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Jenna Burkhalter

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Listening to the Teacher Voice: Best Practice for Students on the Autism Spectrum

Jenna Burkhalter

University of Portland

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Abstract

Recently, teachers have been seeing an influx of students with autism spectrum disorders (ASD) in their classrooms. As this number increases, it is important that these teachers and teacher leaders be aware of the advances in the field regarding methods of working with children with ASD. Some of these practices are written down and published online for the public, but others are only found by accessing the authentic experiences of teachers who developed best teaching methods throughout their careers. This study seeks to be a resource for current educators and pre-service teachers in inclusive classrooms, sharing best practices working with students with autism. A literature review and teacher interviews were conducted exploring what designated special education and inclusive classroom teachers consider best practice in teaching elementary-age students with autism. Results indicated that effective teaching methods include a focus on consistency, visuals, and relationships. Participants communicated a lack of resources available for teachers to learn about teaching students with autism and that their practices were developed through observation and personal investigation. Participants emphasized teacher workshops and collaborating with colleagues as suggestions for improving teacher education on working with students with ASD.

Keywords: autism, inclusive classrooms, best practice, autism spectrum disorder

Listening to the Teacher Voice: Best Practices for Students on the Autism Spectrum

Inclusive classrooms have, in recent years, become increasingly popular in the education system (Von der Embse, Brown, & Fortain, 2011). Laws put into place such as the Individuals with Disabilities Education Improvement Act dictate that the “least restrictive environment” be used for each student, meaning that many students with disabilities are being placed in general education classrooms with their neurotypically-developing peers as opposed to being in a special education classroom (National Center for Learning Disabilities, 2006, p. 36).

This research focuses specifically on autism spectrum disorder (ASD), a developmental disability that can significantly impact communication, social relationships, and behaviors, with symptoms manifesting in early childhood and creating challenges in daily functioning (Reynolds & Kamphaus, 2013). Von der Embse et al. (2011) noted in a recent review that effective methods for teaching students with autism involving inclusion are very rare, meaning that classroom teachers searching for resources may struggle to come up with best practices to implement. Best practice, for the purpose for this work, is defined as a method identified in peer reviewed literature or considered by specialists and expert practitioners from the field as being effective in teaching students with autism, and it is understood that teachers will often modify a best practice to meet the individual needs of each student. The literature is lacking the teacher voice on best practices: in-service educators who have experience working with students with autism providing insight on what has worked for them, how they choose what methods to use with students, how they learned about these methods, and what they think will help more teachers become aware of how to work with students with ASD. It is imperative for educators to learn about best practices so that they can meet the diverse educational needs of all of their students,

and this study aims to discover the pedagogy of experienced teachers, with connections to available literature, in order to enhance understanding about teaching students with autism.

Literature Review

There is a large amount of literature recommending best methodology for working with students with ASD by a variety of researchers. The seven articles chosen for this study gave many different answers to what is believed to be best practice or practices in teaching students with autism. While each author offered different strategies and techniques, they all emphasized themes of consistency, incorporating visuals, forming relationships, or a combination of these. All articles were published between 2010 and 2018, providing a recent and relevant survey of the research. Articles were peer-reviewed and the content was specific to elementary-age students.

Several authors emphasized peer interaction as a basis for both social and academic learning. Dialogue and communication amongst students are valued as ways to promote social skills and increase personal growth (Nouri & Pihlgren, 2018; Ramos de Bittencourt, Carmargo, & Schmidt, 2018). A research investigation in 2018 by Nouri and Pihlgren presented data that students use inquiry in dialogue as a way to understand interactions and communications, drawing links to the kind of Socratic questioning used in cognitive therapy to examine emotions and situations for patients. The Socratic Seminar model suggested by the authors examines the concept of assigning meaning, implying that all children can learn through questioning and interacting with those around them because it will lead to understanding. This practice developed in response to the lack of results shown by programs for children with ASD focused on increasing empathy and social competence, to which students were unresponsive and in which they lacked interest (Nouri & Pihlgren, 2018).

