ACR 190 draft

📖 Tue, Nov 07, 2023 12:45PM   🕐 25:05

SPEAKERS

Veronica

Welcome to the Autism Classroom Resources Podcast, the podcast for special educators who are looking for personal and professional development. I'm your host Dr. Christine Reeve. For more than 20 years, I've worn lots of hats in special education. But my real love is helping special educators like you. This podcast will give you tips and ways to implement research based practices in a practical way in your classroom, to make your job easier and more effective.

Welcome back to the Autism Classroom Resources Podcast. I'm Chris Reeve and I'm your host. And we're in the midst of a series looking at how we take all those elements of instruction that I talked about in episodes 180 through 186. And we put them together into specific kinds of intervention.

I've talked about things like how we get directions and break down skills. And if you've missed any of those episodes, you can grab them by going to autismclassroomresources.com/episode180 or 182, etc. And last week, I talked about discrete trial training in episode 189.

So today, I want to talk about kind of the flip side of that, about how using these same elements of good instruction in naturalistic contexts can also have a huge impact on our students with autism. Specifically, I'm going to talk about naturalistic developmental behavioral interventions or NDBI.

Now, these are interventions that are based on the principles of ABA, but they incorporate principles from a wide variety of fields, including speech pathology, and developmental psychology, and developmental psychopathology. They are implemented with some significant differences from Discrete trials. And that's what we're going to cover today. I'm going to talk a little bit more about them as a selection of tools rather than the individual tools, the way I did with Discrete trials. So let's get started.

Let's start with what are naturalistic developmental behavioral interventions. As I mentioned, they are derived from ABA and developmental psychology. In the 1980s, which happens to be when I started my grad school journey, there was an offshoot of developmental psychology to include developmental psychopathology. Instead of just looking at the typical milestones, it started looking and understanding a typical development in children. And that dawned a very powerful set of literature, beginning to recognize where autism development and typically developing children differed.

Now, if you listen to last week's episode about Discrete trials, you didn't really hear me talk about what skills you teach or things like that. They weren't really grounded in the early days in early intervention principles. Basically, because we didn't have any early intervention principles back then. But also because they really didn't take into account the developmental component.

So developmental psychopathology looked at recognizing where autism development and typically developing children differ. And that allowed us to really begin to talk about some of the key markers that we all now know as deficits in immitation, difficulty orienting to others in a social manner, social or affect reciprocity, or responding to emotional cues. Those are elements that we now recognize as being key elements in a diagnosis of autism. But back in the early days, our knowledge wasn't that skilled. We weren't getting down to the level of this really young kids and those really specific pivotal behaviors.

So what are and NDBI? Researchers started to look at family videos of early childhood of children who had been diagnosed with ASD. And because of that, we began to have a better understanding of the impact of ASD on a child's development, and how that identified some very early precursors that are linked to socialization and communication.

Two of those Hallmark areas for an autism diagnosis are socialization and communication. So this brought together the integration of developmental Psych and science and behavioral science or ABA. And simultaneously, because we had more research on what made up the characteristics of autism as children were younger and we had better technology.

We also began to diagnose autism earlier and earlier, and we have technology now that can begin to screen children in infant and toddler stages very effectively, more effectively than their pediatricians who are evaluating using screening tools. And Geraldine Dawson and her people at Duke University have been working on that. And it's really, really exciting.

When I was first starting out in the field, I often got criticized for identifying three year olds in the early 90s. Now, we would be criticized for not diagnosing a child that young and younger, because we know the significance, significant importance of intervening as early as possible. People used to tell me you can't tell he has autism at this age. I said Yeah, I can. I've seen a lot of them. And I was back in my days when I was working as a master's level psychologist and working on my internship.

So I think it's really important to recognize and now we know so much more than we knew that. Now, the core of NDBIs focuses on three specific areas. Choosing learning targets that are occurring in the child's everyday life, and that are developmental in nature and scope. Discrete trials is a teaching tool that you can use to teach a lot of different things.

