



Promoting Conversational Skills: Scripting, Mapping and Social Reciprocity

A webinar presented by Dr. Mary McDonald and Kathleen Cutrone on June 9, 2026.

Kimberly Ha

Before we begin, I'd like to share a brief update regarding today's program. Unfortunately, Dr. Mary McDonald has experienced a personal conflict and is no longer able to join us. With that said, we're incredibly grateful that her wonderful colleague has graciously agreed to step in and present on her behalf.

So we appreciate your understanding, and we're delighted to have her join us today.

So I'm pleased to introduce our speaker, Kathleen Cutrone.

Kathleen Cutrone is a board-certified behavior analyst and licensed behavior analyst since 2018.

She has dedicated the past 10 years working at the clinic at Eden 2 Programs, where she has provided assessments, intervention, and support services to individuals with autism spectrum disorder.

She's also worked in clients' homes, providing behavioral support and parent training.

Her professional interests include transition planning, skill development, interdisciplinary collaboration, and improving outcomes for individuals across a lifespan.

With that, I'll turn it over to you, Katie.

Kathleen Cutrone

00:03:06

So, thank you so much for that introduction and thank you all for being here today. I am excited to be presenting on this topic and appreciate the opportunity to step in for Dr. McDonald. While I certainly wish she could be here with us today, I am looking forward to sharing some of the work and research related to promoting conversation skills in individuals with autism. Throughout my career, I had the privilege of working with many individuals across a wide range of ages and communication abilities.

One of the most common concerns expressed by families, educators, and clinicians is how to help individuals move beyond the basic communication and develop more meaningful conversations with others.

Today, we'll discuss practical, evidence-based strategies, including scripts, semantic mapping, and social reciprocity approaches that can help support conversational development in individuals with autism. My hope, and Dr. McDonald's hope, is that you'll leave with ideas that you can apply in your own settings, and with greater appreciation



for the complexity of conversation and the many ways we support its growth. So, thank you again for joining us, and let's get started.

Now, communication difficulties are a core characteristic of autism spectrum disorder. While many individuals can make requests, answer questions, participate in reciprocal conversation, really requires a much broader set of skills. So that includes initiating conversation, responding, remaining on topics, taking turns and inter... Okay, we're off to a great start. Interpreting social cues.

So today, we will discuss those three strategies for promoting conversation skills. Scripts, semantic mapping, and the social reciprocity strategies.

We review the research behind these approaches, discuss practical applications, and explore the strengths and limitations of each intervention to help support more meaningful conversations for our individuals with ASD.

So, these were the objectives for today. You'll be able to identify several articles depicting the use of scripts to increase conversations, identify potential strengths and limitation of scripts, potential strengths and limitations of semantic maps, and then also identify the use of social reciprocity in conversational programs.

So, as we know, many individuals with ASD experience significant challenges with conversation skills. These difficulties can be seen across a wider range of communication abilities, from individuals who are just beginning to develop language, to those who have strong vocabularies, but still continue to struggle with that social aspect of communication.

At the more basic levels, individuals may have difficulty initiating interactions, responding to others, and sustaining even short exchanges. As language becomes more advanced, challenges may include staying on topic, or staying on a preferred topic.

Asking relevant questions, talking, and taking turns, and understanding another person's perspective. Also, what a lot of our individuals with autism struggle with is knowing how to appropriately enter and exit a conversation. While communication abilities vary greatly among individuals with autism, conversation often remains in an area that requires direct instruction and ongoing support.

Simply having language does not always translate to being able to engage in those meaningful reciprocal social interactions. Today, we will explore the several strategies designed to help individuals build stronger communication skills.

When we talk about a conversation, it's important to recognize it's a highly complex skill, made up of many similar and smaller components. So, individuals may be successful in one area while continuing to struggle in another. So, interventions and teaching needs to be specific to the particular skill that is being targeted.

So, when we look at the complexity of conversation, it's not just that reciprocal or those exchanges that sometimes we're seen to target, right? It's quality versus quantity. It's not how much a person's talking, or how frequently a person is going to talk, but the interaction may be socially meaningful or reciprocal.



We want to focus on the quality of exchange, like sharing ideas, responding appropriately to others, and engaging in that back-and-forth interaction, not just responding.

Initiation, so starting a conversation can be very difficult. Also, knowing when to enter a conversation can be very difficult for our individuals with autism. Individuals may need more support learning how to approach others, how to gain attention, and to begin that interaction.

Also, joining an existing conversation, so again, entering that conversation that's already happening by reading those social cues, identifying the topic that's being discussed, and knowing when and how to contribute without interrupting somebody else.

Topic maintenance, maintaining a topic, staying focused on the current subject, and contributing information that's related and appropriate. This, often, is a major challenge for our individuals with autism.

Also, when we're thinking about conversation, we're talking about topic shifting that feels more natural, so conversations are naturally going to move from one topic to another, so individuals may either shift with the topics too abruptly and might now want to talk about something that they want to talk about, and be more preferred, or have difficulty transitioning away from a topic that is preferred to them.

Identifying and following a change in topics, so beyond shifting topics themselves, individuals must also recognize when someone else changes the topic and adjust their responses accordingly. So, why did that person change the subject? Why is this an important transition for this conversation? And this requires attention to both language and that social context.

