

THE EFFECTIVENESS OF APPLIED BEHAVIOR ANALYSIS FOR TEACHING
CONVERSATION SKILLS TO ADOLESCENTS WITH AUTISM SPECTRUM DISORDER

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ABSTRACT

The Effectiveness of Applied Behavior Analysis for Teaching Individuals with Autism Spectrum Disorder Conversation Skills
(Under the direction of Kayla Crook)

The use of Applied Behavior Analysis (ABA) has become more widespread in recent years, particularly among individuals who have autism spectrum disorder (ASD). This literature review explores using ABA to teach adolescents (ages 11-21) conversation skills. Adolescence is already a difficult age socially for any individual and for adolescents with ASD, this is no different. One of the most common indicators that an individual might have ASD is difficulty with communication and social interaction. While skill levels can vary greatly between individuals, everyone can benefit from instruction in this skill set. This paper explores using ABA as a method for teaching individuals with ASD the essential skills required for successful social interaction and conversation. ABA is widely recognized as an evidence-based therapy that uses behavioral principles to modify and improve specific behaviors. In this literature review, the studies examine the applications of ABA in teaching conversation skills to individuals with ASD- including the use of specific techniques such as a teaching interaction procedure, video-modeling, role-play, and power cards, to promote social communication. The results demonstrate the effectiveness of ABA in improving conversation skills in individuals with ASD and highlight the importance of structured, goal-directed therapy in promoting positive behavioral change.

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I have always been passionate about working with students that have diverse needs, and I cannot wait to start my career as an educator next year. Since my passion has been formed by a multitude of life experiences, choosing Special Education as my major seemed like the obvious choice.

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I came to The University of Mississippi because I wanted to be part of the Mississippi Excellence in Teaching Program (METP). It was the only program at any of the schools that I considered which allowed teacher candidates opportunities to observe in the K-12 classrooms during their freshman year. Hands-on experience in the classroom was the part of my teacher preparation that I was most excited about, and I wanted to start it as soon as possible. At the time, I assumed whichever program had the highest requirement of field experience hours would prepare me the best for my future teaching career. I still strongly believe in the importance of this time in the classroom. Unfortunately, the Covid-19 pandemic made it difficult to get the hands-on experience that I wanted. Despite this setback, the METP program has done an excellent job getting us into the classroom as frequently as possible despite the challenges presented by the pandemic. I am incredibly grateful for every minute that I have been in the classroom.

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I have had a lot of experience with family and friends who have a range of abilities. I only have four first cousins, and one of them is a 17-year-old boy with ASD. My extended family is small, so we are close. Since he is only a few years younger than I am, we grew up together and has always been someone whom I am the close to.

In my kindergarten class, there was a young boy with Down Syndrome. Throughout elementary school, his family and my family grew close, and he was in my class every single year because the teachers knew we were friends. In late middle school, I started babysitting for different families in my neighborhood. Two families in my neighborhood have kids that have

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diverse needs. One had a boy with ASD and Oppositional Defiance Disorder, and another had a girl with a rare genetic disorder that caused a significant developmental delay. I babysat for these families almost every weekend until I went to college and I loved every minute of it. I loved coming up with creative ways for us and their siblings to all have fun together.

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In high school, I worked as a paraprofessional at a summer camp. I worked with two different middle school boys who had autism and a middle school girl who had down syndrome. I enjoyed collaborating with the counselors to come up with activities and games that everyone could participate in. The following summer I volunteered for an organization called Team Activities for Special Kids (TASK). They have different team and individual sports for kids and adults that have diverse needs such as baseball, fishing, bowling, swimming and track . Volunteers are assigned to a specific person, and they participate in the sport with or help them participate. I worked with individuals of all ages and varying ability levels. These two experiences were important because it was the first time that I worked in a structured environment with individuals who have disabilities. There were clear objectives and activities for us to complete whereas previously the only thing I had to accomplish was to have fun and keep everybody safe. I found working with people who have diverse needs in this structured way to be rewarding.

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All these different experiences led me to the conclusion that I want to work with people who have diverse needs. Selecting special education as my major seemed like the logical choice once I realized that some of my happiest moments have been spent with people who have disabilities. This is not to say that every moment of it has been perfect. There were tough days too. But we need challenging days to make us grateful for the easy ones. They make the accomplishments more meaningful and the growth more rewarding.

