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Training Needs of Pre-Kindergarten to Second Grade General and Special Education Teachers to Include Students with Autism Spectrum Disorder

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Walden University

College of Education and Human Sciences

This is to certify that the doctoral study by

Rosana Camargo

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University

2025

Abstract

Training Needs of Pre-Kindergarten to Second Grade General and Special Education

Teachers to Include Students with Autism Spectrum Disorder

by

Rosana Camargo

MA, Walden University 2016

BS, University of Mount Union 2011

Project Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Education

Walden University

February 2025

Abstract

The problem that was addressed through this study is that general and special education teachers are not trained to include pre-kindergarten (Pre-k) through second grade students with autism spectrum disorder (ASD) in general education classrooms. The purpose of this study was to explore the training the teachers requested when including Pre-k through second grade students with ASD. The study was grounded by Vygotsky's theory of the zone of proximal development. For this basic qualitative design, semistructured interviews were conducted with five general education and five special education teachers who teach in an inclusion setting. Both the general education and special education teachers who participated in the study discussed the need for training when it comes to including students with ASD in the general education classroom. Data were analyzed through open coding and the following themes emerged: (a) General education teachers discussed the need for differentiation when including ASD students b) Teachers wanted training on the co-teaching model (c) Teachers wanted training about information on ASD (d) Teachers wanted to attend professional development (PD) on ASD (e) Teachers expressed the need for paraprofessionals when including students with ASD (f) Teachers discussed the importance of collaboration with team members. The results of this study have the potential of positive social change as teachers' needs are better addressed, including a 3-day PD for general and special education teachers. Once teachers are better trained with strategies and support, students with ASD can benefit by having their needs met. Teachers will feel they are able to include students with ASD in the classroom successfully by using co-teaching models and interventions in their classrooms.

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Dedication

I would like to dedicate this project study to my family and coworkers. Thank you to my dad Julio, who worked two jobs to put me through school. To my mom Blanca, who always believed in my academic ability even when I doubted myself. Thank you to my sister Rachel, who read to me when I was behind on my reading homework. To my brother Jason, thank you for buying me my first laptop when I went to college. Thank you to my brother Julio, for always being proud of every milestone. To my husband Sean, thank you for supporting me and encouraging me to finish every homework assignment. To my beautiful daughter Juliana, you are beautiful and smart. Jules, you are my world. I could not have accomplished any of my successes without the love and support of my family. I love you all.

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Section 1: The Problem

The Local Problem

The problem was that general and special education teachers are challenged to educate Pre-k through second grade students with ASD in general education classrooms at a Midwest school. Students with ASD could show some challenges in the classroom such as engagement, connection, and communication (Meindl et al., 2020). As great as inclusive teaching can be, too large of a class can create additional distractions for a student with ASD. According to the dean of students at the study site, students with ASD would probably struggle getting proper one on one instruction from the teacher due to the number of students in an inclusive classroom. Due to these challenges, these students are being isolated, silenced and misunderstood inside the school setting (Meindl et al., 2020). General and special education teachers have a positive attitude about using evidence-based practices (EBPs), but they are struggling to implement the practices due to the lack of confidence in using EBPs and the lack of PD (Hugh et al., 2024).

According to the principal at the study site, teachers need to learn to educate students with disabilities in an inclusive environment because some general education teachers may believe special education is a place. Special education is not a place, it is a service. Inclusive education can be beneficial to students with ASD because it can assist them with social development (Dean et al., 2021). Some early childhood teachers who want to effectively adapt their instruction for students with disabilities such as ASD may feel they do not have professional support or helpful resources (Brodzeller et al., 2018). In order to have preparedness when it comes to inclusion, a teacher should have ongoing

training and support for managing disruptive behaviors in inclusive education and they should learn how to meet their students' individual academic needs (Oliver-Kerrigan et al., 2021). To make certain teachers meet the needs of students with ASD, it is important to be educated on EBPs and to have the training and expertise to implement them with fidelity in the classroom (Layden et al., 2022). Teachers have stated they do not feel effectively prepared or trained to implement EBPs for students with ASD (Layden et al., 2022). The problem that was addressed through this study is that general and special education teachers are not trained to include Pre-k through second grade students with ASD in general education classrooms at a Midwest school.

Rationale

According to the state standards, 64.5% of students with individualized education programs (IEPs) ages 6 through 21 should be taught inside the general education classroom for the majority of the day. Students with disabilities are required to be placed in a least restrictive environment (LRE), but general education teachers were not providing services such as adapted curricula, specific instructional strategies, or instructional configurations in general education settings (McCabe & Ruppap, 2023). According to the special education compliance coach, it is unknown why the district in the Pre-k through second grade Midwest primary school has not met this state standard for the past 5 years. There are 10.49% of students with ASD in the district. But it is not clear which EBPs general education teachers, special education teachers, and paraeducators are trained to use in order to support students with ASD in the general education classroom. The EBPs used for autism services in public schools has focused on

training teachers of students with ASD in self-contained classrooms (Locke et al., 2022). There is a need to research the training general and special education teachers need in order to educate Pre-k through second grade students with ASD in inclusive classrooms at a Midwest school.

General and special education teachers are not meeting the state indicator that states that school-age students should be in a LRE for the majority of their school day. According to the principal at the study site, this state indicator is not being met because general and special education teachers are unclear about the effective teaching and behavioral methods needed for students with ASD in the general education setting; therefore, they are not prepared to teach students with ASD effectively. General and special education teachers need support on how to establish teaching roles such as what is expected of the special education teacher in general education classroom when it comes to providing interventions with students with ASD. According to an intervention specialist at the study site, the roles of the special education teacher on how to support students with ASD in the general education classroom are unclear.