Commenting, you know, not a lot of conversation all the time is asking or answering questions. Really, many conversations involve sharing observations, or sharing reactions or opinions, rather than having that back-and-forth, question-answering conversation. So, teaching our students and our learners to comment helps make those interactions feel more natural.

Terminating, also ending that conversation appropriately and not too abruptly. Some individuals may just need more explicit instruction.

And then describing. So, descriptive language allows our individuals to provide details, explain their experiences, and make their communication more understandable to others. So, really, giving that direct instruction to give them strong descriptive skills will support that richer and more engaging conversation.

So, as we move through the presentation, keep that in mind, that conversation is not a single skill, it's a collection of interconnected skills, and effective intervention often involves identifying which specific component is creating the greatest barrier for your individual.

Sorry, I just gave it away. What is the number one answer? So, a family feud little game, the IEP goal for conversations. What are you typically seeing in your IEP goals, or maybe you're getting a new student, and you're seeing their speech and language goals as well? Usually what you're seeing on an IEP is quantity, so the student will engage in 5 exchanges with a partner.



Or the goal might be, student will increase their exchange count when having a conversation with a peer.

However, before we really expect individuals to engage in those successful conversations, or increase their exchanges in those skills, it's important to recognize that many foundational skills contribute to the conversation competence. So, the quality of what we're talking about, not necessarily the quantity of how many exchanges we can make with the conversational peer, or adult. So, some areas to look at, so the proximity and personal space. So, one important skill is to understand that appropriate proximity during those social interactions.

So, really here, you can use those video modeling, the role-playing, and visual demonstrations to help your learner understand how close to stand when talking to somebody.

However, there might be times, and it's also important to teach that flexibility that sometimes they might need to stand a little closer or a little further apart. It just may depend on that situation, and that's going to be our challenging area. It's not so black and white when it comes to conversation. No engagement.

Conversation is going to require active engagement. That doesn't only include what we're saying, but what we're doing with our body. So, are we look... is our body facing the speaker? Is our body, you know, demonstrating attention? Are you remaining within the group and responding when appropriate?

Often when we're talking about individuals with autism, specifically when they're younger, eye contact is a very big topic, and, you know, while that eye contact is important and is often discussed in the skill that they need, the goal really shouldn't be about forcing that eye contact. It needs to be about that engagement rather than the eye contact.

So again, you can use the video modeling, role play, and of course, reinforcement is going to help teach these skills in ways that are comfortable and meaningful for your individual.

So, remaining on topics, the individual needs the vocabulary and the topic to, you know, acknowledge, to make those necessary responses.

Topic shifting, conversations naturally change. So, individuals may just need more explicit conversation, how to recognize when the topic is shifting, and increasing that flexibility for them.

Also, appropriate grammar. So, appropriate grammar can improve the clarity and the understanding, but do they understand the language that is being used in the vocabulary that is being used in the conversation. So really, using language samples, modeling, and giving that corrective feedback when we might be seeing some errors in that language development.

A variety of sentence starters, so some individuals become reliant on the conversational phrases or the sentence starters, so really encouraging variability through the scripts. We'll talk about script quadrants, too, and the modeling, and just keeping that variability.

And then balancing our questions and comments, really, again, just coming in with our flexibility. There are so many more skills that we need, while having these conversations, but these are just a few.



So, we're gonna get into now, semantic mapping, which is a strategy for supporting communication and conversation skills.

Semantic mapping is a strategy used as a graphic organizer and represents concepts in a meaningful and structured way. So, according to Johnson and Collings in 1986, semantic maps helped individuals visualize relationships between ideas and making information easier to recall.

Many of us are familiar with semantic maps, and you might have just not called it semantic mapping, or when you were learning this skill, you weren't calling it a semantic map, you were calling it a graphic organizer, you might have been calling it a web.

But these are these areas of, that we were taught, you know, in that literacy instruction. So, in reading and in writing, that semantic maps are often used.

But by visually organizing information, learners can help understand and connect to one another.

Research has also explored the use of thinking maps to teach metaphor and complex language. So, for example, Marshall in 2011 examined the use of thinking maps to teach metaphors and figurative language to individuals with autism. These visuals supported help make that abstract language concepts be more concrete, concrete and accessible.

So, with that kind of foundation in mind, let's turn to the research and examine what the evidence tells us is effective about mapping as an intervention for individuals with autism. So this is what it looks like. If you remember when in elementary school or back, in ELA, in reading and writing, this is probably something you're familiar with.

So, a web or a semantic map. So right here in this example, you'll see we use the word beach, and then those bubbles and those branches are moving outward to help us connect different words to the word beach without using the word beach. So, the first couple things might be things you might see, so sand, waves, maybe seagulls.

Then you're gonna move on to other categories, so things you're... things you do at the beach, things you bring to the beach.

Maybe people who go with you to the beach, and even those feelings and those descriptions of how you feel at the beach. So maybe sunny, hot, the people you bring are families, but you also see lifeguards, and friends. So, as the map grows, the individual can now visually see the ideas are connected to the topic of speech.