After deciding to be a special education major, I started touring different colleges and researching different programs. I toured seven different schools and met with someone from their education department at all of them. I narrowed it down between Indiana University and the University of Mississippi (UM). Once I was accepted into METP, UM became the clear choice. Indiana has a great program, but I would not have been in a classroom, working with students until my junior year, and to me, that was a dealbreaker. I felt strongly that the most important thing was for me to be in the classroom getting hands-on experience with students.

Several factors guided the selection of my capstone topic. I knew I wanted to research something special education related so that I could utilize my research in my future teaching career. I had several friends who were majoring in psychology and suggested I may be interested in Applied Behavior Analysis (ABA). After learning about ABA in my classroom management course and doing some independent research I was indeed interested in it and wanted to incorporate ABA into my project as well. To narrow the topic more, I decided to focus on whether ABA was an effective method for teaching middle school students who have ASD. I have found through my experiences that I work particularly well with middle school boys who have autism. I narrowed the topic further, focusing on a specific behavior, social skills. Social skills are critical life skills for everyone, but especially for middle schoolers and students who have ASD. However, that was still too broad, so I narrowed it even further to conversation skills. My final topic is the usage of ABA to help adolescents with ASD learn conversation skills.

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Chapter II: Literature Review

Applied Behavior Analysis (ABA) can be effectively used to teach conversation skills to adolescents with Autism Spectrum Disorder (ASD). Conversation is a complex social skill that involves the exchange of information and ideas between individuals through verbal and nonverbal communication (Wattanawongwan et al., 2022). Conversation involves taking turns speaking, maintaining eye contact, using appropriate body language, and following the rules of conversation (Gutman et al., 2012).

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For individuals with ASD, conversation skills can be particularly challenging due to their deficits in social communication and interaction. ABA can be used to teach conversation skills using structured teaching procedures and systematic use of positive reinforcement.

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One approach to teaching conversation skills using ABA is to break the skill down into smaller, more manageable components (Ivy & Schreck, 2016). For example, an individual with ASD might first be taught how to initiate a conversation by saying hello or asking a question. Once this skill is mastered, other components of conversation, such as taking turns speaking or maintaining eye contact, can be introduced (Ivy & Schreck, 2016).

ABA interventions can also involve the use of visual supports, such as social stories, conversation cards, and video modeling, to help the individual with ASD understand and follow the rules of conversation (Davis et al., 2009; Murphy et al., 2018; Stauch et al., 2018). Visual supports can be particularly useful for individuals with ASD who may have difficulty understanding and processing verbal instructions (Davis et al., 2009).

Positive reinforcement is a key component of ABA, and it can be used to encourage individuals with ASD to use their newly learned conversation skills (Ivy & Schreck, 2016). This might involve using rewards, such as praise or tokens, to reinforce the desired behaviors.

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Overall, ABA can be an effective tool for teaching conversation skills to adolescents with ASD. By breaking the skills down into smaller components, using visual supports, and reinforcing desired behaviors, ABA can help individuals with ASD improve their social communication and interaction skills (Ivy & Schreck, 2016).

Due to the growing use of ABA, I wanted to research just how effective it is in teaching adolescents with ASD conversation skills and if there are specific ABA methods that are more effective than others. To begin this process, I searched through three online databases: JSTOR, One Search, and Google Scholar. The terms autism, ASD, adolescents (participants ages 11-21), ABA, social skills, and conversation skills were used to find articles and studies that related to or demonstrated the effectiveness of using ABA to teach adolescents with autism conversation skills. Only sources not older than 2007 were used.

I screened the sources and only utilized studies that had participants who fall between the ages of 11-21 and have ASD. Then I evaluated the sources to see if the studies used ABA to teach social skills, specifically conversation skills. I organized the resulting thirteen sources into categories based on the different methods of ABA used:

- Three of the sources were Meta-Analyses of other studies, all of which met the above criteria (Gunn & Delafield, 2016; Ivy & Schreck, 2016; Wattanawongwan et al., 2022).
- One of the studies used a teaching interaction procedure (Kassardjian et al., 2013).
- Two of the studies used behavior skills training (Hood et al., 2017; Rao et al., 2007).