The purpose of this basic qualitative study was to explore the training needed for general and special education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school. Due to the gap in practice, there is a need to research the training that general and special education teachers need in the general education classroom in order for students with ASD to learn in a LRE and benefit socially and academically. Providing teachers and administrators with training that general and special education teachers need when educating students

with ASD in general education classrooms can allow them to become more successful when teaching the students in their classrooms. The study contributes to social change by helping educators, including administrators, learn the training needed for general and special education teachers who teach students with ASD in a general education setting regarding the strategies and supports teachers feel they need in order to successfully teach students with ASD in the general education setting.

Definition of Terms

The following definitions consist of terms associated with the problem of the study.

Autism spectrum disorder: A neurodevelopmental disorder that includes deficits in social communication and social interaction, and the presence of restricted, repetitive patterns of behavior, interests, or activities that can continue from childhood to adult life (Zuvekas et al., 2021).

Evidence-based practices: The use of practices from strong research such as randomized control trials or quasi-experimental designs and research that is published in peer-reviewed journals (Mason & Trezek, 2021).

General education teacher: A highly qualified content expert (Clausen et al., 2022).

Least restrictive environment: A federal mandate under the law that states school districts should educate students with disabilities with their peers without disabilities to the maximum extent possible (Individuals with Disabilities Education Act [IDEA], 2024).

Special education teacher: A teacher who is skilled in instructional and pedagogical practices for students with disabilities. They also have an understanding of special education policy (Zarate et al., 2022).

Significance of the Study

The study may contribute to filling the gap in practice created because general and special education teachers are challenged to teach students with ASD in general education classrooms in a Midwest primary school. The EBPs general education teachers, special education teachers, and paraeducators are trained to use in order to support students with ASD in the general education classroom is unknown. The EBPs used for autism services in public schools has focused on training teachers of students with ASD in self-contained classrooms (Locke et al., 2022). The study may help educators, including administrators, learn the training needed for general and special education teachers who teach students with ASD in a general education setting regarding the strategies and supports teachers feel they need to successfully teach students with ASD in the general education setting. Administrators could apply solutions to help the teachers.

Teachers who have students with ASD in their classroom are responsible for teaching and implementing each of their students' academic and social skills (Meindl et al., 2020). The findings in this study may promote social change by helping educators learn how to teach and implement the needs of students with ASD in the general education classroom. The teachers will share the training needed in order to implement strategies for students with ASD in the inclusion environment.

Research Questions

The research questions (RQ) consist of gathering the training needed for general and special education when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school. In this basic qualitative study, five general education teachers and five special education teachers who teach in a general education setting were interviewed. The research questions were developed to help educators and administrators understand the training needed for general and special education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school:

- RQ 1: What are the trainings needed for general education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school?
- RQ 2: What are the trainings needed for special education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school?

Review of the Literature

Conceptual Framework

The conceptual framework that guided the study is Vygotsky's theory of zone of proximal development (ZPD; Vygotsky, 1962). Vygotsky (1962) explained that a learner has a current or actual level of development and that there is a next level development that can be reached by implementing semiotic and environmental tools and peer collaboration. ZPD could help individuals or teachers learn best through collaboration

with skilled people or educators. When ZPD is applied, a more knowledgeable individual helps by providing support and collaboration to an individual who is in a developmental stage. The more knowledgeable individual helps until the learner has internalized the new skills and can independently apply the skills without any support (Hernandez & Bendixen, 2023). The teachers can learn and utilize new concepts and skills from the skilled professionals (Xi & Lantolf, 2021).

Teachers should continue to achieve their next level of development in order to become more advanced in their teaching profession (Vygotsky, 1962). Teachers can reach the next level by using scaffolding (Vygotsky, 1962). Scaffolding is when experienced mentors guide students through the tasks in their ZPD (Kusmaryono et al., 2021). If teachers are having difficulty including students with ASD, they can use their experienced colleagues for help (Xi & Lantolf, 2021). Scaffolding can be used when a teacher learns new strategies about the inclusion of students with ASD from a knowledgeable professional; they apply the strategies while the professional is observing in the classroom, collaborate with the professional after the observation then the teacher can adapt their instruction with any given feedback (Xi & Lantolf, 2021). The teacher will eventually independently apply what they have learned in their classroom without assistance. Teachers can also use imitation when educating students with ASD. The teacher can observe a knowledgeable person teach in an inclusive environment then apply what they learn and imitate the skills in their classroom (Xi & Lantolf, 2021).

This conceptual framework supports the idea that teachers need to continue teacher preparation and learning throughout their career. Interviewing general and special

education teachers may reveal what resources teachers feel they are lacking when working with students with ASD in the general education classroom. This can help determine what supports the general and special education teachers feel they need and what strategies they have already learned and applied in relation to their students with ASD. Data analysis can reveal the trainings that general and special education need when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school.

Terms and Related Research

I used Walden Library, ERIC, Education Source, Google Scholar, and the district special education report card website to find scholarly peer reviewed articles and data on the inclusion of students with ASD. I researched articles from the years 2021-2025. The key terms that were searched to obtain research for this study included *inclusion*, *students with ASD*, *inclusion teachers*, *zone of proximal development*, *teacher-attitude*, and *students with disabilities*. The research and information in this study were used to understand the problem of this study.

