

Preschool Curriculum Consumer Report

Gail Joseph: Well, welcome. It is the fourth Monday of the month, and this means it is time to welcome you to the Front Porch Series from the National Center on Quality Teaching and Learning. I'm Gail Joseph, and I'm co-director of the National Center on Quality Teaching and Learning. And for those of you just joining us for the first time, the Front Porch Series is a collection of broadcast conference calls that take place on the fourth Monday of every month unless there's a holiday. And we really do these just to gather around to hear a national expert on a topic related to quality teaching and learning in young children. So, on behalf of my colleagues and I at NCQTL, I'd like to welcome all of you to our broadcast call today.

So, before I turn it over to our fabulous guest speaker, let me just give you some context. At the National Center on Quality Teaching and Learning, we have a Framework for Effective Practice, and that's what you see on your screen right now. We call it the house framework, as you can imagine why. And hopefully, it's familiar to all of you today. But what I want to say is that today we're focusing in on that yellow pillar, which is research-based curricula and teaching practices. So, this presentation today will provide an overview of the NCQTL's Preschool Curriculum Consumer Report, is what we're calling it. We will present information to really help Head Start programs use the report to guide decisions about their classroom curriculum. So, it's important to just really focus in on kind of the criteria used to review the curriculum, because that could help you make some -- ask yourself questions and make some decisions about curricula that you might be using and adopting.

So, the report reviews 14 comprehensive curricula on components such as research evidence, breadth and depth of coverage. And of course our speaker will talk more about that. But I also want to say that we realize that the 14 featured in the report did not reflect all that are out there, and we do anticipate an addendum to include some more widely used curricula. So, I know there will be some questions out there about what was included and what wasn't. But also just be rest assured that there will be some more information coming. So, let me introduce today's speaker.

It is not a stranger to us, thankfully, because we love her. It's Dr. Bridget Hamre. She is one of our collaborators on NCQTL, a huge part of NCQTL. She's an associate research professor and associate director of the University of Virginia's Center for Advanced Study of Teaching and Learning, otherwise known as CASTL.

And her areas of expertise include student-teacher relationships and classroom processes that promote positive academic and social development for young children. She has authored numerous things, some of which I'm sure you're very familiar with, but she's also authored numerous peer reviewed manuscripts that document the ways in which teacher-child relationships and teacher's social and instructional interactions with children support children's development and learning. And we really focus here on closing that achievement gap for students at risk of school failure. So, without further ado, I'm going to turn it over to our featured speaker, Dr. Bridget Hamre.

Bridget Hamre: Thanks, so much, Gail. I'm so happy to be here today and talking to you about something we've been working on at NCQTL for the past couple of years, and that is, as Gail said, a review of comprehensive curricula that are available to Head Start programs and other early learning programs across the country. I'm going to give you an overview of the Curriculum Consumer Report and how it can be used by Head Start programs. And in particular, we'll spend just a moment defining what we mean by comprehensive curricula, because people use that word, "comprehensive," to mean different things. I'll also talk a little bit about the process that we went through to review the 14 curricula that Gail mentioned. I'll give a summary of some of the findings in the report, but I will also make sure that you all know where the report lives so that you can look at it in much more rich detail in your own programs. And I will talk about some of the uses for this document as well as some of the limitations.

So, first, just in case you're interested in following along as we're talking, I want to make sure you know where you can find this document. So, on the ECLKC NCQTL website, which you can find just by searching NCQTL, you'll see a green bar. And if you click on "effective practice," then you will see that house that Gail was just referring to. And if you click on the column that says "research-based curricula and teaching practices," that's where you'll find this as well as other resources related to choosing a preschool curricula. So, there is a PDF of the report that can be printed out there. And in addition, although we can't watch it today, I do want to point you to the fact that there is also an introductory video available. It's just about three or four minutes and provides a nice overview and might be something that you'd want to share with others in your program to give you a sense of the kind of information that's included in the report.