Ramos et al. (2018) recorded their own opinion on peer relationships and shared a similar idea of interaction as the root of development. Their practice includes the mediated social interaction incorporated into the Socratic Seminar model, but as a form of promotion and reinforcement for behavior rather than as an agent for academic questioning, although the authors say this approach will also improve the academic skills of students with ASD (Ramos et al., 2018). The difference between the two was that while the Socratic Seminar method recommended by Nouri and Pihlgren in 2018 was presented as an activity for a group of students who were all impacted by autism, the Peer-Mediated Interventions suggested by Ramos et al. (2018) are meant for use between students with ASD and their neurotypically-developing peers. The methodology of Ramos et al.'s (2018) Peer-Mediated Intervention strategy comes from the belief that: "Child development depends fundamentally on social interactions with socially more competent classmates" (p. 3). While both articles promoted peer interaction, one used a more inclusive environment than the other, although I believe that the Socratic Seminar method could be implemented in an inclusive classroom as well.

A 2016 research study by Tekin-Iftar and Olcay-Gul offered another classroom practice focusing on an intervention called "simultaneous prompting procedure" (p. 451), in which students go through both instructional and probe trials. The study was meant to examine if simultaneous prompting procedure coupled with instructive feedback and "observational learning stimuli" would improve student academic skill maintenance (Tekin-Iftar & Olcay-Gul, 2016, p. 451). The prompting was designed around a target skill for each student in the trial, and each were asked questions that were rewarded with verbal reinforcement for correct answers, while "incorrect responses resulted in ignorance throughout the sessions" (Tekin-Iftar & Olcay-Gul, 2016, p. 455). The observational learning stimuli involved students observing their

classmates as a way of behavior modeling, and the researchers specifically argued that instruction efficiency would increase if students had the ability to watch their peers because they could learn the target skills of other students alongside their own. This methodology was found to be effective when delivered in a small group (Tekin-Iftar & Olcay-Gul, 2016). The concept of learning from peers discussed in this article was widely cited in the literature, with prompting and verbal reinforcement being mentioned by Von der Embse et al. (2011) when explaining discrete trial training as a process of teaching skills that are acquired socially with which a child with autism may struggle.

A 2011 literature review conducted by Von der Embse et al. (2011) reviews research that offers effective interventions to use with students with ASD in the inclusive classroom setting. Articles reviewed suggest themes of social skills training, behavioral approaches, tiered models of service, and functional behavioral assessments, and emphasized that peer modeling has many social benefits and decreases in negative behaviors by students. This article also mentioned the use of social stories, both paper and electronic, as positively influencing student behavior in the classroom amongst their peers (Von der Embse et al., 2011). According to the National Autistic Society (2018), social stories are defined as “short descriptions of a particular situation, event, or activity, which include specific information about what to expect in that situation and why.” This method of instruction is used to teach appropriate and pro-social behavior options to students when in different social situations. The benefits of social stories discussed by Von der Embse et al. (2011) were found to yield positive results in other literature as well (Sani-Bozkurt, Vuran, & Akbulut, 2017).

In 2017, Sani-Bozkurt et al. published a paper about a program called Cordova that was designed in order to make social stories more widely available for students with ASD, giving

them the opportunity to learn via both audio-visual and verbal stimulation. Cordova gave students the opportunity to be active in their social stories by being able to start, stop, or edit it themselves, rather than passively reading it on paper. Sani-Bozkurt et al. (2017) stated that this level of interaction would lead to “a more authentic learning experience” for the student and make the situations resemble real life (p. 3). The program received positive feedback and was further enhanced by incorporating peer interaction where students model how to use it for their classmates (Sani-Bozkurt et al., 2017).