Background on Inclusion

Federal mandates such as the IDEA require students with disabilities, which include individuals with ASD, to be educated in a LRE to the greatest extent possible (IDEA, 2024). According to IDEA, students should only be removed if they cannot adequately achieve their educational program goals with supplemental support (IDEA, 2024). According to the U.S. Departments of Education and Health and Human Services, all young students with disabilities should have access to inclusive high-quality early

childhood programs (Siller et al., 2022). From 2000 to 2018, there was a 17% increase in students with disabilities served under IDEA who were placed in the general education setting for a majority of their school day (Dean & Chang, 2021). The U.S. Department of Education has reported due to the rise in recognition of ASD, there is an increased number of students with ASD in general education and special education classrooms. Special education enrollment for children with ASD quadrupled from the years 2000 to 2010, and during the 2017–2018 academic year (Paisley et al., 2023). Teachers are required to effectively include students with ASD their classrooms (Barnes et al., 2024). In order to successfully include students with ASD in general education classroom, the following teacher factors have been identified: knowledge of the disorder, attitudes toward inclusion, perceptions of classroom behaviors, and knowledge of effective classroom practices (D’Agostino & Douglas, 2021).

Teacher Training for Students with ASD

Teachers attend PDs each school year. Teachers have reported that they need more PD in order to work with students with ASD in their classroom and improve teacher self-efficacy (Johnson et al., 2021). Johnson et al. (2021) conducted a study to determine the effect of teacher professional development for working with students with ASD and teacher self-efficacy in the general education classroom. The results revealed that the PD had a positive effect on teacher self-efficacy ratings regarding working with students with ASD in the inclusion classroom. The results also showed that general education teachers need more PD training on working with students with ASD to improve teacher self-efficacy and to provide the most effective and inclusive educational experience.

Teachers may display challenges such as a lack of specialized training and approaches to instruction and curriculum (D'Agostino et al., 2024). Educating students with ASD who display challenging behaviors without sufficient training and support causes teacher attrition (Oliver-Kerrigan et al., 2023). Teachers' negative feelings, including reduced self-efficacy, can affect their instructional performance, student's achievement, and lead to burnout (Hamsho et al., 2024). Teacher efficacy is influenced by the teachers' preparedness for working with students with ASD, years teaching experience, and support from the administration (Catalano et al., 2023). Teachers' self-efficacy can also influence their professional behaviors and student learning (Catalano et al., 2023). One way to reduce teacher attrition is to increase self-efficacy, which is related to job satisfaction for teachers educating students with ASD in general education classrooms. An important aspect of teacher self-efficacy for educating students with ASD is having training specific to knowledge about ASD. Providing teachers with autism-specific training influences their self-efficacy and it also helps with teacher retainment (Oliver-Kerrigan et al., 2023). Teachers with higher self-efficacy show more effective lesson plans, classroom management techniques, and integration of student engagement (Reyes et al., 2024). Teacher self-efficacy can contribute to high-quality inclusion. High teaching efficacy relates to accepting change and sustaining high-quality behaviors even when faced with difficulties in the classroom (D'Agostino et al., 2024). Chezan et al. (2023) investigated the levels of and the relationship between familiarity, confidence, training, and use of problem behavior interventions by special education teachers working with students with ASD in school settings. They discovered factors that limit the

use of problem behavior interventions in school settings were competing responsibilities, the need to involve multiple people, the amount of time required, and the difficulty using interventions during typical routines. Training teachers on how to implement EBPs to address problem behavior shown by students with ASD improves their knowledge, confidence and self-efficacy in providing services to students with ASD (Chezan et al., 2023).

Due to lack of in-services on autism and the lack of specifics on autism during teachers' undergraduate and graduate classes has led to issues with placement, conversation of LRE, supports for teachers, and appropriate supports for the student with ASD (D'Agostino et al., 2024). There is a need for teacher educators to deliver more preservice training in collaboration and co-teaching because this can help preservice teachers learn to differentiate instruction, differentiate assessments, scaffold learning experiences, and monitor students' understanding (Ricci et al., 2021). Though general education teachers need more training and PD, paraeducators also need to gain more knowledge on individuals with autism because they spend more time with students with autism in an inclusion classroom (Ogden et al., 2023). Well-trained and supervised paraeducators can help students in the general education inclusion classrooms but many paraeducators lack sufficient initial job training and supervision. Training such as assistive technology and EBP; principles to support behavior management, communication, and small group instruction; strategies for meaningful inclusion; and strategies for behavior management are required to deliver effective support in the general education classroom (Ogden et al., 2023). In conclusion, teachers and

paraeducators may need PD training and support in order to include students with ASD in the general education classroom.

Instructional Practices with Students with ASD

Teachers use instructional practices in their classrooms. A problem may arise because the teacher may use inadequate practices and effective interventions that result in students with disabilities being educated in an environment where educators feel like ineffective teachers (Johnson et al., 2021). EBPs can improve outcomes for students with ASD, but only if they are used effectively by teachers (Hugh et al., 2024). When teachers are struggling to use EBPs for students with ASD in general education classrooms, they often have low levels of fidelity, or devotion, to the interventions (Suhreinrich et al., 2022). Teachers may use a variety of strategies to teach students with ASD which could include both EBPs as well as non-evidence-based interventions. Hamrick et al. (2021) surveyed special education teachers about the use of instructional practices, preparedness to use interventions, access to training, influences on decision-making, and areas of need related to current roles. The results indicated that special education teachers reported using many practices not identified as evidence-based intervention when working with individuals with ASD. Special education teachers also reported feeling inadequately prepared to use interventions. Teachers who lack knowledge about ASD and EBPs are more likely to use non-evidence-based interventions (Hamrick et al., 2021). Using non-evidence-based interventions for students with ASD is an issue because it can lead to misused instructional time and resources (Morin et al., 2021). Ineffective interventions can cause teachers to become frustrated and burnt out (Morin et al., 2021).