So, let's just start out by talking just a moment about what we mean by a comprehensive curriculum. First, we want to make sure we have a shared understanding of what a curriculum is. And here we drew from the Head Start Program Performance Standards and their definition of a curriculum, which really means that it's a written plan that includes goals for children, specific experiences that are going to achieve those goals, that includes explicit information about what staff and parents can do to achieve those goals, and the materials needed to support the implementation of a curriculum.

So, then we needed to define what we meant by "comprehensive." And for the purpose of this report, we define comprehensive as those curricula that address more than two of the starred domains here in the Head Start Learning Framework. So, we see it needed to include at least three of the four areas of language development, literacy knowledge and skills, math knowledge and skills, and social -- social studies knowledge and skills. Actually, I believe that star just got put in the wrong place, so it needed to also cover social-emotional development. My apologies there.

So, it needed to cover more than two of those domains, but many of the curricula that we reviewed actually cover all or almost all of the domains of the framework. It's also important to say that comprehensive does not mean high-quality. So, as I said earlier, people use the word "comprehensive" in many different ways. And here we really are just referring to curricula that cover multiple domains of development, and it doesn't necessarily mean that these curricula meet categories for high-quality. And in fact, really what the consumer report does is walk through many different criteria that can make a curricula high-quality and provide some evidence about the extent to which the various curricula meet those standards.

So, let me talk just a moment about the process that we went through to review these curricula. First, as Gail said, we needed to select curricula. We wanted to make sure that these were curricula that were designed for preschool-age children. Some of the curricula also have versions for older or younger children, but here we only reviewed the preschool-age materials. They needed to be commercially available. This is important, because sometimes there are research-based curricula that actually can't be purchased by programs, and so that would not be particularly useful for us to review. And we also wanted to make sure that they were being used by a significant number of Head Start programs.

So, according to the PIR data, we didn't review every single curricula that's being used, because there are many, many, but we wanted to make sure to cover any that are used by a significant number of Head Start programs. And as I said, you will see -- or as Gail said, I expect that we will be doing a few additional reviews in coming months. But for now, the report includes a review of these curricula. I won't read them here, but you can just take a moment to look and see which curricula were reviewed. And obviously if you download the report, you'll find many more details about the review process and about each of these curricula.

So, what are the components of an effective curricula? Well, we reviewed the curricula on 13 different components. The first one was the extent to which they were grounded in child development principles. And I'm going to talk about each of these components in more detail, so I just want to go through these quickly now. We rated them on the extent to which they were evidence-based, whether they showed impacts on child outcomes, the extent to which they were comprehensive across the learning domains, the extent to which they showed depth across each of the learning domains, whether or not they had specific learning goals and activities, how well-designed the learning activities themselves were, the extent to which there were supports for responsive teaching...[Pause] -- for culturally and linguistically responsive materials.

We wanted to make sure that they included ongoing assessments, many opportunities for professional development for teachers to actually learn how to use the curricular materials, family involvement -- and family involvement materials. And in just a moment I'll go through each of these in a bit more detail. In terms of the people who conducted the reviews, they all had either a master's degree or a doctoral degree in early childhood education or a related field. And in addition, they needed to have some real-world experience either in research or out in the field in early childhood development or early childhood programs.

So, we had a great bunch of experienced reviewers. But their sort of education experience alone wasn't enough; it was important to go through some very specific training around the components that were reviewed for this report. So, they went through about 10 or 15 hours. And then following that, they all had to calibrate with one of our core raters, one of the folks who actually developed the tool that we use to rate the programs. And they had to achieve a really nice level of agreement prior to actually conducting the reviews.

There was a very detailed scoring rubric that was used as we went through all of the curricular materials, and each reviewer needed to write written justifications for each of the scores that they gave. Those written justifications were important later if there were any discrepancies in scoring. And in addition, as you'll see in the actual report, there are many, many details in the report that sort of back up the scores, and some of those came explicitly from the written justifications the reviewers provided.

Each curricula was reviewed by two independent reviewers. And then there was a third core rater that addressed any discrepancies that came up. And in general, we had very good agreement between the reviewers. It was also important to make sure that publishers had a chance to respond to the review.