So, from a conversational perspective, now how do we take that? I think we're used to using that in our writing, and making sentences, and maybe building a story, but the same perspective when we're talking about conversation. So this provides multiple opportunities for discussion. So instead of responding with a single word when asked about beach, the individual can now draw from different branches of a map to make those comments. So maybe something like, I like the beach because I enjoy swimming, or you need to use sunscreen because it gets very sunny.

Maybe something like last time I went to the beach, I collected shells.



So, these maps essentially act as that visual organizer for language and conversation.

McCoy and colleagues in 1989 described semantic mapping as a communication tool that helped students organize and express their experiences, thoughts, and emotions by providing that visual structure.

The maps can make it easier for the individuals to share maybe personal information, or even... and even engage in those meaningful conversations.

In addition to being an instructional strategy, semantic mapping can also be used as an assessment tool.

So, it allows us to evaluate the language and concept that the learner already has in their repertoire and already identifies in those areas. But we can take those... that information and now know where the additional teaching may be needed.

So, by starting with the target word or concept and asking the learner to generate related ideas, we can gain valuable information about their depth of their language.

We can see not only what vocabulary they know, but also how they organize and connect concepts. Maybe something to you that won't necessarily make sense about the beach to you might make more sense to them, and then their experiences. So also just understanding their perspective as well.

So, some areas we can assess through the semantic mapping include association, so what words or ideas do the learner know that naturally connects to the target concept?

Attributes can learn to describe the characteristics of the concept, so if we're using beach, that it's sunny, it's hot, it's sandy, it's relaxing. Maybe to me, but to them, maybe it's not relaxing. Maybe it's stressful.

So, categories as well. Does the learner understand how concepts fit together within a larger group?

Parts of a whole relationship, do they understand the components of making it a larger concept?

And then also opposites or, contrasts. So, can the learner identify concepts that are different from or opposite of the target concepts? And also, can they tell us what doesn't belong? We'll get further into that in a little bit, but doesn't belong in those maps. So, using this as an assessment tool is going to help us really identify the strengths, the gaps in vocabulary that your individual has, and the area where conceptual understanding may be limited.

This information is going to then guide us in our intervention planning and help us develop conversation targets that are more meaningful and more appropriate for your learner's current skill level.

Semantic maps help us see the connection an individual may make around a topic, and how they organize that vocabulary and their ideas in their mind. It also shows where they may need that support. So that process is important as... as just... so the process of semantic mapping is just as important as the product of it.



So, our individuals actively practicing linking concepts and building understanding, which is then going to support that language growth and that conversation flexibility, right? A key goal for the learner is to generate as much content as possible on their own, right? The more they own it, the more likely they're going to engage in that conversation. So really increasing that ownership will increase the use of language in the future conversations, right? That positive reinforcement there. so unlike scripts, while being... which provide that language for the learner, semantic mapping encourages the individuals to create and organize their own ideas, usually leaning to more independent, more flexible, and more, conversations overall.

So, this is a website called Popplet.com that we use here, and that Dr. McDonald's uses a lot, but Popplet is an easy online tool for creating visual maps and graphic organizers. This one's a little bit more complex, so they can get really complex on the website, but it also allows the user to organize ideas, add their text or images, and make connections between those concepts.

So sometimes for students with autism, and maybe other learners who would benefit more from a visual support, Popplet can be a helpful way to build those semantic maps.

Here's just another example, so that this one is a little bit more complex, and you can see all the branches, but this one's a little bit more simple. It has the earth, and it just has some questions or things that they can engage in with that picture, right? The center word doesn't always need to be a word. It could be a picture, it could be a scene, also the branches doesn't always have to be words.

So, this was another concept of semantic mapping, but maybe just a more basic concept. So, this is a picture of, I think there are two birds at a library, and it just says, where are they? And branching off into those pictures to get the students to start to think.

So, example, another example we have, the word association is party, but again, doesn't always have to be party. I mean, doesn't always have to be words, it could be pictures, it could be pictures of a party, can be pictures, in a field of a word bank or a field of pictures in an array, so that your student can pick out what pictures associate with them to the word party.

Again, using that semantic mapping as assessment, again, assessments don't need to be complex. We don't need to be running all these checklists, we don't need to be having all these sheets and these clipboards out. It can be just as simple as now taking this map and seeing what our students do and do not belong.

Right, so giving those categories, and can your student now understand categories? Can they understand the relationship between concepts? And can students ask or identify which belong in those categories, but also which don't belong?

And then as they make decisions, we can assess that vocabulary knowledge, the concept development, reasoning skills, and their ability to explain why an item does or does not fit. So this information can help guide us into that future mapping and language instruction for your student.

So, here's an instance. So, the word is party. So, most of us might assume that the three more to the left, so the plates, the presents, and the candles, would be picked, but could pizza be picked?



And if your student did pick pizza, why? To me, I probably would have picked pizza, because most parties, right now I have a 2-year-old, so most parties that I throw are, with pizza, or I attend to are with pizza, so to me, maybe, pizza will have to be in there.

So, someone with autism may not always rule out what might look like that doesn't belong to us. Could a watering can? Right, probably not, but what if it's a specific gardening theme party, or maybe their only experience with a party was a specific theme?

And then the last picture, like, let's not hope we're taking tests at these parties, but we know some of our students may narrow in on that smiley face, and do they associate that with a party?