The early early intervention strategies or programs that it was part of would choose interventions, and you may use it as part of a verbal behavior program, using an ABLLS or a VB-MAPP two very common behavioral interventions, those are now loosely grounded in developmental psychology and developmental understanding. And that's important to know, because back in the 1980s, it wasn't necessarily grounded in that that was one of the big criticisms about it.

So one of the things that NDBIs include as part of their scope is that we are looking at things that are part of their everyday life. Because teaching students in their natural environments, and including families as teachers, is another element that all the developmental interventions have in common. And setting up teaching strategies that are focused on following the child's lead, creating natural opportunities to practice the skill and get reinforced by functional reinforcers, is the third element that is really critical.

So I want to look at each of these in a little bit more detail, to give you some understanding of exactly what it means. So when we think of choosing our learning targets, natural developmental behavioral interventions, choose their targets for remediating errors that are problematic in development for students with autism. So it focuses on skills that a child that is that child's age and neuro typically developing, what would they be doing at this time, and they're teaching them to use it in their everyday environment.

Now you may have heard me talk in the past about the need to choose vocabulary that focuses on teaching based on the vocabulary and the items that the student encounters every day. In other words, if I'm working with a three year old, I'm going to work on recognizing and naming their toys, their jacket, their shoes, their family members, rather than having my picture card box, or a checklist of some kind with a bunch of words, tell me what words I should be teaching.

I don't want it to be governed by what pictures people happen to put in my vocabulary Picture Box. Instead, I want to make sure that I'm using words that the student is going to encounter in their everyday life, because that's going to give them more practice, those are going to be more meaningful, they're going to be more reinforcing, and they're going to work on more socialization and incur more interaction. And that is a key element of intervention for autism in the early years.

So in other words, if a child has a dog or a cat at home, I would probably teach dog or cat, probably with a picture starting with a picture of their dog or cat or their actual dog or cat, because we would be in their natural environment. And later, I would expand that to finding other dogs and cats when we went on walks outside or looked at pictures and books and things like that.

I wouldn't be teaching them giraffe and gazelle, or an elephant, just because I have pictures of those. I also wouldn't be looking at probably teaching cow, horse, and chicken, if they don't live on a farm or in a place where they might have those things. If they live in a city where they don't see those every day, that's not going to be the focus because that's not part of their everyday life.

Even though those are very common themes in early childhood, like preschool programs talk a lot about farm animals, they aren't items that the child is likely to come into contact with every day. And it's not going to be something that they're really going to practice in their natural environment. It doesn't improve his everyday functioning and it's not meaningful, so it doesn't move the needle forward. And we can get to all of those other things later. Because I'm not saying we're never going to teach those things, but we want to start with the things that are relevant to their everyday life.

If you remember, last week, when I talked about Discrete trials, I talked about how we need to make sure that we reach the point of generalizing students skills, once they've learned things in Discrete trials. In naturalistic interventions, were focused on teaching the skills in the environments and the situations where they will initially be used. And our earlier research on incidental teaching showed that students learning with incidental teaching, which is one of the naturalistic interventions, children learning the same skills with that strategy made similar gains than if we use Discrete trials, and then had to generalize the skill on top of it.

Number two, skills are taught within the typical scope of the child's experience. And what that means is that we aren't teaching skills discreetly with a student in isolation. Instead, we're teaching them in integration with their natural interactions and daily routines with multiple people and multiple materials. So this essentially means that we're integrating generalization in at the start.

So children who learned a skill with Discrete trials may have mastered it, and I say that with quotation marks around it, more quickly than they did when they were taught a similar skill with incidental teaching. But when we looked at generalization and whether or not they could use that skill in their environment, on an everyday basis, the students have had about the same instructional time to master it with that criteria.

So students using discrete trial may master a skill faster but then need generalization added on. Students using incidental teaching may take longer to master it. But when it is mastered, it is also generalized. So in other words, the time is pretty much the same. It's just a matter of how you want to program your instruction.

In addition, NDBIs focus on specific skills that are shown to be pivotal. And I use that word because one of the types of naturalistic interventions is pivotal response training, which is based specifically on that element. It's looking at skills that are pivotal to children with autism development. And they're

pivotal in the sense that they open doors for more skills.