McCabe and Rupp (2023) explained that students with significant disabilities are being placed in restrictive environments even though there is evidence that special education services can be provided in a general education setting. Supplementary aid services are not being considered in districts and teachers are not providing adapted curricula and specific instructional strategies such as drill and practice, steps broken down, repetition, signed English, social skill instruction, intensive instruction, individualized instruction, direct instruction, and special equipment. Teachers are also not providing instructional configurations such as one on one instruction, small group instruction in general education settings (Wehmeyer et al., 2021). If given high-quality instruction in the general education classroom, students with ASD could even acquire academic skills such as mathematical problem solving in the general education classroom (Cox et al., 2021). Nahmias et al. (2023) examined the factors associated with preschoolers with ASD special education services. The results indicated the importance of supporting and promoting peer engagement in students with ASD in preschool classrooms. Students with ASD who receive early interventions can make great improvements in cognitive, communication, and adaptive behaviors skills which can lead to long-term effects (Nahmias et al., 2023). In conclusion, teachers attend PD seminars, but they may not be given instructional strategies for students with ASD, which can cause issues in the general education classroom.

Administration Involvement

Administrators are team members in an IEP meeting for students with ASD. Administrators play an important role in schools because their leadership qualities

contribute to instructional development (Mathews et al., 2024). They can influence teacher contentment, instructional practices, overall school health, and student achievement (Shurr et al., 2023). Administrators view special education teachers as leaders due to their expertise and training with individuals with disabilities (Tejero-Hughes et al., 2022). Tejero-Hughes et al. (2022) interviewed special educators on topics related to teacher leadership. The results of the study revealed that special educators valued characteristics within teacher leadership such as taking initiative, sharing knowledge, and clear communication. Special educators acknowledged the importance of special education teacher leadership, but they feel administrators were ill-prepared to support the development of teacher leaders. Half of the teachers indicated that their schools provided no support or structures to leadership development. The training special education teachers participate in includes their understanding about inclusion. Administrators described few opportunities for special education teachers to assist in developing school policies. Therefore, effective practices for the inclusion of students with disabilities are not effectively implemented in schools (Tejero-Hughes et al., 2022). It is also important for administrators to provide teachers with effective strategies, ongoing training and support for managing disruptive behaviors (Oliver-Kerrigan et al., 2021). Teacher trainers and administrators should offer opportunities for training teachers on identifying and implementing EBPs (Brock et al., 2023). Major challenges described by teachers is the lack of training and resources to develop an inclusive classroom environment and managing disruptive behaviors of students with autism (Oliver-Kerrigan

et al., 2021men). Administrators also should assess teacher supported needs and find highly qualified PDs to address the needs of the teachers (Oliver-Kerrigan et al., 2021).

Shurr et al. (2024) surveyed the engagement and perspectives of administrators in general and special education settings on six teacher leader competencies related to teaching students with disabilities including ASD. The results showed administrator support has a significant impact on teacher job satisfaction and retention. Administrators play a critical role in both supporting and facilitating PD of their teachers. School administrators are required to understand and evaluate teaching across various specializations within their school, which includes special education, but they feel as if they have received insufficient training on foundational knowledge in special education, such as instructional practices, services, and supports (Shurr et al., 2023). Administrators may lack the special education preparation training and skills to support students with ASD which may also lead to issues with collaboration with families (Ocasio-Stoutenburg et al., 2024). In conclusion, administrators can assist teachers in the general education classroom by providing training, PD, and resources but administrators should also attend PD ensure that they are educated about instructional practices and knowledge about ASD.

Behaviors of Students with ASD

Students with ASD may display behavior problems in a general education classroom. Major challenges that parents and professionals of students with ASD experience are behavior problems and social skills deficits that individuals ASD may display (Siller et al., 2024). Students with ASD have difficulty transitioning between activities which can lead to higher chances of behavior problems. Behaviors problems

can cause individuals with ASD to be excluded from participating in inclusion classrooms (Bewley et al., 2023). It is a challenge for teachers to assist students with ASD to become independent in an inclusion classroom due to the students with ASD's issues with adaptive behavior skills. Students with ASD have challenges with applying functional communication and socialization skills to everyday experiences (Saulnier & Klaiman et al., 2022). Students with ASD may display disruptive academic and social behaviors in the inclusion classrooms, which can cause them to be removed from the inclusive setting (Riden et al., 2021). The disruptive behavior can interfere with their learning which is why they are unable to participate in the inclusion setting (Bordoff-Gerken & Asaro-Saddler, 2021). Examples of behaviors students with ASD display in the inclusion setting are anxiety, social withdrawal, physical complaints, aggression, and defiance (Levinson et al., 2021). Students with ASD may also display differences in communication, including poor eye contact, failure to respond to name, limited reciprocity, or lack of interest in social stimuli (Erturk et al., 2021). Students with ASD also have difficulty with receptive language in spoken and written forms. This can lead to issues with their ability to function independently in a general education classroom (Mariage et al., 2021).

Another behavior students with ASD may display are restricted and repetitive behaviors which can range from repetitive body movements to limited interests in a particular activity or object (Brierley et al., 2021). Students with restricted and repetitive behaviors can become anxious if their routines are interrupted (Brierley et al., 2021). Brierley et al. (2021) discussed four factors that are more severe in students with ASD

which are stereotypy, self-Injury, compulsions, and ritualistic/sameness. These behaviors may be viewed as socially inappropriate and can cause issues with communication and learning within their educational environment (Brierley et al., 2021). Students with ASD also display sensory behaviors such as covering their ears to loud or unexpected sounds, poor sensory registration, rocking, hand flapping, and noisemaking. The sensory behaviors can limit learning opportunities that result from active exploration of the environment (Hudac et al., 2024). Riden et al. (2021) conducted a study on the effectiveness of a behavior intervention called daily behavior report cards. The results revealed that the intervention was effective for reducing of-task behavior with a student with ASD. The results also showed teachers can implement behavior management inventions with fidelity. The teachers in the inclusion setting are impacted by loss of teaching efficacy (Riden et al., 2021). In conclusion, teachers and parents may experience behavior difficulties with students with ASD, which can also cause issues in the inclusion setting.