So, they were sent the initial set of scores based on our initial review process. And they were asked if they had any response or wanted to submit additional materials that they thought might change the scores. We then reviewed those materials and re-rated any curricula in which the publishers gave us additional information. In all cases, that review process either led to the score staying the same or the score improving. As you'll see as I go throughout this presentation today, and as you'll see in the report itself, the ratings were made on a four-point scale using these stars.

So, moving from no evidence, where we had an empty star, to very solid, high-quality evidence with a full star. All right, so let's just talk a little bit about what we found. And I'm not going to be talking about specific curricula today, but again, there's many, many details about those in the actual report. Instead, I'll try to give you an overview of what we found across the curricula. So, the first component was the extent to which the curricula was grounded in child development principles. Here we looked at the extent to which it was aligned with the Head Start Child Development principles, and obviously it being really important that the activities progress from simple to more complex. That being a really important part of a good curriculum that's going to work for you as you work across an academic year.

Now, I'm going to be showing a lot of these charts for each of the -- each of the components; so, I'll spend just a moment talking through this first one. Here we're just graphing the number of curricula that met each criteria. So, in this case, eight of the 14 curricula that were reviewed had solid high-quality evidence of being grounded in child development. So, in general, the curricula did quite well on this particular component. The second component that we looked at was the extent to which the curricula were evidence-based. Here we were interested in the extent to which they had undergone research that used a rigorous design, whether they had measures of fidelity of implementation. We wanted to make sure that not only were the -- were they studied, but that when they were studied, that we paid attention to the extent to which they were really enacted the way they were supposed to be.

And ideally, studied in more than one sample as well. Now, here we see quite a contrast to the first component when we look. And here we see about 7 of the curricula actually have no evidence, so they really haven't undergone any research, any rigorous research. And only two have either some or high-quality evidence of having undergone -- undergone good high-quality research. So, obviously for those of us in the academic world as well as those of you working in programs, this is concerning, because what it tells us is not enough of these really frequently used curricula have been subjected to study for us to know the extent to which they're really promoting the kinds of outcomes that we want to see for the kids in our Head Start programs.

Importantly, really closely tied to the second component is the extent to which it had effects on child outcomes. So, component two just looked at the extent to which these curricula had been studied, and this third component breaks out and understands the extent to which they actually have an impact on the children in classrooms. So, we pay attention not only to the extent that they do have impacts, but also the size of those impacts. So, we want to make sure that the curricula are leading to meaningful changes in children's development and learning across domains. Unfortunately, again here, this is not a fun thing to look at either. So, we see very, very few of the curricula that are currently used in Head Start programs have evidence from these rigorous research studies of impact on child outcomes.

And again, it's important to acknowledge that this doesn't mean that the curricula that are in the report can't impact child outcomes. The simple case is that many of them just haven't been studied to the degree that we need them to be studied to know whether they have outcomes. And I will say even the one program that received -- the one curricula that received solid high-quality evidence of impact on child outcomes has only demonstrated impact on language and literacy outcomes. So, there's a lot still to be learned about which of these curricula can really impact learning and development.

Now, I want to take a moment here, because this question has come up as folks have been looking at this report, and talk just a moment about the difference between research-based and evidence-based. Often these words are used interchangeably. But I will say for the purpose of our review, research-based are really curricula that are grounded in research in child development and learning, and that really fits with the first component that I talked about earlier. To be evidence-based in our definition, a curricula needed to be evaluated in formal high-quality research studies and demonstrate impact on child outcomes. So, we actually see that many more of these curricula, at least by these definitions, meet the definition of being research-based with fewer meeting the definition of being evidence-based.

Now, probably lots of you are thinking, "Okay, what should I do?" Well, first I want to make sure that we're thinking about these three components together. Ideally we would have curricula that are both grounded in child development principles as well as they actually have evidence that they impact child outcomes. But because as we look across all three of these areas we see so few curricula actually meeting these criteria, I want to just take a moment to think about what else you can do in your programs as you think about this important -- these important components.

