling of being confident that you can perform or behave in a way that makes you feel very, very sure of the outcome. So one of the things that we're doing with this work is looking at, as I said, favorite or important listening environments of students with hearing loss. So one of those environments might be going to Starbucks with my friends after school, and what is it that might promote feelings of confidence or self-efficaciousness for that individual with hearing loss? Is that having some coaching by a mentor to say, "Look, it's gonna be really noisy in there. "Try and seat yourself in a corner "where you can face all of your friends "so that you're not having to turn your head "to read lips or take advantage of nonverbal cues." It could be the use of technology. Technology may increase self-efficaciousness. So for example, does using OpenSound Navigator, this advanced sound processing in Oticon hearing aids, promote better listening in noise, therefore making me feel more sure that I'm understanding what my friends are saying to me while we're having coffee? So hopefully, that clarifies that difference between self-efficacy and competency. But certainly, it is a new area that I'm really interested in is, what makes students with hearing loss feel more confident in their listening environments? Well, thank you very much, again, for your time today. I appreciate you coming. And my email is on the screen. So if you do have any questions, you're most welcome to email me. And I wish you all a great rest of the day. Take care.

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