Are they associating stickers with parties? So, this was just an interesting concept, that we put in here. So, so good to know that not everything, that might seem like it needs to be ruled out should be ruled out. And can your students give the reason why they are, why they think it belongs?

So, this is an example of a student with the word birthday in the middle, and he was given a set of 6 cards, so he picked card, cake, and gifts.

And then that's how this student kind of started off with just simple three branches. This took a lot of time, but, they had moved to now connecting the language. I know it's a little hard to see, but I'll explain some of it. So, Dr. McDonald and her colleagues at the time took a big, like, roll of paper, like you would get at, like, a Home Depot or a paper source, and rolled it out and started with the word Halloween, and saw where the student can take the word Halloween and make that connection.

So, they started with Halloween, then Halloween turned into candy, candy turned into party, party turned into birthday, and so on and so forth, and then birthday turned into candles and Disney, so it really took its own, and morphed into its own connection, which was great to see.

So, semantic mapping can be highly engaging intervention because the individual is actively involved in generating the content. Rather than giving those specific phrases or responses to memorize, they're now contributing their own vocabulary, their own ideas, their own experiences about a topic.

This level of participation often increases motivation and investment in the activity. So, this is going to increase the likelihood of your individual connecting in those conversations. Another strength is going... of mapping is the flexibility it provides. So, unlike our linear list, or maybe a scripted sequence.

The map is going to typically organize in a circular web, or a web-like format, so there's no real single path to follow, and the individual can kind of move from one branch to another with ease.

The map serves as a starting point rather than a fixed script, so if one conversational avenue ends, the individual can look to another branch of the map for a related idea, a question, or even just a comment.



And then as the maps become more complex, individuals also begin forming connections between words, concepts, and topics on their own, and don't necessarily need to rely on the map.

And these connections altogether are going to help strengthen vocabulary networks, support conversational skills by giving individuals more pathway to access that information and contribute to discussions.

So ultimately, mapping is going to promote, not only language development, but also greater flexibility within the conversation and independence.

Now, talking about candidates for semantic mapping, you might be thinking, like, what... what particular learner is this good for? So one group of strong candidates includes individuals who already demonstrated success with those traditional scripts, so they already understand that concept of a conversation and have those foundational skills for a conversation. But they might be ready more... now be ready for more of a flexible approach.

Also, someone who is well-suited for, those well-suited individuals might possess those, well-developed vocabulary and the understanding of a variety of language concepts.

Additionally, candidates should be able to attend to a structured activity or a lesson for a few minutes. So, creating and kind of discussing these maps is going to require some sustained attention. It's going to kind of look like, almost like a mini-lesson at the student's desk, or maybe, you know, in an area that they can sit in and actively participate in the making of the web.

It's also important to remember that semantic mapping is not an all-or-nothing intervention. The complexity of the maps can be adjusted based on the learner's needs. Some individuals may begin with such a simple map, like you saw in the beginning, when their student only had three branches, and then now it went into, a multiple branch and connections.

So, ultimately, semantic mapping tends to be most effective for learners who have a foundation of language skills and are ready to move beyond the rote responses.

Then we're gonna get into written scripts.

So one of the most widely researched and commonly used strategies for teaching conversation skills to our individuals with autism is those written scripts. So written scripts, right, are going to comprise of those textual clues to really get the verbal exchanges increased.

These scripts provide the learner with specific language during those conversations, they help reduce uncertainty about what to say and when to say it. So, there also is a great benefit for those written scripts. And another benefit also is that you provide that contextual, appropriate language. Rather than expecting an individual to generate those responses individually, the script's gonna offer those examples of the comments, the questions, the conversational statements that fit that particular social situation.

Scripts are often developed around specific activities, events, or topics. So, for an example, a script may be created talking about a favorite hobby, maybe a recent vacation that they went on or are going on, participating in a



classroom activity, or interacting with a peer during lunch or recess. The language included in the script is going to tailor to the conversation which is expected to occur.

For many learners, scripts have... scripts serve as a bridge between having limited conversation skills and now being able to participate more successfully in those social interactions.

It's going to provide more structure, more predictability, which, some of our students with autism need right away. It's going to reduce that anxiety, and it's going to increase that confidence when communicating with others. Strengths of using written scripts, so it's an effective intervention.

There's a lot of evidence-based strategies and research behind it. The scripts are going to be consistent, they're going to be replicable, and they're going to provide that stable language prompt for the setting and the instructor.

They're essentially useful for visual learners, strong readers, and can support memorization-based learning. So, if you have a student who, or a learner who, really is great in using their memory, and memorizing maybe some simple scripts, and to get them... their confidence built up, using scripts is going to be helpful.

Scripts can also include multiple exemplars to promote flexibility and generalization, and they can be systematically faded. Though over time, as the student is going to, not need the scripts as much, we can fade those scripts more systematically and more, and to encourage that independent communication. Overall, their structure and the adaptability with the written scripts is widely used and well-supported intervention when teaching conversation skills.