Social Skills of Students with ASD

In general education classrooms, there are opportunities for students to socialize. Students with ASD are increasingly placed into general education inclusion classes and this has been providing them with openings to interact with typically developing peers (Dean et al., 2021). Including students with ASD in general education classrooms is important because it helps students with ASD increase their social participation and it also helps improve the socio-professional future of students with ASD (Mazon et al., 2022). Students with disabilities including ASD who are not socially included or do not

receive social skills training may have negative socio-emotional difficulties which may also result in the students with ASD being viewed as less favorable by peers in the general education classroom (Holmes, 2024). Narzisi et al. (2024) conducted a study where young students with ASD were given social skills trainings and the researchers discovered that the training the students received was effective by reducing behavioral and anxious symptoms. If students with ASD have minimal peer relationship support or access to social interventions within inclusion classrooms it may lead to less time socializing with peers, smaller peer groups, and they are less likely to have reciprocal friendships (Narzisi et al., 2024). Students with ASD frequently express social interests and actively look for relationships with peers. However, students with ASD do not understand the rules of social behavior which typically results in isolation (Mosher et al., 2022). Students with ASD have diverse patterns of social engagement with peers compared to their typically developing classmates (Galligan et al., 2022). Students with ASD need to show socially proficient reciprocal play behaviors with peers to be successful in inclusion early childhood classroom but students with ASD demonstrate substantial deficits in reciprocal play interactions with peers (Dueñas et al., 2021).

Students with ASD who are placed in inclusion classrooms may experience issues with interpreting social cues and they also may display difficulty with turn taking, topic maintenance, lack of initiation or appropriate responding, resistance to topic changes by others, and weaknesses in perspective taking (Blackwell et al., 2021). This could result in students with ASD responding inappropriately to others within the classroom which can create problem behaviors (Blackwell et al., 2021). Problem behaviors can result in

students with ASD being placed in a more restrictive environment where they cannot socialize more with typical peers (Blackwell et al., 2021). Teachers need to identify the social challenges of students with ASD within inclusion classrooms and provide targeted social interventions (Dean et al., 2021). To help students with ASD increase the complexity of their social communication skills, teachers can use interventions such as Snack Talk, a visual support intervention (Bateman & Wilson, 2021). Visual support interventions could also increase students with ASD ability to use social skills independently (Bateman & Wilson, 2021). Kasari et al. (2021) discussed that students with ASD demonstrate significant deficits in their social skills therefore schools should implement social interventions. The researchers discovered that students with ASD can improve their social skills through social interventions but students with ASD may need a sequence or combination of interventions in order to show significant improvement with their social skills. There are additional social interventions that teachers can implement with students with ASD such as visual schedules, access to typical peers on playgrounds, social skills groups, and peer mediated supports such as peer buddy programs (Kasari et al., 2021). In conclusion, social skills for students with ASD can be helpful but social skills training may need to be implemented in the general education classroom.

Parents' Involvement

Parents are members of an IEP team and participate in the IEP meetings. All members in a student with ASD's educational team such as the parent, teacher, and clinician can add useful information in the student's services and accommodations (Womack & Johnson, 2022). DeMatthews and Means-Parker (2024) discussed in their

study that there was a lack of preparation in special education which has possibly led many principals to delegate special education duties and responsibilities to staff members who are not knowledgeable about special education. This can lead to parents feeling silenced and disengaged in IEP meetings. Schools are accountable for ensuring parents participate in educational decision-making for students with ASD, which includes participating in IEP meetings (DeMatthews & Means-Parker, 2024). Parent involvement in services received by students with ASD has been connected to positive behavior, social and academic outcomes (Brooks et al., 2023). Brooks et al. (2023) examined teacher perspectives on aspects that build and hinder positive partnerships with parents of children with ASD. The researchers surveyed special education teachers and conducted interviews and open-ended questionnaires to examine teachers' experiences. The results indicated that there were four common themes which were communication, parent traits/support, colleagues /administration, and resources. The teachers discussed the importance of working as a team and being on the same page when supporting students and parents. Communication with team members including the parents should be ongoing and frequent. There should be positive correspondence, and the team should have collaborative decision making when communicating with each other. Dekker et al. (2021) discussed that parental involvement seemed to have helped improve students with ASD social skills compared to when parents are not involved with social skills training. Students with ASD general language abilities are impacted by the quality of their relationships with individuals in their teachers, peers, and family (Brooks et al., 2023). Parents of students with ASD receive a better sense of parenting self-efficacy when they

feel more involved in their child's therapy and they also feel more satisfied with the training they obtain on the therapies their child is currently receiving with the therapists (Kurzrok et al., 2021). If parent concerns are not addressed or overlooked during an IEP meeting, this can lead to parents being dissatisfied and this can also result in due process of their child's IEP (Ruble et al., 2021).

Parents are vital to addressing the developmental needs of students with ASD because they are one of the first individuals to identify signs of ASD, participate or lead in the diagnostic process, and implement interventions (Estes et al., 2021). It is appropriate practice for educators on the IEP team to have respectful, reciprocal relationships with families and they should collaborate with parents in order to get more information about the developmental needs of students with ASD such as communication (Siller et al., 2022). Teachers are not trained in parent-teacher communication during teacher preparation programs, resulting in parents and teachers' interactions becoming stressful and ineffective. Effective communication between parents and teachers is essential for improving special education service delivery and the generalization of skills to students with ASD in general education classrooms (Azad et al., 2021). In conclusion, parent involvement can help students with ASD develop academic and social skills, but team members may need to assist with implementing intervention strategies, social skills, and therapies at home.