The biggest thing is to make sure you're looking for additional evidence. So, while you're waiting for these research studies to come out, what evidence do you have in your own program that students are making adequate progress across the domains of development? So, hopefully all of you are using and collecting data in your programs every day. And understanding how to use these data is really, really important to making decisions about the extent to which your current curricula is meeting your needs. And it's also important to really pay attention to the quality of the evidence you have.

So, what kinds of assessment tools are you using in their program, and do you feel good about the extent to which they do demonstrate impact, so that you can be assured and you can reassure families in your program that the students really are learning and making the progress that they need to make. I wanted to take just a moment to do a plug for one of the other -- our colleagues at some of the other national centers. So, in particular the Program Management and Fiscal Operations Center has produced a lot of nice materials related to data and using data. So, I highlight one in particular here, although I encourage you to get on ECLKC and explore some of the other options. This particular resource is called Digging into Data, and it's a really nice module to sort of walk you through how to be using data in your program and can give you some insight into how you might address these issues of using data to understand and unpack the extent to which your program -- your program's curricula is meeting the needs that you have for your students.

Okay, so let's go on to some of the other components. So, the fourth component looked at the extent to which these curricula were comprehensive across all of the domains in the framework. So, we wanted to look that it covered the majority of domains but also that those learning domains were clearly articulated in activities. So, it wasn't sufficient just for the curriculum to say, oh, we cover all of these areas, but we really wanted to make sure that as we looked at the activities that we saw those domains reflected in the actual activities that teachers would do on a daily basis with children. And that those -- that the majority of activities really integrate the content across these domains.

So, here we see that most of the curricula reviewed have some evidence at least of comprehensiveness across the domains. There were a few who were less comprehensive. And again, as you look into the report, there's a lot of details on each curricula, and you can get more information about the particular curriculum that you're using in your program or curriculum that you might be interested in, to look and see perhaps which of the domains are covered or not covered in that particular program.

Next, component five looked at depth. So, we're not just interested in the fact that it covers many of these areas, but we want to make sure that they're also covered in enough depth to help ensure that children are learning what they need to learn.

So, here we really looked at the sort of more fine-grained parts of the framework. So, we looked -- for example, if we were looking at literacy, we wanted to make sure that the curricula not only covered things like alphabet knowledge, but it also needed to cover book appreciation, phonological awareness, print concepts and conventions, and early writing. So, that's just one example. And as we reviewed each of the curricula, we looked to see the extent to which they covered each of these sort of subcomponents of the domains. So, we wanted them to cover most of the domain elements for each of the domains and also demonstrate that they had an organized scope and sequence for each of the broad domains that would really work children through those different domain elements across a given academic year.

So, here we see most of the curricula did a pretty good job and had either some or high-quality evidence of depth across the learning domains. I do want to just take a moment, though, to remember that having the curriculum on the shelf is not enough to demonstrate learning. And there's a lot more that needs to happen beyond just deciding on a curricula that says it has sufficient breadth and depth. And so, we're going to talk about a few more of the criteria that we used not to necessarily ensure learning but to help provide more evidence that if you take this curricula off the shelf, that it will lead to learning. And in particular we really dug in to the activities and what the activities in each of these curricula looked like to see the extent to which they fostered an environment in which teachers could use these to really teach the kinds of skills that they said they would teach.

So, I'll talk a little bit about some of these components now. So, the sixth component looked at the extent to which the curricula had specific learning goals. So, rather than just saying this activity was focused on literacy, we would want to see that it had a very specific goal related to a very specific skill that was being taught in that particular moment. So, we wanted to see specific, measurable, and developmentally appropriate goals for each activity provided in the curricula and make sure that those were aligned with the broader goals of the curriculum.

And again, that there was a sort of broad scope and sequence for these skills across a given academic year. So, we see some variability here. Very few have very solid high-quality evidence of specific learning goals, so often many of these curricula have too broad. So, they might just say this particular activity is working on literacy rather than being more specific. But they're making adequate progress toward this -- this component of having specific learning goals.