Sani-Bozkurt et al. (2017) were not the only academics who researched the advantages of technology in working with students with autism. A study by Yakubova, Hughes, and Shinaberry (2016) presented results on another technological option to increase effectiveness of teaching, using video modeling coupled with an instructional method known as “concrete-representational-abstract sequencing” (p. 2349). Concrete-representational-abstract sequencing goes through a process of students performing an action, visually seeing it, and then taking the information and making it abstract. The study was focused on mathematics because researchers stated that the abstract concepts used in math can confuse students with ASD, so using visuals to help scaffold the concepts can be helpful. Yakubova et al. (2016) stated this methodology takes the easier to understand non-symbolic skills and transform them into the abstract skills needed in math. Instead of using paper visuals in this sequencing, they used technology because “many students with ASD find technology engaging and spend more time on activities presented via technology” (p. 2350). The results of the Yakubova et al. (2016) study indicated that this technological approach was well-liked by students, demonstrating the successes of technology when working with students with ASD.

The use of visuals as a best practice has been mentioned repeatedly throughout the literature in the form of video-modeling, social stories, and even peer-modeling for behavioral purposes. An article published in 2013 listed techniques and modifications pertaining to working with students with autism including numerous suggestions involving visual cueing and pictures, similar to the function served by social stories (Deris & Di Carlo, 2013). Deris and Di Carlo (2013) also included information on how educators should teach in inclusive classrooms in order to best support all of their students, placing emphasis on the practices of using auditory, visual, and tactile modalities during instruction. The authors also mentioned making use of a quiet area in the classroom for students to use for calming down. Deris and Di Carlo (2013) further discusses schedules and transitions, emphasizing that schedules should be predictable, and all transitioning should be done with a forewarning and should be implemented using visual cues. They also suggest distracting students from possibly overwhelming stimuli during transitions through teacher behaviors such as singing. The article also emphasized noticing what the student likes and capitalizing on it in order to interest them and improve social skills (Deris & Di Carlo, 2013). Each participant interviewed for my study also stressed the importance of knowing a student's aversions and interests in order to best engage them in the classroom and create a good relationship with them.

Research Study

The study involved semi-structured interviews with three practicing teachers with experience working with students on the autism spectrum. Participants were given a statement regarding the purpose of the study and asked for their voluntary involvement at least a week prior to the interview. They were also asked to sign a consent to participate before the interviews occurred. Interviews were conducted using procedures from Cresswell and Poth (2018) with

advisement and guidance from a University of Portland faculty mentor. Interviews were performed in-person by the principle researcher and consisted of five questions: What strategies have you found to be best practice in teaching your students with autism?; why do you think these methods are so effective?; how did you first come to learn about effective strategies to use with students with autism, and how do you decide whether to use particular strategies with your students?; and, in your opinion, how could effective practices working with students on the spectrum best be developed and shared with all teachers and caregivers who seek to improve learning for their own students? Follow up prompts from the researcher were occasionally made in order to clarify responses or for elaboration. Before the interview began, participants were granted the opportunity to ask any questions that they might have regarding the study or the interview process itself. With permission of the participant, interviews were audio recorded and later transcribed verbatim by the principle researcher. Analysis followed first and second cycle coding as outlined by Saldaña (2016) and the results are presented in Table 1. At the end of the study, the recordings and transcriptions were permanently erased, and each participant was provided a print copy of the final report. The names and places of employment of the participants in the study were kept confidential throughout the research process and participants and workplaces are not identifiable in the final paper.

The participants in the study are referred to as Teacher A, Teacher B, and Teacher C and represent a purposive sampling process of convenience. Two of the teachers were chosen via recommendation to the principle researcher from special education colleagues and one was working with the researcher at the time of the study. Teachers A and B both worked in Learning Centers and had pull-out schedules for students with varying abilities. Teacher A had the most experience working with students with autism who were high-functioning. Teacher B had years

of experience working with students who were severely impacted by autism as well as those who were less impacted. Teacher C was an inclusive classroom teacher who had previously taught students with autism in her classroom, and while she did not have a lot of classroom experience at the time of the study, she was highly praised by colleagues for her work with these students. From the analysis of the interviews with participants, three themes emerged: Pedagogy, Effective Relationships, and Teacher Education.