So let's take joint attention just as an example. The use of eye gaze, gestures, and language to share events and experiences with others is what joint attention is. It's the typical two or three year old, who points at the airplane in the sky and looks at his mom and says, plane, and then looks back at the airplane. He's getting her attention, and they're sharing a moment, in a sense.

So sharing those experiences and events with others is a pivotal skill that many students with autism or most students with autism, don't have. But it is a skill that engender that that encourages a ton more interaction from the person around them, to engage them in more interaction. It's a pivotal skill once they begin to develop it, because it leads to more social interaction, more sharing of experiences, and ultimately, that means more opportunities to learn. Because it shares their learning with someone else, it initiates with other people, which gets more interaction from those people. So it starts recruiting the child recruiting their own learning, instead of waiting for someone to come and present the direction to them.

Imitation is another pivotal critical tool. Being able to imitate others means that you learn by watching your environment and doing what others do. Think about how much we all do that. So often, you go into a new social environment, you're not really sure how you should act so you look the people around them. This is a very typical skill for neurotypical kids and all of us, we all learn that way. So that is another pivotal skill that they focus on.

Natural behavioral interventions also set up teaching strategies that are focused on following the child's lead, creating natural opportunities for practicing skills, and get reinforced by functional reinforcers. So let me break this part down just a little bit more. That means that typically, NDBIs are creating opportunities that are similar To those that occur in the child's everyday environment. We aren't teaching skills in isolation.

So if I'm teaching play skills to a preschooler, we're teaching it within the kitchen or other play areas of the classroom. I'm not pulling the play materials into a separate area and teaching them with just me. I'm doing it in the environment where they're going to use it.

In addition, if we're using the language that's relevant for that context, the materials that are relevant for that context, they're learning that skill in the place where they need to use it. It expands where we're teaching. And it's also one of the reasons why I don't typically have an activity on a classroom schedule that's called IEP time. Because skills that we're working on with students with autism, and also many of our students with developmental disabilities and delays, need to be taught throughout the day, in order for them to be used throughout the day. Our students need to generalize these skills.

So Discrete trials may be part of our program. But I can't imagine making it all of our program at this

So Discrete trials may be part of our program. But I can't imagine making it all of our program at this stage, given what we know. We need to create natural opportunities for our students to communicate, or name something. So when we're out on a walk, and I see a red rose, we use it as a time to practice finding the things that red or labeling something that's red.

More specifically and even more importantly, we're creating opportunities based on what the student shows their interest in. So this is recruiting their motivation to work for what we want them to learn rather than us deciding what the reinforcer is. So if we're teaching play skills, we're going to use the materials he picks, not the ones that we decide and made our lesson around. It does require more thinking on our feet but it teaches it in a more naturalistic situation. That means we have to be flexible. And we have to be ready for that.

Another element of this characteristic is one that for many of you, you probably already do this. But it relates to using functional reinforcers. Now, functional reinforcers mean that the student is reinforced by the natural outcome of the skill or behavior that they just demonstrated.

Now, ultimately, this does mean that when a student does a math problem right, we want the outcome to be, good job, you got it right, you got 100 on your test. We want that outcome to be reinforcement, not all of our students are starting, there, clearly.

So for instance, when we're teaching a student name an item, when they name it, they get it. So naturally, we're going to start by naming the items that are most reinforcing for them. So in the early days, or at least, I hope people are no longer doing this. In the early days, we might teach a skill discreetly, and that meant that we could teach them for instance, to name a shoe, and they would get a cookie when they named it correctly. That doesn't make a lot of sense. But more importantly, I wouldn't teach a student to say I want to go outside, and then give him an m&m instead of letting him go outside. That's a real life example that I've seen Discrete trials do in the past.

So you want to be careful if you're using Discrete trials, that you are using them in a way that is going to promote itself outside that discrete trial area. Because that kind of example, may not even make sense to you guys, but it is something that we used to do and it is an important distinction between these two areas of intervention.