Background knowledge, and vocabulary are essential for conversation, successful conversations, so individuals need a sufficient understanding of the topic to participate in the meaningful conversation, so including the ability to generate ideas, using relevant vocabulary, and connecting those related experiences. Not just also using the relevant vocabulary, but understanding and comprehending what that vocabulary means. So when learners are familiar with the topic, they're most likely going to maintain those conversations, answer the questions, and contribute spontaneously. But without this foundation, interactions may be brief or overly prompted.

Interests and personal experiences also play a key role, as they increase that motivation for our students. Overall, effective intervention should consider not only communication skills, but also whether the learner has the knowledge, has the vocabulary, is interested, and experiences, too, to support that conversation.

So here, here are some scripts that have been used with Dr. McDonald and I with a student, so this student really loves Bath and Body Works. She was highly motivated to go. She was also... she is also a very social individual. She likes to be around, but it was hard for her to maybe initiate those conversations or know what to say. So, she really loves Bath and Body Works, but when we got there, she wasn't sure what to say. So, some of these scripts for her say, what scent is that? It smells good, so those comments. Do you like it?

I don't like it, so that negation and giving her the ability to also say things that she doesn't or does like. And then, can we buy it?



So, this is also the same student. She loved going to see plays and being social, but one thing that kind of stuck out, was that she didn't have all the vocabulary about the theater, so that kind of didn't make her really want to be part of the conversations that were going on in the theater.

So, this is a social story, but it has those written scripts embedded to teach that vocabulary that matters, not just for those scripts, but so that she could engage in those conversations, but know what she was talking about. So, she was going to the theater, the theater she goes to is called the Northport Theater.

A marquee outside of the theater is a marquee, so if someone was talking about that, or she was hearing that in the theater, would she know what someone was talking about?

This is gonna run through the whole social story, but, right, it explains now a marquee is the list of shows that are playing at the theater. So now she knows. So we can read this to her, she could also bring this, and refer back to her.

The box office is where you buy tickets to the show. Inside the theater is the lobby.

So maybe we would get there, and we would tell her the first thing we're going to do is go inside to the lobby, but what is the lobby? Did she know what the lobby was? Did she know what the lobby was there for? So when we get there, we need to wait in the lobby until the show starts. Could she do that? Could she know where we are? Could she talk about the lobby?

A ticket, did she know what the ticket was in that vocabulary? So, each person goes to see a show needs a ticket to get in, so as they're waiting, they would need to show the ticket. Did she know if someone asked to see her ticket to help her to a seat? Did she know what that meant?

So, it's going to list the row number, the section, and the seat number. So, could she identify that on the ticket? Right, so sometimes we think about... it can be, you know, we're going to the theater, but there's so much that kind of, is in these things and these activities that we're doing that we need to give direct instruction to.

You know, a picture of the ticket, once we find our seat and our row, we're gonna locate our seat. Each seat has its own number, and then going through all that. Also, she loved looking through the playbill, but, and she liked looking through them, but she couldn't really get there to ask for them, so we explained to her what a playbill is, and then she loved, like, flipping through it, looking at it, to show us who the character was. She loved talking about the characters in the playbill, and really used it, to... really foster that language, and the songs in the show, so taking that play the home and now looking up the songs that she really enjoyed really connected it all for her.

And then in the show, there's an intermission, so maybe, her teacher knew that she was going to see a show, and maybe you might ask her on Monday morning, what'd you do in the intermission? Does she understand what intermission was? So, these are just some examples. I'm gonna... some of these now. So same student, again. Right now we're using some of that semantic mapping ideas for her scripts. Not in maybe a traditional way, but, we're... right now we're using questions, so, like, what, who, where, how, did you?

She loved cooking, she loved talking about food, very food motivating for her. So really getting those conversations started about cooking.



This was just an example of her blank one, so you'll see it's laminated, so we can kind of adjust as we go, and make this a little bit mobile than some of those other scripts and mapping.

So, cooking vocabulary, really expanding her vocabulary and cooking specifically to the food that her family was cooking often, and what she might more enjoy, and what she does enjoy.

This was also, for her, not... we're using, again, those visuals and that vocabulary for her to make her tuna salad. Right? We're looking back at this, too. It's not all just about pictures, and using this to also then get her to ask questions like, can I have the tuna? Where is the mayonnaise? And how do we cook the eggs, and really taking that and kind of running with it.

This was done by one of the speech pathologists. This class was going to a field trip to pick pumpkins, so they really needed to think about prepping the students on vocabulary. Again, it might seem so small, but really, what do our students understand? And using that opportunity now to expand their knowledge and their language skills.

So, we picked pumpkins in a field. What does a field mean?

But could fields mean different things for different people?

So, we meant, and the speech pathologist meant, an open area of no trees or buildings.

We went to the orchard to pick out apples, and giving those, those opportunities and those choices to pick, you know, the answer and the multiple choice. So, what does an orchard mean? Giving in the language that they're going to see and hear, and need to know.

A place where, you know, fruit grows.

What are we going to see there? Pumpkins, carving pumpkins, jack-o'-lanterns, giving the opportunity to describe this, what's that language that's going to come about? Orange, round, big, small, can they come in different shapes than just round? So really expand... expanding their vocabulary.

I mean, those are options of would you rather carve a pumpkin or paint a pumpkin?

Describing your picture, what's going on in this picture? How many people do you see? Are there a ton of pumpkins? Is there not, a small amount of pumpkins? Do they look heavy?