Pedagogy

Under this theme, three major categories were recognized. The first category was “Routine,” and each teacher expressed the importance of this factor for working with a student with ASD. Teacher B:

I would always go into classrooms that were already functioning and going pretty well, and so I could see how it looked when things worked well. And it was always with a very, very routine-based day. So, they had a lot of structure, a lot of routine, and it was just the same every day.

Teacher C agreed with this strategy, implying that routine reduces anxiety for all students, but students with autism especially. Both of these teachers mentioned that they used very detailed schedules in their classrooms and provided as much structure as possible to their days.

However, Teacher C disagreed with the use of personal visual schedules. These schedules are often taped to the student’s desk and are designed according to the needs of the student. They can involve detailing the daily schedule in writing or using pictures to convey what the student is doing and when, sometimes including pictures of analog clocks with the hands displaying the time of each transition. Although Teacher C prints these personal visual schedules out for her students who have it in their IEPs, her students have never used them for their actual purpose: to

help them transition smoothly from one activity to the next. She says that this is most likely true for all students because they have no part in the design of their schedules, so they have no connection to them. Instead, she created a new method to implement with one of her students:

What I started to do was I made him our ‘Schedule Master,’ so he comes up to the board after everything we do and he checks it off and then he announces what’s coming up next. [...] And then he sort of is in charge. Like it gives him a sense of control as to what’s happening in our day.

The consistency of a routine was also frequently mentioned by Teacher C, who brought up that she communicates almost daily with the families of the students in her class with autism so that home and school will have the same skills, expectations, and language; this has proven to be very effective with her students. All three participants in this study also mentioned one or more of the following characteristics and subcategories when discussing schedules and transitions:

“predictable,” “forewarning,” “consistent,” and “planning.”

The second category recognized by the researcher under this theme was the use of visuals in the classroom. Each participant discussed using visuals in some way. Teacher B stated that visuals were so effective with students with ASD because it “gets them the information in a way they can understand.” She also mentioned that visuals were extremely beneficial when students were nonverbal or could not read yet. Teacher A commented that the placement of the visuals is also very important, and that she likes to use color-coding to make things clear for students.

One way Teacher C incorporates visuals into her classroom is through the use of behavior charts. Teacher C mentioned that for one of her students, a behavior chart is very important, and it gives options as to things that he can do when he is feeling anxious or agitated.

I can refer him back to that. Say: ‘You don’t look ready to learn, let’s go back to our chart.’ And I do not allow him to be in the classroom if he is not acting like a student. So, if he is yelling at me, grunting, making facial expressions, rolling on the floor, hitting himself, sleeping, anything—he cannot be in this room, he needs to take a break, go to the nurse’s office, see the counselor. He needs to take steps to re-engage.

This method helps her student differentiate what is a learning space, and she says that her students learn how to take steps to be able to learn when given this sort of distinction and responsibility for their actions.

The third category under the theme of “Pedagogy” was instructional methods, and it encompassed the plethora of techniques that the teachers used with their students with autism. Commonly mentioned by Teachers A and B were social stories, which were previously discussed by Sani-Bozkurt et al. (2017) and Von der Embse et al. (2011). Teacher B added that some of the value behind a social story is how direct it is and how it helps the student understand the concept of: “I am going to do this cause I want this to happen cause if I don’t do this then this happens and I don’t want that outcome.” Teacher B also indicated that social stories are important because they can allow students to imagine themselves in the situation being depicted. One of the benefits of an on-paper social story for a teacher versus an online social story, she said, is that you can “rig them on the spot” as soon as the behavior occurs and address it immediately. None of the participants in my study mentioned using technological resources, indicating that they relied more on interactions and physical manipulatives rather than digital visuals to work with students. It is not known whether they had the hardware and network capabilities to utilize the technological resources.