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- Three utilized a specific program that the researchers either purchased for use or created specifically for the study such as the UCLA PEERs school-based program or the Superheroes Social Skills program (Davis et al., 2009; Murphy et al., 2018; Wyman & Claro, 2019).
- One utilized video-based modeling (Stauch et al., 2018).
- One utilized role play (Gutman et al., 2012).
- Two overlapped and utilized multiple components, so they fell into multiple categories (Bambra et al., 2016; Dotson et al., 2010).

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Meta-Analyses

There are three meta-analyses included in this paper, and each demonstrates a different important factor in the efficacy of ABA. The first meta-analysis researched whether ABA can be used effectively over the entire life span of individuals with ASD as opposed to only proving to be effective during different stages of development (Ivy & Schreck, 2016). This article concludes that ABA is an effective method for individuals with ASD at any age. The way that individuals develop across the lifespan does not affect their response to ABA, "From this perspective, behavior analysts can consider interventions or comprehensive programs based on basic operant principles to be conceptually efficacious at any age" (Ivy & Schreck, 2016). Since this meta-analysis concluded that ABA is effective for individuals with ASD at any point in their life, I inferred that this applies to adolescence which addresses a specific criterion for this research. This allows the focus to shift to who is implementing the ABA procedure, where they are implementing it, and the specific method(s) used.

The second meta-analysis explores a variety of interventions for teaching conversation skills to individuals with ASD and also emphasizes who is implementing the ABA procedure

(Wattanawongwan et al., 2022). This meta-analysis explores the differences in effectiveness when parents, caregivers, educators, researchers, and peers implement ABA methods when teaching conversation skills. Their research concludes there was almost no difference between researchers and educators implementing the ABA and there is a slight increase in the generalization when parents and caregivers are implementing it. Additionally, "it is possible that educators can teach peers to participate in social-communication interventions which would increase the likelihood of adolescents and adults with ASD using communication skills across a range of natural communicative partners and also allow them to maintain generalization skills" (Wattanawongwan et al., 2022). In this meta-analysis, no matter who was implementing the interventions, almost all participants were able to generalize the skills being taught. An important factor to consider is that the generalization did increase with participants who were taught by their parents, caregivers, or peers. However, ABA is still an effective method no matter who is implementing it.

The third meta-analysis discusses a different factor, the environment in which the ABA interventions are implemented (Gunn & Delafield, 2016). Most of the studies included in this meta-analysis demonstrated that the skills taught in one environment can be generalized to another. They found that "skills learned under specialist classroom technique can be maintained in mainstream settings" (Gunn & Delafield, 2016). While this is not true for every single participant in every single study, it was true for most participants that they can generalize what they were taught in mainstream settings. This indicates that the environment in which participants are taught, does not always matter and that the skills taught should generalize regardless.

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From these three meta-analyses, it can be concluded that ABA is effective for individuals with ASD regardless of their age, where the interventions are implemented, and who is implementing them. Under a variety of different circumstances, the skills are acquired and generalized. This means the last factor that contributes to the effectiveness of ABA is the actual methods used. There are many different ABA methods such as video modeling, power cards, social stories, and visual supports. The method or combination of methods used is the main factor that determines the effectiveness of ABA, and therefore, it is the topic is that will be explored in the rest of this literature review.

Teaching Interaction Procedure

One of the studies exclusively used the teaching interaction procedure as their method for teaching conversation skills. When implementing the method the procedure typically involves several steps starting with identifying the target behavior or skill that should be taught. Then that skill is broken down into smaller, more manageable steps or prompts. After that, the prompts or instructions for the skill are presented clearly and concisely. Once the individual demonstrates this behavior or skill, they are positively reinforced as they demonstrate mastery of the skill, and then the prompts are gradually faded out until they can perform the skill independently.