And then when I think of fall, I think of... and giving them those open-ended and ending the lesson with an open-ended statement to really have the students bring in their own thoughts, words, and knowledge into the lesson. So, describing pictures, this is a student that could describe some pictures and really use those words, to take that he had described and now make sentences and talk to them. So, he was looking at a picture of the beach, he used the words water, beach, sands, starfish, seagull, crabs, plants, and lobsters.



And then he independently said the water is hot, so who knows, the experience of... of water, just in general, is typically hotter. Does he like it more warm? Did he have, does he like to go maybe more where the water is warmer?

And then he independently commented that he needs a vacation. Well, I mean, same, but, kind of, really kind of taking that information and the beach and the picture and relating it back to a vacation, maybe, that he wants to experience, or that he's just ready for that vacation.

Same student, asked to describe the picture, so, he stated fire, boat, ship, and hook, which, when you look at it, fire, right? He's talking about the smoke coming from the towers of the boat, right? It's a picture of a boat, and the hook that he sees as the anchor.

This is a data sheet that is to take in, right? As a behavior analyst, we're always taking data and important data, but this was just a quick, data sheet that was used for initiating conversations of, about things that happened. Not initiating, but conversations that happened. So, initiating those greetings, asking about something that happened yesterday.

Makes a follow-up statement, also, makes a question or a comment about today, so seeing where our data and where the student might need some help, in which step they might need.

One of the challenges we often see when teaching conversation skills is that learners become very successful within a specific topic scenario, but might struggle when conversations become less predictable. So, for this reason, we need to teach and intentionally teach flexibility. So, one way to promote flexibility is to use those multiple exemplars. We can also vary sentence starters and conversation openings. So, for example, instead of always teaching your learner to begin with, like, I like, you can teach them, my favorite thing is, I enjoy, have you ever tried? This is going to increase that conversation variety and help interactions sound more natural.

It is equally important to teach learners what to do when things do not go according to plan. Real conversation is or are unpredictable, and conversation partners may respond in unexpected ways. They're going to change the topic, they may even disagree.

Maybe they might ask some unfamiliar questions, or show limited interest in the topic. And I'm sure that's happened, you know, quite a few times, where maybe, someone has disagreed with the statement that was said, or maybe has shown limited interest in the topic that your student is talking about. Your student's really interested in the beach, and going on vacations, but this person's really into talking about their favorite board game, or playing Uno, and now we have limited interest, and what do we do to teach our participants what to do when that happens?

So as instructors, we need to think and should think about how people might realistically respond.

And whether the participant is prepared for those different responses. Will they have a hard time? Will they shut down? What will they do, when the conversation goes awry from what they are expecting? So, our ultimate goal is not for individuals to really memorize those conversations, but to develop skills needed to participate in those natural, dynamic, and sometimes unpredictable conversations.



So, initiations, when looking at this, we typically forget the left side of the board, but what if someone says no to our question? What do we do? We need to teach the skill, so your student's saying, want to play cards, and the peer response is no.

Does your individual know that they might... they can ask them to do something different? And does your individual also know they have the option to now go ask somebody else to play cards?

You know, this is a quadrant script, so quadrant scripts are a strategy used to increase that flexibility and the variability in conversations, while also still providing that structure and that support. So rather than teaching maybe a single scripted statement, a quadrant script is going to organize multiple options into categories, allowing your learner to mix and match those responses.

So, this helps move conversation from... away from just that memorization and more towards that language use. So, for example, this, one we have here, this was used with a highly motivated 5-year-old. She wanted to be social, she wanted to be around her peers, she just didn't know how. So, Dr. McDonald taught her some key phrases that helped in the conversation, to stay in the conversation and to stay quote-unquote, in the game.

They found that if she gave some type of response, not necessarily, a response that was related to what was being said, that her typical peers would stay and have a conversation, but if she gave no response at all, they just exited the conversation on their own, which makes sense, right? If you're talking to somebody and they don't give any response, you're not going to think they're interested, and you're going to move on.

So, for example, here, somebody in the classroom came up to her and said, my, oh my god, my cat threw up yesterday, and if she didn't respond with even just one of these, scripts in the quadrant; they'd walk away. But, if she responded with, maybe, really? Or wow, they were to respond to something like, oh my god, yeah, all over, or yeah, it was disgusting. So, it kept her in the game a little bit longer, and kept her in that conversation a little longer, which she enjoyed, because she was so socially motivated.

The benefit for this approach is that the learner still receives support, but they're also making choices and generating those novel combinations of language. So this is going to encourage greater independence and help prevent conversations from sounding repetitive.

They can also teach variability in sentence starters, different ways to ask questions, different types of comments, topic maintenance and topic expansion, and also responding in a variety... responding to a variety of conversational partners.

Because there are multiple possible combinations that's going on with the quadrants, learners are exposed to many conversation opportunities while still working in this structured framework. So over time, the goal is to fade the reliance on the quadrants as the learners begin to independently generate those comments, questions, and responses.

In this way, quadrant scripts serve a bridge between highly scripted interaction and more spontaneous, flexible conversations.