Teachers A and C also discussed that social skills can be further developed with a student when they are taught to read facial expressions. Teacher A said that this ability helps students remember what expected positive interactions might look like when talking with their peers because the reactions are more organic compared to a scripted conversation between her and the student. Teacher C commented that her students are often reactive to her facial expressions, so she tries to keep her expression as neutral as possible, but still works with students on the meaning of expressions. She uses conversations with them as well to further work with them on expressions: “I’ll be like, ‘Your face tells me you’re really unhappy right now.’”

Other methodology emphasized by Teachers A and B (it should be noted that neither of these educators currently work in an inclusive classroom) was the impact of peer interaction on their students with ASD. In the literature, peer interaction was also indicated to be beneficial to students in the practices that they offered, and Nouri and Pihlgren (2018) stated that this inclusion is the basis for development (Nouri & Pihlgren, 2018; Ramos et al., 2018; Sani-Bozkurt, 2017). Teacher A was a big proponent of the approach of inclusion and peer interaction so that students with ASD could learn from neuro-typically developing students’ behavior. While it was not brought up specifically by the other two teachers, Teacher B did discuss students with ASD observing the behaviors of their classmates and often needing her to help them understand these behaviors. However, neither teacher mentioned peer interaction to improve academic learning.

Effective Relationships

When it comes to relationships, all three teachers agreed that they were some of the most important things for teachers to develop with their students. Teachers A and B both commented that all students are very relationship-based, with Teacher B even stating that the trust that a

relationship brings is what helps the most when students are having a very difficult time. Teacher A brought up that every behavior communicates something, and Teacher C agreed, stating that a teacher needs to ask themselves why a student is behaving in such a way and what they may be hoping to receive from the behavior. Once those questions can be answered, then supports for that student can be targeted where they need to be. Behaviors can also be misinterpreted by educators. Teacher A mentioned that one of the most valuable things a teacher can do is consider the needs of a student: “It looks like the kid has a behavior issue when it’s really a teacher not considering the needs or the student not being able to articulate his or her needs.”

When students are exhibiting certain behaviors, Teacher A said that sensory input is very important. She likes to make use of techniques such as deep touch (so that students can feel grounded), wall pushups, and weighted items such as blankets, vests, or backpacks. Teacher B stated that behaviors can also come off as frustration or anger, when in reality it can be caused by fear or anxiety. She found that with students who were upset that it was effective to give a verbal cue such as: ““You’re okay, I hear you, you’re frustrated.”” Teacher C found that a way to prevent behaviors was by scheduling regular check-ins with one of her students. The student has a small schedule with times throughout the day when she would spend a couple of minutes with them giving just one-on-one attention: “If he starts to have a meltdown, . . . I can be like, ‘Hey, when’s our next check-in?’ And he’ll get his little schedule and look at that.”

Each teacher also mentioned involving the family of a student, with Teacher A pointing out that parents know their kids the best and can offer great input on aversions, a student’s interests, and their typical home schedule. One of the most important parts of a relationship with a student is knowing them so that strategies are always tailored to their needs and their aversions and dislikes are properly taken into account. Knowing your student also means understanding

their capabilities and providing them with opportunities for success. Teacher C mentions that her students who were “really severe on the autism spectrum were capable of so much more than they were ever asked to do.” Teacher B stated that just like any other person, students with ASD need to be understood, with Teacher C commenting that students need to feel useful and like members of the community. She gives her students classroom jobs to make sure that they feel included.

When developing new practices for working with their students with ASD, each participant indicated using their relationship with and knowledge of a student to influence their strategies. Teacher A stated that it was important to her to use anecdotal data from previous teachers and evaluations, and Teacher C was in agreement but added that educators should be wary of outdated information. Teachers A and C both mentioned that one of the ways that they came up with their best practices was through trial and error, because no one method works for all students, nor does a strategy always continue working all year. However, most of the practices involve reading social cues and communicating. Each participant concurred that every student is different and no one strategy will work for everyone, because all students have different abilities. Teacher A mentioned that not all students even fit into the mold of what autism is considered to look like, but that these methods can work for any student, with or without autism.