Next, we looked at how well-designed the activities were. And we defined a well-designed activity as being easy to follow, making sure that it had supports for implementation. So, many of the curricula have things like teacher tips that can help ensure that teachers are implementing them the way the developer intended them to be implemented. We wanted to see if there were prompts for using multiple strategies and interactive materials as well as making sure that the purpose of the activity was very clear and a meaningful activity for children to be engaged in.

In general, the curricula did quite well on this, so almost all the curricula having some or high-quality evidence of being well-designed. Beyond the very specifics around how the sort of activities actually look, we're also interested in the extent to which they support responsive teaching. What do we mean by responsive teaching? Well, we expected that high-quality curricula based on research should have a mix of both -- excuse me -- child-focused and teacher-directed activities. So, we know that children learn things in both kinds of environments, times when they might be working in centers, as well as times when they might be working with a teacher in a whole group or a small group. We want to make sure that the curricula offer opportunities for all of those kinds of environments. We wanted to see some differentiation for children's different learning styles as well as how to engage in high-quality teacher-child interactions.

So, many of the things that might get measured by the CLASS, the Classroom Assessment Scoring System, in terms of teachers being responsive, forming positive relationships, engaging students in learning, providing feedback. What we wanted to see was the extent to which some of the scripting or supports for teachers within these activities offered them ideas about how to support these kinds of interactions in the classroom while they were conducting these curricular activities. And we also looked for some specific instructional examples that might give teachers more ideas about how to actually enact these in their classrooms.

So, here we see a mix of curricula having either minimal, some, or some high-quality evidence of responsive teaching. So, another thing that's really important as a support for teachers implementing these curricula well is the extent to which they offer information about how to individualize instruction. Because as we know, all of the children in our classroom don't respond to the same instructional activities in the same way. Some children really need to be pushed because they might be able to achieve more than what's in the sort of base activity, and some children may need to be scaffolded and provided with additional supports to be able to achieve the learning goal that's specified. And high-quality curricula really provide explicit instruction for teachers around how to do this individualization, so it's not just left up for the teacher to decide.

So, we looked for activities to support children at different levels. We looked at the extent to which they had guidelines for adaptation for physical and social-emotional development differences. Really important within our Head Start community. As well as guidelines for adaptation of materials and/or the environment in order to make sure that all children in the classroom could participate and learn in every activity that was provided. Here, very -- really only one of the curricula was rated as having solid high-quality evidence, but the majority of the curricula reviewed did have some evidence of providing these supports for individualized instruction.

So, really I think we'd like to think of these four components of specific learning goals, well-designed learning activities, responsive teaching, and supports for individualized instruction, these are really a deep look at what goes on within the activities, that there's evidence that's going to support that if a teacher is following that curricular lesson, that they're going to be doing a really nice job of implementing that lesson in a way that should support children's learning. So, there's just a few more components that we know are really critical. Particularly within our Head Start community, it's exceptionally important that these curricula are culturally and linguistically responsive.

So, here we looked at the extent to which the materials for use in the classroom and with families were provided in languages other than English. We wanted to make sure that materials were -- presented diversity in terms of culture, ethnicity, gender, et cetera. It's exceptionally important in almost all of our classrooms across the country that there's guidance on assisting dual language learners as well as guidance on adaptations based on cultural and linguistic needs of the classroom.

So, the curricula did a okay job at this, most of them having either minimal or some evidence of cultural and linguistic responsiveness. I will say that earlier, on another webinar, we got a question about the extent to which these curricula are available in other languages, and that was not a component that we reviewed upon, but we will release a frequently asked questions document that has more information, particularly around which of these curricula are available in Spanish. Here, I want to just point to another resource from one of our colleague national centers, the National Center on Cultural and Linguistic Responsiveness.

And hopefully many of you have seen their Multicultural Principles. And I just wanted to draw attention here to principle four, which is addressing cultural relevance in making curricular choices and adaptations is a necessary, developmentally appropriate practice. So, I say that there's lots of resources to read more about what we mean by that, but I think it's really important to know that in many, many programs, there's going to need to be work done. Even if the curricula itself has done a decent job of providing some of these adaptations, most programs may need to do additional supplementation to make sure that they're meeting the needs of the children in their classrooms.