We can also use them not to just answer questions or be part of the conversation, but to ask and follow up questions. So, you're gonna... you can practice the skill as a game. Here, Dr. McDonald, used it as a WH card and topic card, game, so she had the who, what, where, how, do you, conversations, and then she had a topic card and picture, and they would flip over, the topic conversation, and then flip over the who, what, where, or when cards, and then the student would have to come up with a question related to that picture, and then it was her turn, and back and forth, and it didn't really feel like learning to the learner.

Another strategy that can be used is comic strip conversations, originally developed by Carol Gray in 1994, and this visual is more natural. Comic strips can help make those abstract social concepts, maybe such as thoughts, feelings, intentions, and conversation exchange easier to understand, right? And also, comic strips are fun. We can make them fun, we can make them interactive, and they can be used to provide that opportunity for participants to observe an interaction on the script, so how those characters in that script are going to formulate that conversation and how it's going to progress.

Then secondly, more often, and more often used, is participants can create their own comic strips, so involving the individual develop process to encourage that active participation, and help them think through the possible conversation exchanges.

For example, maybe the instructor may create first-person initiation, so it says, what did you do this weekend? And the participant is responsible for generating the responses. This can also help with turn-taking, topic maintenance, perspective taking, maybe predicting how other people are going to respond, and then generating multiple conversation possibilities.

This website, MakeBeliefsComix.com, awesome website to use. You can make your own, your students can make their own, they can, you know, you can... create 50% of it, and your students create 50% of it, you know, and using it to really engage your students in their own, conversation comic strips.

While written scripts may be highly effective, it's also important, can be highly effective, it is important to recognize that they also have their limitations. One common concern is that scripts do not naturally lend themselves into flexibility or spontaneity.

Because the languages are already pre-written and predetermined, learners may become more dependent on the specific responses.

Another limitation is the potential lack of generalization once the script is removed. Can the learner perform well without the script, and they may struggle to maintain those skills independently?

Scripts are often used and require training, communication partners, as well as peers. So, peers may also need that instruction on how to respond to the script, maybe also how to wait for the response, and also to support the interaction.

Another consideration is comprehension. A learner should understand the words and the language contained within the script.



Not just because an individual can read and recite a script, does it necessarily mean they understand the meaning of what is being said. So, for example, if someone is taught to answer, what did you do last night with, I played a game, we need to ensure that they understand both the question and the response, rather than simply just memorizing that exchange.

Scripts are often developed by instructors, which can create some mismatch between the script and the learner's actual experiences, the learner's actual interests or preferences.

If the content is not meaningful or familiar to the individual, conversations are going to sound unnatural, and the learner is not going to be motivated, or less motivated to use the language.

For these reasons, scripts are often most effective when they're individualized, regularly updated, paired with the opportunities for flexibility, and systematically faded over time.

This was a nice chart that we had comparing both scripts and semantic maps. So, some down the chart is scripts are going to be more mobile. They're going to be able to be taken with you. While maps are going to be more desktop learning or mini-lessons one-on-one with your student. Scripts tend to be more passive, where maps tend to be more active.

And another example on this chart is scripts are more in the moment, while maps are going to be applied from prior learning.

There's no single conversation intervention that's going to work for every individual, so really selecting what's right, for your student, and considering their strengths, their learning style, and their ability. Is your student a rote learner? Is... does the individual engage in learning experience actively or passively? So, these are just some questions, and this is important to assess which, you know, teaching intervention you're going to use.

This article is called Promoting Conversations in Students on Autism Spectrum, Scripts and Semantic Mapping by Dr. Mary McDonald and Dana Battaglia. This article reviews two approaches for improving those conversation skills in individuals with autism, so the scripts and the mapping. It's going to emphasize that conversation requires more than just exchanging information.

And research shows that scripts can increase the initiation, improve peer interaction, and support structured conversation exchanges, with some evidence of generalization and novel language use. However, limitations include that its reduced flexibility, potential, dependency, and limited generalization.

So, everything that we've kind of been talking about, here's the evidence and the research behind it. To address the limitations, the authors did highlight, so Dr. McDonald and Dana Battaglia did highlight that, semantic mapping, and overall, the article concludes that scripts provide the structure, while semantic mapping is going to promote that flexibility.

But using them also together, can support and is important, to making our learners more independent and engaging in those conversation skills.



As we think about conversations and interventions, it's important to remember the conversation is a two-way interaction, so we're not just... we tend to focus on the student with autism or our learner and what they're doing, but we also need to take, and we're going to collect that data, we're going to often... often measure how many initiations that our learner is given, or responses and those comments, but what about the communication partners, to our participant?

So, are their responses meaningful? Are they engaging? Are they encouraging continued conversation? So, the quality of their interaction partner needs to also be... is going to make a significant impact on the conversation.

So, another research conducted by Dr. McDonald and Nancy Hems, so this is increasing that social initiation towards adolescents with autism.

Here the procedure, they had a young adult named Neal. Neal had conversation skills, they had the ability to... he had the ability to engage in conversation, but was not motivated to do so. So almost like a token system was implemented. So, during baseline, Neal had 15 discs labeled with adults' names, so Sally, Annie, and Amber.

These were the adults he needed to talk to. If he initiated the conversation, he received verbal praise.