Teacher Education

Three categories were distinguishable under the theme of teacher education, which is defined for this study as teacher preparation programs such as those offered at the university level. Each participant brought up current problems with how we educate teachers about autism, ways to improve teacher education, and the importance of collaborating with and learning from

other teachers. The participants each brought up their own college education when discussing how they learned about autism, but Teacher A commented that there were no classes at her graduate school that were about autism, and that while the neurology behind it may have been mentioned during her undergraduate education, there was no practical application she could recall. Teacher C actually talked with her professors about the lack of training on how to work with students with ASD. But she says that now that she has worked with students on the spectrum, she understands that not everything will work for every student, so it would be difficult to label strategies and methods as most effective and teach those. Teacher A also said that research in the area of teaching methods for students with autism is always changing, so it is difficult to keep track of new advancements in the field.

However, one of the issues with the lack of teacher training is that teachers are having to react to behaviors more than just prevent them. As Teacher A put it: “I think I learned too late [about how to work with students]; it was kind of like a reaction to having a student with autism.” Other struggles participants felt teachers may run into include lack of experience and time to learn. Teacher A mentioned that if teachers in inclusive classrooms are taught to work with students with ASD, they might not have to learn on the spot when they suddenly have a student with autism. Training sessions are one of the biggest ways to improve teacher education, according to Teacher A. There is a lot of misinformation circulating about best practices for students with ASD, and because most teachers do not have time to take a class, Teacher A suggested that mandatory workshops from specialists be brought into schools, perhaps on in-service Professional Development Days. On these days, teachers are asked to come in and engage in team-building activities and workshops with school staff to learn and share about ways to improve their practice. She said that training should also be constant and ongoing to keep up

with changing research: “We have to hear it because these kids are in our class.” But she also mentioned that many parents need to have information on autism as well, and that knowledge needs to be available to them, perhaps from their child’s pediatrician or a specialist.

Teacher B had different ideas on how to change our teacher education on autism, including using books, newsletters, conferences, and, in this technological age, online forums. If there was anything she could have had when she was first learning about how to work with students with ASD, she said that it would be an online forum, because people can ask and answer questions and read about different experiences and ideas. However, conferences are also very helpful: “It’s always great to be able to talk to other people that are doing what you’re doing and interested in what you’re interested in.”

Teacher C’s opinions on improving teacher education emphasized the importance of teacher collaboration, which was also mentioned by the other two participants. In fact, one of the best things she said a teacher can do is see the system that another colleague has put into place, even though it can be difficult to find the time to do this: “Having people, colleagues come in to observe I find to be really valuable because they’re seeing how the child’s reacting to you; you don’t have eyes for them all day long.” Teacher B stated that she learned the most from doing practicum work in other classrooms: “It was the best education, to go tromp about in a bunch of different classrooms and see how different teachers do it.” But meeting with teams of other educators in order to gain new perspectives is also a great resource for a teacher. Group meetings with colleagues, specialists, and other classroom teachers were brought up by each participant as one of the best ways to learn new methods and brainstorm interventions for students. Other helpful members of the team to give the teacher more information are the parents of the student and the school psychologist.

Analysis

In analyzing the data from the literature and interviews, incorporating visuals of some sort emerged as the most common strategy for teachers to use with elementary-age students with autism. Teachers emphasized the use of visual schedules and modeling as two methods for incorporating visuals into the classroom. Social stories, meaning using visuals to demonstrate the situation as opposed to solely verbal explanation, were mentioned as being helpful to work on social skills with students on the spectrum, and one participant said that this was because social stories can explain a situation to a student in a way the student can understand. Both participants and the literature said that peer interaction and inclusion are extremely helpful for students, and all three participants in the study brought up needing to know the student and individualizing their education, which is supported in the literature (Deris & Di Carlo, 2013). Participants said that peer interaction was especially valuable because students are given the opportunity to practice communication and social cues, as well as observe peers who can model behaviors for them.