The study that exclusively utilized the teaching interaction procedure focused on five adolescents with ASD and used the teaching interaction procedure to teach them specific social skills (Kassardjian et al., 2013). The individuals who made up the control group never got above a 30% accuracy of response to the prompts. Three of the four who were taught the skill started with baseline data in the 20-30% accuracy range in response to the prompts. The other participant had baseline data in the 40-50% range. After the teaching interaction procedure, the four generalization phases, and the follow-up, three of the four individuals got above 97%

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accuracy response to the probes (Kassardjian et al., 2013). This indicates that not only is the teaching interaction procedure an effective method for teaching conversation skills, but the individuals were able to generalize the skills to their natural environment. The skills they were taught in the context of the study the participants can utilize in their everyday life.

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Behavior Skills Training

Another ABA method that is used is behavior skills training. It is very similar to the teaching interaction procedure except the teaching interaction procedure is typically used in a specific social or educational context. It is often used with individuals who have limited communication skills, and is typically more structured. Behavior skills training is generally a broader approach to teaching skills in a wider range of settings, used with individuals who have already acquired some level of social or communication skills. Often it is less structured and involves more naturalistic strategies that are designed to be closer to real-world situations. However, the general steps of the process are the same.

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Two articles used behavior skills training. The first article focused on conversation and greeting skills with high school-aged individuals (Hood et al., 2017). This study worked with a 15 and a 16-year-old with ASD to improve their conversation and greeting skills. There were 23 specific skills they focused on that ranged from making eye contact to shifting the topic of conversation. The study was generally successful and, "These outcomes of robust acquisition, demonstration of generalization and maintenance, and high acceptability scores indicate that individualized treatments with methods similar to this study may help individuals with an ASD become more successful in greeting and conversing" (Hood et al., 2017). These results indicate that behavior skills training is a valid method of ABA for teaching individuals with ASD this specific set of skills. Not only did the individuals learn the skills but they also were able to

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demonstrate generalization. Additionally, before the study, the parents reported a high level of dissatisfaction with their teenagers' greeting and conversation skills and afterward, they reported high overall satisfaction with the same skills.

The second article, which discusses behavior skills training, reviewed specific interventions and made recommendations on which of the interventions is the most effective (Rao et al., 2007). This article reviewed 10 behavior skills training interventions that were used to teach adolescents with ASD conversation skills. Seven of the interventions reported positive treatment effects and three of them reported no treatment efficacy. The article discusses how behavior skills training is currently demonstrating promising results, however, the methods are still being developed for utilization with individuals with ASD. Since this article was written in 2007 most of the limitations expressed have been addressed in the following years. Since the results were promising when the review was conducted and the limitations discussed have since been addressed, it can be concluded that behavior skills training has only grown in its efficacy and is therefore an effective method for teaching conversation skills to individuals with ASD.

Specific Strategies and Systems

Three of the other sources found in the research process utilized specific strategies or systems of ABA that they either purchased or created and evaluated whether these strategies effectively taught adolescents with ASD conversation skills. The first study utilized power cards to prompt previously learned conversation skills among three high school students with ASD (Davis et al., 2009). Power cards are a type of visual aid that is used to teach and reinforce specific behaviors or routines. The students were given explicit instruction in initiating and maintaining conversation skills with their peers without disabilities. They did not demonstrate mastery after only the explicit instruction, but after the use of the power cards therefore they did.

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Therefore, it can be concluded that there was a functional relationship between the use of power cards and the percentage of time students were able to engage in conversation with their peers (Davis et al., 2009). This indicates that the use of power cards increases the amount of time students can spend in an other-focused conversation. Perhaps power cards paired with another method such as behavior skills training could have a combined greater effect on the ability of individuals with ASD to learn and utilize conversation skills.

Another study utilized the UCLA PEERS School-Based program, which is a curriculum designed to teach individuals with ASD-specific social skills (Wyman & Claro, 2019). Sixty-three students between the ages of 16 and 21 attended 45-minute sessions twice a week for sixteen weeks where they were taught the PEERS curriculum. The lessons included didactic lessons, role-play demonstrations, behavior rehearsals, group discussions, videos, imagery, a step-by-step list, and modeling. The results of this were an increased knowledge of conversational and social etiquette. However, the post-test results indicate that the students had difficulty applying this enriched knowledge base to a real-life situation (Wyman & Claro, 2019). The post-test results indicate increased knowledge but not an increase in the application of knowledge. The PEERS curriculum might not be the most effective method for teaching individuals with ASD conversation skills because, while gaining knowledge is important, it is vital that knowledge acquisition also has practical life applications. If they cannot take the skills and transfer them to real-life situations, then this intervention strategy is not fulfilling its purpose.