Okay, so then let's look at the extent to which the curricula had ongoing assessments. Obviously, a really critical element of effective curricula. And all of you in Head Start know how important conducting these assessments is and using these assessments to inform instruction. So, the assessments themselves, it was important that those were grounded in solid child development principles, that they were aligned with the learning goals of the curricula, and as well as aligned with the Head Start Child Development Early Learning Framework.

We want the assessments to be easily accessible, user-friendly, efficient to implement, and most importantly, they really need to support interpretation to aid individualization. So, we don't want them just to be assessments for assessments' sake, but we want them to be assessments that are going to help teachers know whether or not each of the children in their classroom is really learning what they should be learning from a particular curricula. Ideally, these assessments themselves also have evidence of validity that they're linked to other more commonly used outcomes. And here we see a mix.

So, almost all of these curricula do have some kind of assessment, but very few met all of our criteria for being solid, high-quality evidence of user-friendly and really meeting the needs of assessment. So, there's some work to be done, but in general there's at least assessments available as a part of most of these curricular programs. All right, so just two more.

The 12th component was the extent to which there were professional development opportunities available. Here we know that, again, just taking the curriculum out of the box, even if it has really well-designed materials and activities, is not sufficient because the curricula themselves are going to be delivered by the adults working in your program. And we know that there's a lot to be done after you make a decision about the curriculum in order to support the effective implementation of that curricula. So, we looked at the extent to which there were comprehensive initial and ongoing trainings available. Some of the curricula only offer one-time initial trainings, but we know that really learning to use a curricula is an ongoing process that takes time.

We want to make sure that that professional development can be individualized. And importantly, that it's available for staff beyond teachers. So, making sure that there are professional development opportunities for folks like ed managers, directors, assistant teachers, other folks working in the program who may need to learn about how to use these curricular materials and assessments. And ideally they'd have multiple modes available.

So, increasingly a number of these curricula even have online training available to make it easier for multiple people within a program to attend. And at the highest end we also looked for the extent to which there was evidence that teachers who participated in this professional development really changed the way they taught in the classroom. And here again we see somewhat of a mix. So, five programs having minimal evidence, six programs having some evidence, and three programs having solid, high-quality evidence of having nice professional development opportunities.

The 13th component, and something near and dear to all of our hearts in Head Start, is the extent to which they support family involvement materials. Here we looked at the extent to which materials for distribution to families -- there were materials for distribution to families that review what children are learning. We wanted to make sure that there were strategies for families to extend learning in their home environments. Guidance to link the learning goals to what was happening in the homes. We wanted to make sure there were suggestions for how to incorporate families in the classroom.

Many of you do a great job at bringing families into the classroom, and it's important for our curricula to support this bringing of families into our classroom walls. Ideally there were suggestions for establishing and maintaining positive relationships with families, as well as materials for families to support learning across the domains. And here actually most of the curricula did a nice job having at least some evidence of having family involvement materials. And I expect the fact that all of the publishers have included this actually is a reaction to the Head Start community knowing how important that is to those of you working in Head Start programs across the country. Okay, so those are the components that were reviewed. But I want to just take a moment to comment on how this can actually be useful in your programs.

First, it's really important to recognize that none of these curricula are perfect. None of them received the high-quality evidence across all indicators, or across all the components. And so, really what's important is for you to think about your program, think about the data you have from your program, the particular needs you have within your community, and look at the components, see which of those seem to be most important to you, and think about the extent to which the curricula that you're currently using may be matched to your needs. And so I just again want to emphasize we certainly do not mean for folks to pick this thing up and just count the number of stars and for everybody to switch to using the curricula that has the most stars. That's not at all the intention.

The intention really is just to provide information. That's why we called it a consumer report. You all are the consumers. And just to provide you useful information that you can use in addition to the information you have from your own data and your own programs as you're making decisions. I also wanted to make sure that you realize on that same page that I pointed you to earlier where you can find this report, there's a number of other resources that might be helpful as you're thinking about the curriculum in your program.