While it was only suggested by one of the articles reviewed for this study, structure and routine was listed as an important practice to reduce anxiety in students and decrease behaviors by all participants. Several participants indicated that when their students became anxious, their behavior would often become aggressive, involving actions like yelling, grunting, and hitting themselves. When the anxiety in a situation decreased, participants saw that the adverse behaviors decreased as well. Creating structure, routine, and charts were indicated as the best ways to decrease anxiety, with one participant even including a student with autism in her classroom's daily schedule review in order to increase its meaning for him and serve as a reminder of what activity comes next in the day.

To improve teacher education in the future, Teacher B suggested that resources for teachers should be made available through forums and literature. But it was noted that all three participants valued resources that went beyond physical, in the form of observation and collaboration. In order to address the challenges in teacher education brought up by the participants in this study, administrators might consider scheduling time during the work day for teachers to observe in other classrooms, or putting together mandatory trainings done by autism specialists. Participants said that through observation, not only can the observer learn about new practices, the teacher being observed can learn about ways to improve their own practice as well. A participant also stated that mandatory trainings for all teachers were important due to the number of students with ASD coming into classrooms and the lack of preparedness of teachers. Administrators can use this information to put together ways to educate teachers about working with students with autism, as well as stay informed themselves about new additions to the field of teaching students with autism.

Participants also brought up the importance of teachers collaborating with colleagues in order to develop and share new practices, and how vital it is to increase teacher education through pre-service training and in-service professional development, so that educators are better prepared to work with students with autism. Beyond collaboration, participants brought up observation of other teachers as being beneficial for learning new methodology. While it is understood that individualizing instruction for each student relies heavily on knowing their interests, aversions, and home practices, teachers in this work strongly believed there was considerable value in expert modeling and time to de-brief work experience with colleagues.

Conclusion

The purpose of this research study was to compile evidence-based teaching methods and find what was considered to be best practice for teaching students with autism for educators working in inclusive classroom environments. This was accomplished through a literature review and interviews with three teachers with experience working with students on the spectrum. While common best practices in instructional methodology became apparent, it is necessary to include that, as mentioned both in the literature and by participants, every student is different and what works for one child may not work for another or even continue working throughout the school year. The practices included in this study cover a range of ideas but certainly not all of them, and educators are encouraged to go beyond this study and review additional practices to use as resources when working with students with ASD. Adding to the results of this study could involve investigating best practice in relation to student gender, expanding the number of participants, and including questions that probe deeper into the issues raised here.

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Table 1
Cycle 1 and 2 Coding of Participant Interview

Cycle 1	Cycle 2	Themes
Forewarning	Routine	Pedagogy
Consistent		
Structure		
Transition		
Schedule		
Color-Coding	Visuals	
Modelling		
Picture Schedule		
Behavior Chart		
“Understandable”		
Social Stories	Methodology	
Reading Faces		
Specificity		
Differentiation		
Peer Interaction/Inclusivity		
Trust	Relationship	Effective Relationships
Needs Being Met		
Relationship-Based		
Parent Communication		
Check-ins		
Aversions/Interests	Knowing the Student	
Misinterpretation		
Behavior Communicates Things		
Anecdotal Data		
Provide Success		
Individual Strategies	Every Student is Different	
Understand Abilities		
“What Autism Looks Like”		
Need for Understanding		
Trial and Error		
Lack of Training	Current Problems with Teacher Education	Teacher Education
React vs. Prevent		
“Learned Too Late”		
Undergraduate/Graduate Education		
Supports for Teachers		
Workshops	Ways to Improve Teacher Education	
Specialists		
Online Forums		
Conferences		
Up-to-Date Information		
Practicum Work	Teacher Collaboration	
Observe/Be Observed		
New Perspectives		
Colleague Insight		
Group Meeting		