The last study evaluated the effectiveness of the Superheroes Social Skills program with middle schoolers with ASD, which had previously only been utilized for elementary-aged students with ASD (Murphy et al., 2018). This program uses videos of superheroes to model and

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explain different social and conversation skills. The results demonstrate not only improved skill accuracy within the training setting but improved skill accuracy in the classroom when probed as well (Murphy et al., 2018). The Superheroes Social Skills program is more effective than both the UCLA PEERS and the Power Card strategy because it utilizes video modeling. Video modeling is a technique used in ABA where the individuals watch videos of a specific behavior, often multiple times, then they break the behavior down into smaller more manageable steps. By watching the video, the individual learns the steps needed to complete the task, and the order and sequence to follow. The other two studies utilized Power Cards and then a specific curriculum that did not include video modeling. Perhaps video modeling is the specific element that allows this strategy to be more effective than the other two.

Video-based Modeling

Another study that utilized video-based modeling discussed teaching social skills to individuals with ASD and intellectual disabilities using video-based group instruction (Stauch et al., 2018). In this study, five participants were briefly introduced to a skill, they watched a video of peers modeling the skill then they had the opportunity to practice the skill with in-session corrective feedback. They then watched another video of the same skill being modeled and practiced again. Four of the five individuals were able to take the skills taught and generalize them to a real-life setting such as the cafeteria at lunchtime (Stauch et al., 2018). This method of teaching not only proved to be effective and facilitate generalizations, but the outcomes also support the use of this method in settings where more intensive services are not feasible. The intervention was administered effectively in a small group, meaning it could be put into practice in a similar small-group setting. Often times when working with individuals with ASD,

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educators think the best instruction is done one-to-one, but this proved that this type of intervention can be administered in a small group and is still effective.

Video-based modeling and role play are both effective strategies for teaching adolescents with ASD conversation skills. While video-based modeling provides a visual representation of a skill, allowing the adolescent to watch and imitate the behavior while role-play allows for more direct practice and interaction in a controlled environment. By combining these two techniques, practitioners can provide a comprehensive approach for teaching conversation skills that address the visual and social learning needs of adolescents with ASD.

Role Play

According to Gutman et al., 2012, individuals with ASD received four 1-hour sessions of intervention over four weeks. During these sessions, the individuals participated in motor-based role-play with canine assistance (Gutman et al., 2012). Motor-based role-play is a method of ABA in which individuals engage in physically active simulations of real-world scenarios or tasks; the goal of which is to improve motor skills and enhance cognitive and social development. The participants role-played scenarios practicing skills like greeting, initiating conversations, maintaining conversations, maintaining eye contact, and orienting their bodies to face other individuals. The participants even went out into the community and interacted with people not involved in the study in order to practice generalizing the skill. The students were probed once a week before during the study and then three months after the study and all participants demonstrated mastery of the skills during and after the study (Gutman et al., 2012). This indicates that role play is an effective method for teaching conversation skills to individuals with ASD. It is especially promising that they were able to generally maintain the learned skill after three months.

Multi-Component Methods

Two other studies found during the research stage both utilized a combination of multiple methods that have been discussed so far. The first utilized teaching interaction procedure, modeling, and role-play to teach eight adolescents with ASD specific conversation skills such as maintaining eye contact, appropriate body language, and appropriate tone of voice (Dotson et al., 2010). During the teaching portion of this study, all participants demonstrated significant growth from their baseline data. Almost all participants met the criteria for mastery and could demonstrate partial generalization, even after two months. However, none of the participants were able to demonstrate generalization of all the skills (Dotson et al., 2010). Several conclusions can be drawn from this data. The first is the other studies discussed seemed to have a more structured approach for building to the skill generalization stage which could have hindered the generalization results. Additionally, it is important to note that ASD is a spectrum and that this study worked with individuals who were lower functioning and lacked the language skills that participants in other studies might have had, making it more difficult for them to learn, maintain and generalize the skills taught. Nonetheless, the study indicates that their methods were successful in teaching conversational skills using this multi-component approach because the skills were maintained after teaching and they all showed higher-than-baseline levels of performance, the only caveat being that the skills did not generalize.