And so, I just point to a few of them here. They all have these very long URLs. But if you just go to that same section that I pointed you to earlier, you will find them there. And there's actually links to these in the report as well. So, I want to talk just a moment -- and I've been saying this really throughout, but I think it's just so critical to say, that the selection of a curricula is really only the first step, and it really needs to be a process of ongoing implementation. Initial training, ongoing training, the enhancements that you need to make to make sure that you're meeting the needs of your particular students.

So, oftentimes people need to supplement with books and materials that better reflect the children within their classrooms, for example. And they also need to make sure that this curricula gets integrated into other things that are going on. So, many -- because I've done so much work on interactions and environment and particularly around the CLASS, I've seen lots of folks, for example, look at their curricula and look at the extent to which their curricula is supporting particular elements of effective teacher-child interactions and make sure that they're supplementing for areas that may not be as well covered. And we also need to make sure that this is a process of ongoing program evaluation and improvement planning. So, it's not sufficient to say, okay, well, we selected our curricula, and now we're going to use that for the next 10 or 15 years. But we want to really re-evaluate every year and see the extent to which this curricula seems to be working within our own programs.

All right, so let's talk about a few limitations. The first is, as I pointed out, these were just comprehensive curricula that were reviewed. And I want to make sure that you know that we don't think that a comprehensive curricula is the only solution for Head Start programs. In fact, many, many programs have realized that in order to meet the needs of the students within their classroom across the various domains, there's really a need to supplement -- even very good comprehensive curricula may need to be supplemented by some domain-specific curricula.

So, in particular, over the last year, we've been working on reviews of domain-specific curricula in the areas of language and literacy, social-emotional development, and math. And so hopefully those will be coming out in the near future and will give programs a lot more rich information about ways to enhance the outcomes of their children across these domains. As we see in case studies and traveling throughout the country, some of the best programs use a comprehensive curricula as the base. That gives them the base for their teachers in terms of what they're doing on a daily basis and a scope and sequence of activities that lay out a given, you know, weeks and months and years. But that they also then will look at particular areas. So, they may have looked at their data and really found, for example, that for whatever reason, even if their comprehensive curricula says it's covering math, that they're not really achieving the kind of math outcomes that they want to achieve.

And in that case, they may be supplementing with a curricula that really focuses on math. And I will say, just to give you a highlight of some of those reviews that are ongoing, there are certainly more research evidence and -- or I should say more effectiveness evidence for some of these domain-specific curricula. So, more of these curricula that focus on language and literacy, social-emotional development, and math have been studied in rigorous evaluation studies, and more of them actually demonstrate impacts on child outcomes. So, more to come in that area.

In addition, it's important to acknowledge that curricula are constantly changing. So, these curricular reviews process started several years ago. And so the curricula that were reviewed are clearly marked within the report so you'd know what it is we reviewed, but it is possible that some of the curricula have added, adjusted, or changed or supplemented their materials since the time of the review. And it's also important to say that there's new research happening all the time.

So, as best as we can, we will be providing updates to these materials, but it's important for you, too, to be good consumers of research and to be looking at what the research evidence says about some of these curricula. It's also important to say that there are many other factors that need to be considered. So, cost is certainly a factor that needs to be considered. What materials you may already have available needs to be considered. And we do provide some information about things such as cost, both the cost of the materials as well as the cost of the training, when they were provided to us by the publisher, but we just wanted to recognize that there's lots of things for you all to be thinking about as you're making decisions about curricula in your own program.

And again, you know, many of you may not have had time to review this, but I encourage you to download it and read through it in more detail. NCQTL is also making sure that the ECE specialist, your T/TA network, have lots of additional information and ways to support you in using this document within your programs in the upcoming months.

Gail: So, thank you so much, Bridget. That was such a thorough review of what you've done. And thanks again, Bridget, for spending your morning/afternoon with us.

Bridget: Great. Thanks, everybody. Have a lovely day.