Importance of Collaboration

When an IEP meeting transpires, all team members are present for the meeting. Team members include parents, school personnel, related service providers, and outside

agency members (Choiseul-Praslin et al., 2021). Team members meet to develop an IEP, which functions as an educational plan for meeting a child's individualized learning needs (Sanderson & Goldman, 2023). To improve outcomes for students with ASD, team members need to determine that the instruction students are receiving in inclusive settings meets their individual educational needs that are formalized and documented on each student's IEP (Zimmerman et al., 2023). An IEP promotes communication between parents and school staff about the services and supports that are needed for a child with a disability (Sanderson & Goldman, 2023). Students with ASD will have a more successful academic outcome when team members provide the same services across settings (DeMatthews & Means-Parker, 2024). Collaboration can advance student outcomes, facilitate transitions, and strengthen relationships among all team members (Santiago et al., 2021).

Chase (2024) discovered that teachers desire connection and collaboration with their students' parents but require more professional development and overall support to do so consistently and effectively. Teachers felt there was a lack of training and support. Teachers appreciate working with parents who they believe are open to collaboration and parents who respond positively to feedback and take the teacher's advice (Chase, 2024). Sanderson (2023) explored parent experiences during IEP meetings and advice parents have for other families participating in the IEP process. The results indicated that parent experiences during IEP meetings varied but over half the participants in the study described negative experiences. When collaboration is non-existent, parents may describe IEP meetings as one-sided, they may feel there is a lack of collaboration and parents may

also feel there is are few opportunities for meaningful parent input in the IEP meeting (Sanderson, 2023). Obstacles that occur when team members do not have positive communication include opposing perceptions among parents and school members about what educational services must be incorporated in the IEP, limited parental knowledge of special education jargon, and failure of parents and school members to hear each other's viewpoints (DeMatthews & Means-Parker, 2024). Teachers have expressed stress and anxiety when parents are adversarial, unreasonably demanding, antagonistic, overly involved, resistant to information or guidance, lacking in interest, or hostile. Teachers do not feel they are adequately prepared to work with parents with children with ASD, and they do not feel supported by school administration in developing relationships with families. This can lead to communication issues between the teachers and parents (Brooks et al., 2023). In conclusion, communication between IEP team members can advance student outcomes but when there is ineffective communication this can lead to limited student growth due to team members not collaborating effectively (Chase, 2024).

Implications

The findings from the literature review revealed that teachers need more training and PD in relation to students with ASD (Johnson et al., 2021). Teachers also want to learn how to use EBP's more effectively for students with ASD in their classroom (Hugh et al., 2024). Additionally, my review of the research found that administrators can help provide support for teachers and provide them with the PD they need in an inclusion classroom (Oliver-Kerrigan et al., 2021). Furthermore, teachers need to provide appropriate interventions for behaviors and social skills of students with ASD (Blackwell

et al., 2021). Finally, the literature review revealed that parent involvement and collaboration can help students with ASD become more successful with their developmental needs (Estes et al., 2021).

A project was developed in which teachers are provided with PD. PD will be provided prior to the start of the school year. The training will include information on EBPs, behavior and social skills interventions and curriculum, and the importance of collaboration as a team including parent involvement. The PD will be a three-day training where EBP's on ASD are being provided by professionals. The administrators and paraprofessionals will be asked to attend the training with the teachers to learn how to collaborate with all team members and to learn how to incorporate parent involvement. Social skills and behavior curriculum will be presented to the teachers and administrators throughout the PD.

Summary

Teachers in a Midwest school are not trained to include students with ASD in general education classrooms in grades Pre-k through second grade. The training that general and special education need when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school will be explored throughout this study. According to the stakeholders at the research site, teachers believe they need more support when it comes to educating students with ASD. According to the principal at the study site, general education teachers would benefit from PD and training on students with ASD. PD on instructional strategies could help provide academic, behavioral, and social needs of students with ASD in inclusive classrooms.

Section 2: The Methodology

Research Design and Approach

The research design chosen for this study was a basic qualitative study.

Qualitative research draws from interpretivist and constructivist examples (Tomaszewski et al., 2020). Interpretivism is used to build knowledge from understanding individuals' unique viewpoints and the meaning attached to those viewpoints (Tomaszewski et al., 2020). This design was chosen because in this study, I was able to build knowledge from others' viewpoints by interviewing five general education teachers and five special education teachers who teach in an inclusion setting. The interview questions were reviewed by three colleagues. General and education teachers answered research questions about the evidence-based strategies, behavior interventions, and social interventions they use in their classrooms. The interviews helped explore why general and special education teachers are not trained to include Pre-k through second grade students with ASD in general education classrooms at a Midwest school and the training they need. In the qualitative method, data is collected through interviews, a focus group, or observation (L. Haven & Grootel, 2019). I reviewed and transcribed the audio recordings, and data were analyzed to determine themes and patterns that may emerge. An approach to data analysis in qualitative research is to find, interpret, and report patterns of meaning within the data (L. Haven & Grootel, 2019). This can be achieved by methodically identifying topics that are increasingly integrated into higher-order themes (L. Haven & Grootel, 2019).

Rationale for Research Design

In quantitative research, the researcher wants to understand and describe a phenomenon, behavior, or problem using numerical data and statistical analysis (Cox, 2019). Elements of a quantitative study include specific structural features of the study, measurement of variables, and strategies for sampling (Cox, 2019). A quantitative research method was not appropriate for my study because the research questions cannot be answered through numerical data and statistical analysis. In qualitative research, the researcher seeks to deeply understand a research subject rather than predict outcomes (Tomaszewski et al., 2020). The research subject in this project study was to explore the successes and challenges that general and special education experience when educating Pre-k through second grade students with ASD in inclusive classrooms. The researcher can understand the research subject through interviews and collecting data through patterns and themes in this study. To explore the successes and challenges that general and special education experience when educating Pre-k through second grade students with ASD in inclusive classrooms at a Midwest school, data should be collected through interviews, not numerical data.