The second multi-component study aimed to teach social-communication skills to high school students, particularly in the lunchroom with their peers (Bambra et al., 2016). The students received interventions loosely based on teaching interaction procedures in a group setting and utilized a strategy like power cards. The participants all demonstrated improvements like an increased number of conversational acts, initiations, follow-up questions, and length of

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conversation with peers within the setting of the lunchroom (Bambra et al., 2016). The participants received brief interventions then went to lunch and were able to immediately apply the skill they had been taught. Throughout the study, significant improvements were made. Perhaps proceeding directly to the generalization/application stage and bypassing a role-play intervention increased the effectiveness of these given methods.

After reading and analyzing this literature I have concluded that all the different methods of ABA were effective to some degree. The studies that utilized teaching interaction procedures and behavior skills training were incredibly effective. The studies that utilized video-based modeling and role-play were effective as well. These seem to be the four main strategies that, when utilized either exclusively or in tandem with one another, produced the most promising results. The participants in these studies were able to acquire, maintain and generalize the skills they were taught during the intervention, thus meeting the intended goal.

Perhaps future research could be done utilizing another multi-component strategy incorporating either behavior skills training or teaching interaction procedure with a video-modeling or role-play element. It might also be effective to test the power card strategy combined with another strategy. This might help in the generalization phases because they can stand as a reminder of what was taught during the initial interventions.

Many adolescents with ASD must be taught conversation skills because they are practical, functional life skills that they could utilize every day. This skill set can help people build strong relationships with their peers which is vital for anyone regardless of their ability level. Developing conversation skills is a strong foundation on which individuals can build other social skills that will help them strengthen their relationships with the people they interact with. It would be beneficial if conversation skills were taught using methods such as these in the

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special education setting or with a behavior specialist in a more widespread manner. Overall, ABA is a valuable tool for educators and therapists working with adolescents with ASD as it can help them develop essential communication skills and improve their ability to interact with others.

Chapter III: Implementation

During this research process, I learned a lot about individuals with ASD such as how ABA is implemented, and how it can be utilized to teach social skills. I thoroughly enjoyed this research, and it solidified my decision to pursue a master's degree in ABA. Additionally, I gained some valuable insights and helpful strategies I can use in my future classroom. ABA is incredibly effective and should be utilized by teachers and behavior specialists alike to teach adolescents with ASD conversation skills.

It is vital for everyone, especially individuals with ASD, to develop and cultivate conversation skills. Adolescence is already a difficult age, particularly from a social standpoint and one of the common characteristics of individuals with ASD is struggling with social cues, situations, and conversations. This makes the research in these studies even more important because they are working to find effective methods for teaching conversation skills to a group that is struggling with this specific skill both because of their age and because of their diverse needs. It is important for people, particularly in the school system, who work with these students who have ASD to teach these skills so that they can be more successful with their peers and in building relationships both in and out of the school environment.

Therefore, teachers, specialists, and other individuals who work with adolescents who have ASD would benefit from having the appropriate resources, training, and knowledge of the

most effective methods to best help their students. Three specific studies stood out to me during my research, and they utilized methods that I want to use in my future classroom and would recommend to others (Kassardjian et al., 2013; Murphy et al., 2018; Stauch et al., 2018). However, all individuals are different, have different needs, and might respond to different methods so it is important to keep in mind the specific individual when selecting methods to utilize. Moreover, the three studies that had ideas and methods I plan to utilize are the teaching interaction procedure, the superhero social skills program, and video-based group instruction (Kassardjian et al., 2013; Murphy et al., 2018; Stauch et al., 2018).

The first study utilized a teaching interaction procedure and it demonstrated itself to be effective. All the participating individuals were able to generalize the skills they were taught to their natural environment (Kassardjian et al., 2013). The teaching interaction procedure is well structured and typically used in a specific social or educational setting. It has a set of steps that can be followed to help break down and teach individuals different skills. First, the target skill is identified, then that skill is broken down into smaller more manageable steps or prompts. After the prompts are presented to the individual and when they demonstrate the skill, the skill is reinforced. As they progress and they demonstrate mastery of the skill, the prompts are gradually faded out and the individual can perform the skill independently.