But he earned the 15 tokens at the end of the session regardless if he initiated or not. And then during the probe sessions, the discs were removed. Neal was simply instructed to talk to Sally, Annie, and Amber. Verbal praise was still provided, but no tokens were delivered.

And then, the... during the procedure, during the training session, Neal had the discs back on his desk.

He was told that the discs were to remind him to talk to Sally, Annie, and Amber. In the first phase, the focus was Sally. Neal had shown the disc with Sally's name on it. Initiation was specifically prompted towards her.

And then the disc kind of just served as a visual reminder, while the token economy provided that reinforcement for the initiating conversations.

Full graph showing the baseline for initiation to, to each staff was low, no real initiations to staff, more towards maybe Annie, and then after the intervention, we can clearly see that the increase in that initiation from Neal. The staff responses to young adults?

It was 100%, so good thing, but same with the staff initiations to the young adult. They were.. they were low, and then when he started to initiate more, and when they understood that he was able to be a significant conversation partner, they started to initiate more.

So, it was important for Neil to initiate more. It's also important to be sure that the people were responding to him when he did initiate, and most important to know that people were now initiating to him more.

Now, as we conclude, it's important to remember that many individuals with autism experience challenges with conversation due to difficulties with the cognitive flexibility, social reciprocity, and semantic knowledge. These challenges can affect their ability to initiate conversation, maintain topics, shift between ideas, and engage in



meaningful back-and-forth interactions. These strategies we discussed today include written scripts, semantic mapping, quadrant scripts, comic strip conversations, and social reciprocity approaches.

These are all designed to address these challenges in different ways. Some provide structure and predictability, while others are going to promote that flexibility and independence. A key takeaway is that there's no single intervention that works for every learner. Effective communication instruction begins with understanding the individual's strengths, language abilities, learning styles, interests, and their previous learning history.

By carefully assess... assessing these characteristics and selecting interventions that align with the learner's profile, we really can create these opportunities for more meaningful, functional, and successful conversations. Not just with one partner, but across settings and across communication partners. Ultimately, our goal is not simply to teach individuals what to say, but to help them become more confident, more flexible, and more engaging conversational partners.

I appreciate everyone's time today.

These are some resources that are available as well, and thank you again for your time.

Kimberly Ha

01:00:33

Great, thank you so much, Katie. We are now at the top of the hour, so if some people need to leave, that's fine. We'll now begin the Q&A portion of today's session. As a reminder, you can submit questions in the Q&A box at any time.

We have one attendee who has an 8-year-old learner, has trouble making cause and effect associations or generalizing questions. For example, he can answer, when is your birthday, but not, when were you born?

They can see semantic mapping being helpful. Do you have any tips or general recommendations for writing protocols specific to these types of communication skills related to causation or generalization?

Kathleen Cutrone

01:01:15

So, right, when we're introducing birthday, and, they know their birthday, but when were you born, is a different, different question to maybe your learner. So really, using different scripts, different ways to ask those questions, and different ways, that your child might see the question, but using those maps and using those scripts is going to really, you know, help your learner understand the different vocabulary.

Really introducing and using the vocabulary naturally, too, throughout the day, so they're exposed to it more, and throughout their learning is really going to be helpful for your learner. So again, really not sticking to, like, always asking, and if you're... if you're still... if your learner is in maybe a discrete trial, always using, when is your birthday?



But do they understand the word born is really kind of what I would get to in the crux of what's kind of going on there. But not just with that example, but maybe with all your other examples. Have they been expo... other examples, but have they been exposed with or to that vocabulary.

I hope that helps and answered.

Kimberly Ha

01:02:24

Great, thank you, Katie.

We have another question from Itza. Do you have any recommendations for kids to differentiate between past, present, and future?

Kathleen Cutrone

01:02:35

Oh, that's definitely hard. I think that sometimes our students are using what they're experiencing in the moment, and maybe a feeling that they're experiencing in the current moment with a feeling in the past.

So, getting them to connect, maybe they felt frustrated in that moment when they didn't get, you know, what they wanted, and now they're also experiencing that same type of feeling. So, connecting them could, you know, using those maps, again, you can put the word frustrated and feeling, so it doesn't always have to be used to teach, conversation, but to acknowledge their emotions.

So maybe using the word frustrated, or a feeling, in the map, and then kind of seeing where they go from it, where they're bringing their past into it, and seeing that connection.

What is the connection that they're making between the past, present, and the future? And then some of it's just grammar, you're just gonna have to kind of teach the appropriate grammar for your student.

Kimberly Ha

01:03:34

Great. Well, that's all the time we have, and then anyone who had additional questions, we'll share them with you, Katie, to answer offline. Thank you again, Katie, for stepping in and delivering this presentation with us. We truly appreciate your time and expertise that you brought to this session, and thank you everyone for joining us this morning.

I'd also like to thank Endicott College and Eden 2 Programs for making this free program available. And if all of you found this event helpful, we'd like you to join us again this afternoon at 2 p.m. Eastern Time for our next webinar, featuring Dr. Rachel Taylor on Who said ABA is not for adults? Busting myths and building futures.



On behalf of OAR and our incredible partners, thank you for spending part of your day with us. We truly appreciate your participation and engagement and hope to see you again this afternoon. Have a wonderful rest of your day.