A case study is a qualitative design in which the researcher explores a real-life, case or multiple cases over time, through in-depth data collection. The researcher collects data through multiple sources of information (Alpi & Evans, 2019). I did not use the case study method in this study because interviews were the only data collection method. Interviews helped explore in-depth the teachers' viewpoints on why students with ASD are not being included in the general education classrooms.

Participants

In this basic qualitative study, five general education teachers and five special education teachers who teach in an inclusion setting were interviewed. There are eight intervention specialists; therefore, if any special education teachers did not want to participate, I had the option of asking another special education teacher. In a qualitative study, the number of participants in the sample is not fixed beforehand; this allows the researcher to choose to sample new participants when saturation has not been achieved (L. Haven & Grootel, 2019). The general education and special education teachers who teach grades Pre-k through second grade in a general education setting in a Midwest school were asked to participate in an interview. The participants in the study must have taught in a general education classroom with students with ASD. The participants were interviewed remotely through Zoom or Google Meets. I reviewed and transcribed the audio recordings, and data were analyzed to determine themes and patterns that may emerge.

The gatekeeper of the Midwest Primary School was contacted to get permission to interview the participants in this study. The principal was asked for the names and emails of the general and special education teachers who have experience teaching students with ASD in a general education classroom. A participation letter, which includes the purpose of this project study, was sent to five to seven general education and special education teachers who teach in a general education setting with students with ASD in the Midwest school (see Appendix B). The letter stated that their names will remain confidential if they choose to participate in the study. I took each step of the process with care in order

to protect the confidentiality of participants and protect them from harm connecting to issues of respect and dignity (Johnson et al., 2020). The participants' names were not used in the study, the school's name was not used in the study, and the participants could withdraw from the study at any time. The letter informed the teachers that they would be interviewed individually with me and they will be tape-recorded. If they had any questions about the study, I made it known they could ask any questions in person or via email. If a participant chose not to participate in the project study, then another teacher would be asked to participate. There were five general and special education teachers in the study to ensure there was adequate data.

To develop a researcher-participant relationship, I introduced myself and explained the purpose of my study. I also explained to the participants that their names will remain confidential throughout the study. The data collection method was explained to each participant prior to the study. I shared my email address with the participants and answered any questions they had prior or throughout the interviews.

Data Collection

In a qualitative study, interviews are used to gain understandings into individual's subjective experiences, opinions, and motivations (Busetto et al., 2020). The data collection method used to answer the research questions was interviews. A letter was sent to five to seven general education teachers and five to seven special education teachers who teach in an inclusion setting in a Midwest Primary School. The participation letter asked the teachers to participate in an interview (see Appendix B).

Interviews

Interviews were given through a virtual meeting. The 45-minute interviews were semistructured, and the interview questions were open-ended questions (Busetto et al., 2020). The pre-defined topics of the interviews were defined by previous research (Busetto et al., 2020). The interviews were also interactive, which allowed for unexpected topics to occur (Busetto et al., 2020). Data were collected by notetaking and using a tape-recorder. As the interviews were being conducted, notes were taken as the interviewees were answering questions. With the permission of the participants, they were recorded throughout the entire interview. The interviews were recorded and transcribed precise prior to coding and analysis (Johnson et al., 2020). The interviews helped explore why general and special education teachers are not trained to include Pre-k through second grade students with ASD in general education classrooms at a Midwest school. General and education teachers answered research questions about the evidence-based strategies, behavior interventions, and social interventions they use in their classrooms (see Appendix C). The interview questions were reviewed by three colleagues, and the colleagues believed the interview questions were clear and relevant to the study.

Role of the Researcher

My role in this study is to explore the successes and challenges that general and special education experience when educating Pre-k through second grade students with ASD in inclusive classrooms at a Midwest school. By identifying and addressing the problem, the Midwest Primary School may be able to develop solutions within the school and the entire district. My current professional role is that I am a veteran special

education teacher at the Midwest Primary School. Professional relationships with coworkers in both the general and special education have developed throughout the ten years. Teachers who have taught students with ASD have expressed interest in participating in this study. A potential bias is that I am a special education teacher therefore, when guiding the interview questions, I will ensure that the answers are based on the participants' answers. As a special education teacher, I will ensure that I do not give the participants questions that are guided toward my own beliefs or experiences about including students with ASD in the general education classroom.

Data Analysis

The data were analyzed after the interviews were recorded and transcribed. Open, axial, and selective coding was used to analyze the data. Open coding identifies topics of interest, axial coding identifies associations among the codes that can be organized into groups of more complex themes, and selective coding focuses narrowly on topics of interest (McDonald et al., 2019). After reviewing the transcripts, codes were developed based on discrete parts, and then themes will be developed from the codes. After the themes are developed, a core category will be developed from the data (Chun Tie et al., 2019).

Member checking was used to assure accuracy and credibility of the findings. Member checking is the process of asking feedback from a participant about the data or interpretations (Motulsky, 2021). The participants were asked to review the themes that emerged from their interviews in order to check for accuracy. The participants were told they can add or delete data from the coding in their transcripts if they do not agree with

the interpretation of the data. If there was a discrepant case, a negative case analysis would be conducted in order to find and discuss data that contradicts the findings. A negative cases analysis is a different perspective that develops throughout the data analysis process and challenges the main theoretical model (Hymer & Smith, 2022). The data would have been added to the study to discuss a different perspective on the main themes if there was a discrepant case.

Data Analysis Results

The purpose of this basic qualitative study was to explore the training needed for general and special education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school. The two research questions in this study were used to help me understand the training needed for general and special education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school. Five general education teachers and five special education teachers who teach in a general education setting were interviewed. All teachers were virtually interviewed, and the interviews did not exceed 45 minutes. A general and special education teacher from each grade-level in the primary school were interviewed. The general and special education teachers that were interviewed were all females that have taught students with ASD in general education classrooms ranging from 2-14 years.