The way that this approach is structured is very appealing because it is so organized. It appears to be an easy-to-follow process and frequently when teaching skills and content, students learn when prompted in a specific way, and then only utilize it in the classroom when necessary. However, with this method, because of how the prompts faded out, the individuals can generalize the skill to use it outside of the context that it was taught in. This could be an effective method that I could use in my future classroom, especially when teaching specific skills. I like

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the strong organized approach and I think students benefit from this type of approach. From what I have observed in the classroom, it would be beneficial for a majority of the students I worked with to break down the skills they are learning into these more manageable parts. Sometimes the larger skills feel overwhelming or are complicated and this causes students to get frustrated and struggle. This could be avoided if the skills were broken down and as the students completed the parts they were reinforced. If teachers, myself included, received some training or a little more instruction, this seems like a method that could be easily implemented.

The second study researched the effectiveness of the Superheroes Social Skills program with middle school-age students who have ASD (Murphy et al., 2018). The results of this study were improved skill accuracy within the training setting as well as improved skill accuracy in the classroom environment (Murphy et al., 2018). While all the individuals in this study were able to demonstrate generalization to the classroom environment, there was no data to support that the individuals could generalize the skills to any additional environment either because the researchers did not measure it or because the individuals could not. Nonetheless, some aspects of this study could be useful in my future classroom.

One of the features that was unique to this study was the incorporation of students' interest in superheroes. Individuals with ASD often have very specific interests and by incorporating those interests into lessons and methods for teaching conversation skills they might be more invested and motivated to learn the skills and participate. Including students' preferences is a great way to boost engagement and motivation.

Another feature that could be easily utilized in my future classroom is the idea of video modeling. In the Superheroes Social Skills program, the students watched videos of the superheroes modeling and explaining the target social and conversation skills and they were

receptive to this method because they demonstrated at least partial generalization of the skill (Murphy et al., 2018). Video modeling is a great method for teaching skills because, like in the teaching interaction procedure, it breaks the skill down into smaller steps. The students are watching the skill in broken steps and the explanation for it. Then the students watch what the skill looks like in action. The structure of this approach and the accompanying visual for the students to watch is a great method that teachers could implement in their classroom either by making the videos themselves, finding them, or trying to mimic the structure of the video, when teaching the skills in person. If students were working on different skills the teacher could find or make videos that cater to the skill each student is trying to learn. That way the students could watch them on their own for more individualized instruction and then come together to practice the skills they are learning as a group. It is a flexible but well-structured method that could be implemented in different ways.

The third study utilized video-based modeling (Stauch et al., 2018). What sets this specific study apart from the others is that the entirety of the method was done in a small group setting and still proved to be incredibly effective and facilitated generalization. Almost all the other studies included had the students working individually with the person teaching the skill for most if not all of the procedure. However, in a realistic classroom setting, both for self-contained and inclusion/resource, one-on-one intensive instruction is not always feasible. It is reassuring that the results indicate that the skills can be taught using video modeling in a small group setting and positive results can still be attained. Between this study and the last, video-based modeling is an effective method that could be utilized in a variety of settings and because of its flexibility and structure.

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In my future classroom, I plan to teach social skills, particularly conversation skills to all students who are struggling with it, not just those with ASD. The methods used in ABA are effective to accomplish this. I gathered great ideas that I feel confident I can implement. Once I learn about my students and find which methods will best suit them, I can research even more in-depth the specifics of implementing them. I am looking forward to beginning this process.

Before beginning this process, I was interested in ABA and considered pursuing a master's in this area. This research has solidified my decision to do this. I am very interested in ABA, and I would love to become certified to offer more services to my future students and be more equipped to implement the methods I explored above. Additionally, I am interested in learning the specifics behind why these methods are effective, particularly with individuals who have ASD, and exploring other methods that are utilized and skills that are taught.

Learning more about ABA and working with individuals who have ASD is something I am very passionate about and during this research process, I learned a great deal. ABA has different methods for teaching conversation skills to individuals with ASD, all of which are effective to slightly varying degrees. As the field of ABA and its usage continues to grow and more is learned about individuals with ASD there will be more to research and explore in this field, and I hope to be a part of that.