So those are the overall characteristics of all naturalistic developmental behavioral interventions. There are a number of specific interventions that are part of this family. They include things like incidental teaching, milieu teaching, pivotal response training, the early start Denver model, reciprocal imitation training, social communication, emotional regulation, transactional support, which is known as SCERTS, the joint attention, symbolic play engagement and regulation, which is known as Jasper.

And there are more and though they are just ways of taking these same strategies and integrating

them into a system or curriculum. And there's excellent research that shows that this type of early intervention can be as effective as discrete trial programs for children with ASD. And that we can integrate it into home routines and families can provide intervention, which for young children in particular expands the rate at which they're going to learn because they have more opportunities to learn across their day.

At this time, we have research for a variety of evidence based practices that include Discrete trials is an effective intervention as well as NDBIs. DTT tends to be more recognized for early intervention, in part only because insurance companies have been slow to cover NDBIs, but they cover discrete trial training. And there are a lot of reasons for that.

Not all of which are related to the science and some of which is related to timing. Discrete trials was really our first early intervention, it was easy to do a randomized controlled study for it, and compare it to what we normally do. If the state of the art is to do 40 hours of discrete trial training. How do we have a control group for NDBIs? So those kinds of things.

What we still lack at this point, and researchers like Dr. Laura Schreibman among others, are really working on trying to figure out which children with ASD learn best, and make the most of their progress using what kind of intervention. And at this point, we don't know a lot about this. We know that we have students that make progress with each of these. We also know that we have students that do not make progress with any of these. So we still have students that we are not reaching, we have made progress, but we've certainly not mastered everything we need to know.

So I've covered in some of the past episodes recently, as I said, good instruction is good instruction. And the elements of instruction, that power and NDBI interventions are the same that power Discrete trials and more academic kinds of instruction. The difference comes in those three elements that I just reviewed, which is how the elements are deployed within the teaching day and within the teaching and instruction.

So overall, I would say that we need to have variety of tools in our toolbox. Because I know those of you working in special ed have a variety of students in your classroom. We need to be able to serve that multiple diverse need of all of our different students. There's no reason why you wouldn't have a combination of naturalistic instruction strategies, and maybe more discrete types of instruction, particularly as students get older.

And that's one of the reasons that I actually developed the teaching implementation plan, because it helps to attach skills to specific intervention strategies, as well as identify the activities that are going to be most fitting to those skills. It recognizes that not all of our skills are going to be taught in Discrete trials, and maybe not all of our skills are going to be taught in a naturalistic situation.

And I'll put a link to some episodes that I have on the TIP here as well, if you're interested in that. If

you're looking for ways to integrate more naturalistic instruction into your day, one way to do this is using games like I Spy. For students with limited joint attention, for instance, I often will start with pictures, which are a little easier to call attention to, and work on finding and calling attention to items in the picture. And then we move on to more naturalistic type bigger parts of the room to play I spy.

And you can grab a free fall scene where I have identified common targets giving you ideas of questions and strategies in the Free Resource Library. I also have a couple of toolkits for this in my store, which I will link in the show notes as well. I developed the eye spy activities initially as a learning tool for distance learning during COVID, but you can really integrate it into your instructional environment in the classroom in a morning meeting activity, or in a small group or a one to one session. You can use it as a starting point, and then move from using the pictures to doing that same activity out on walks or out around the play area, or other naturalistic instruction environments.

I hope that this gave you a good understanding of what goes into naturalistic developmental behavioral interventions. I will be back again next week and talking about some different specific life skills instructional strategies that we can use.

If you enjoyed this podcast, I really would appreciate it if you would go over to Apple podcasts and leave a review about your thoughts about the podcasts that helps me to reach more people and share more information with teachers and get essentially a little bit more training out there, I hope.

So I will be back again next week with a new episode and I'll talk to you soon.

Thanks so much for listening to today's episode of the Autism Classroom Resources podcast. For even more support, you can access free materials, webinars and Video Tips inside my free resource library. Sign up at autismclassroomresources.com/free. That's F-R-E-E or click the link in the show notes to join the free library today. I'll catch you again next week.