References

- Bambara, L. M., Cole, C. L., Kunsch, C., Tsai, S.-C., & Ayad, E. (2016). A peer-mediated intervention to improve the conversational skills of high school students with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 27, 29–43. <https://doi.org/10.1016/j.rasd.2016.03.003>
- Davis, K. M., Boon, R. T., Cihak, D. F., & Fore, C. (2009). Power cards to improve conversational skills in adolescents with Asperger syndrome. *Focus on Autism and Other Developmental Disabilities*, 25(1), 12–22. <https://doi.org/10.1177/1088357609354299>
- Dotson, W. H., Leaf, J. B., Sheldon, J. B., & Sherman, J. A. (2010). Group teaching of conversational skills to adolescents on the autism spectrum. *Research in Autism Spectrum Disorders*, 4(2), 199–209. <https://doi.org/10.1016/j.rasd.2009.09.005>
- Gunn, K. C., & Delafield-Butt, J. T. (2016). Teaching children with autism spectrum disorder with restricted interests. *Review of Educational Research*, 86(2), 408–430. <https://doi.org/10.3102/0034654315604027>
- Gutman, S. A., Raphael-Greenfield, E. I., Carlson, N., Friedman, R., & Iger, A. (2012). Enhancing social skills in adolescents with high functioning autism using Motor-based Role-play Intervention. *The Open Journal of Occupational Therapy*, 1(1). <https://doi.org/10.15453/2168-6408.1019>
- Hood, S. A., Luczynski, K. C., & Mitteer, D. R. (2017). Toward meaningful outcomes in teaching conversation and greeting skills with individuals with autism spectrum disorder. *Journal of Applied Behavior Analysis*, 50(3), 459–486. <https://doi.org/10.1002/jaba.388>
- Ivy, J. W., & Schreck, K. A. (2016). The efficacy of ABA for individuals with autism across the lifespan. *Current Developmental Disorders Reports*, 3(1), 57–66. <https://doi.org/10.1007/s40474-016-0070-1>
- Kassardjian, A., Rudrud, E., Taubman, M., Leaf, J. B., Edwards, A., Schulze, K., McEachin, J., & Leaf, R. (2013). Utilizing teaching interactions to facilitate social skills in the natural environment. *Education and Training in Autism and Developmental Disabilities*, 48(2), 245–257. <https://www.jstor.org/stable/23880643>
- Murphy, A. N., Radley, K. C., & Helbig, K. A. (2018). Use of superheroes social skills with middle school-age students with autism spectrum disorder. *Psychology in the Schools*, 55(3), 323–335. <https://doi.org/10.1002/pits.22104>
- Peters, B., Tullis, C. A., & Gallagher, P. A. (2016). Effects of a group teaching interaction procedure on the social skills of students with autism spectrum disorders. *Education and Training in Autism and Developmental Disabilities*, 51(4), 421–433. <http://www.jstor.org/stable/26173868>

- Rao, P. A., Beidel, D. C., & Murray, M. J. (2007). Social skills interventions for children with Asperger's syndrome or high-functioning autism: A review and recommendations. *Journal of Autism and Developmental Disorders*, 38(2), 353–361. <https://doi.org/10.1007/s10803-007-0402-4>
- Stauch, T. A., Plavnick, J. B., Sankar, S., & Gallagher, A. C. (2018). Teaching social perception skills to adolescents with autism and intellectual disabilities using video-based group instruction. *Journal of Applied Behavior Analysis*, 51(3), 647–666. <https://doi.org/10.1002/jaba.473>
- Wattanawongwan, S., Ganz, J. B., Hong, E. R., Dunn, C., Yllades, V., Pierson, L. M., Baek, E., & Foster, M. (2022). Interventions for improving social-communication skills for adolescents and adults with ASD: A meta-analysis. *Review Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s40489-021-00300-8>
- Wyman, J., & Claro, A. (2019). The UCLA Peers School-based program: Treatment outcomes for improving social functioning in adolescents and young adults with autism spectrum disorder and those with cognitive deficits. *Journal of Autism and Developmental Disorders*, 50(6), 1907–1920. <https://doi.org/10.1007/s10803-019-03943-z>