Six themes emerged from both research questions. One theme that emerged from the first research question: what are the trainings needed for general education teachers when including Pre-k through second grade students with ASD in general education

classrooms at a Midwest school, was (a) differentiation. Five common themes emerged from both research questions: what are the trainings needed for general education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school and what are the trainings needed for special education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school: (b) co-teaching model (c) information on ASD (d) PD (e) paraprofessionals (f) collaboration with team members.

Theme 1: Differentiation

Throughout the interviews, all participants who were general education teachers mentioned or discussed differentiation of instruction for students with ASD in inclusion classrooms. When discussing trainings that participant 1 felt general education teachers needed when including ASD students in a general education classroom, the participant stated, “I think learning more about like how to differentiate the academics specifically” and participant 5 discussed that she wanted to know how to provide different strategies in the classroom. Participant 5 stated, “how do they learn? Do they learn through, you know, doing? Do they learn through hearing? Do they learn through song? I know all kids are different, but just providing those different types of strategies I feel like is important.” Teachers want to learn different strategies to use in the classroom, but they do not know how to use EBP’s effectively which can cause teachers to become frustrated in the general education classroom (Morin et al., 2021). Teachers can also feel inadequately prepared to use interventions (Hamrick et al., 2021)

Theme 2: Co-Teaching Model

Eight of the ten participants explained that they felt co-teaching will help them successfully include students with ASD in the general education classroom. When discussing co-teaching, participant 6 explained that she believed her grade-level team needed more support and training. Participant 6 stated, “So I think we need like major, major training on co-teaching. Just in general, what does that look like? How can you incorporate your intervention specialists into your daily routine? How can the intervention specialist benefit all students more?” Participant 2 explained that the year she co-taught with the intervention specialist was the most beneficial for students with ASD because she was able to learn strategies and interventions from the inclusion intervention specialist. Participant 2 stated, “it would definitely be the co-teaching model where the interventionist is in the classroom because, oh my gosh, that year I learned so much. You know, I learned so much from the intervention specialist. I learned so much from her. And we shared and she showed me how to truly modify, like, little things, like you need to, like, highlight that so it sticks out for that kid or, you know, we need to make this font bigger or things like I never thought about.” Collaboration between the special education and general education teachers can provide students with ASD with effective practices in general education classroom (Tejero-Hughes et al., 2022). Teachers need more PD training on working with students with ASD to improve teacher self-efficacy and to provide the most effective and inclusive educational experience when co-teaching together in the general education classroom (Johnson et al., 2021).

Theme 3: Information on ASD

Throughout the interviews, five of the ten participants felt that both general education teachers and intervention specialists needed to be more knowledgeable about ASD. Participant 9 explained that “A lot of times I’ve seen or noticed general education teachers having students with autism in the classroom and they don’t know too much about the child’s history, about the child’s IEP, about what their responsibilities are for that child.” Participant 9 explained that if the teachers were more knowledgeable about students with ASD history, then they would be more prepared to teach the students with ASD.

Participant 10 discussed that if general and special education teachers were knowledgeable about ASD, they would know how to implement strategies for different students on the spectrum. She stated, “And the scale, I guess, for diagnosing autism has changed like it used to be, Asperger’s and autism, and now it’s just the wide range. I think it’s important to know just the basics of what autism is and all the different ways that it could look, because it can look so many different ways. And one strategy isn’t going to work for every student.” The lack of knowledge about ASD could lead students with ASD to have issues with placement and LRE (D’Agostino et al., 2024). This can also lead to teachers not using interventions with fidelity in the general education classrooms (Riden et al., 2021).

Theme 4: Professional Development

During the interviews, eight of the ten participants mentioned or discussed the need for PD when including students with ASD in the general education classroom.

Participant 3 stated, “I think a lot more PD would be beneficial on an inclusion classroom that would collaboratively work with the IS.” She discussed that it would be beneficial for the general education and special education teachers to attend PD on inclusion in order to teach students with ASD in the general education classroom. Participant 7 explained that it was important for teachers to learn about social interventions. She stated, “And our goal is to have them with their peers, which I think is important. I think in general; all teachers need a little more training so that they’re able to address even the social aspect with their students.” Participant 8 felt that special education teachers should receive PD from individuals with ASD. She stated, “What I think would be really beneficial to special education teachers working with autistic students but also with disabled students in general would be more trainings that are directly influenced by the input experiences and research of autistic individuals and disabled individuals.” She discussed that receiving this training would help teachers understand firsthand what individuals with ASD experience in school. PD has a positive effect on teacher self-efficacy ratings regarding working with students with ASD in the inclusion classroom (Johnson et al., 2021). Teachers who are given PDs on ASD can have higher efficiency which can also lead to effective lesson plans and classroom management (Reyes et al., 2024).

Theme 5: Paraprofessional

When discussing the training needed to include students with ASD, both general and special education teachers mentioned the benefits of paraprofessionals. Participant 5 stated, “Well, paras are just so wonderful because they develop really nice relationships

with them, especially because if I'm leading a group or a small group, you know, they're kind of the go to person." Participant 5 explained that she relies on her paraprofessional to assist her with students with ASD in her classroom and feels she can effectively teach social skills and curriculum with extra support.

Participant 1 explained that she felt paraprofessionals were very beneficial in the classroom. She does not have one in her classroom, but she discussed that a paraprofessional would assist students who are partially included in her class for academics. When discussing the benefits of paraprofessionals, she stated, "I think they have just a knowledge of the particular student that you're coming with. Like they, they know the student's triggers. They know the students. I don't want to say triggers, but the things that calm them. So, they develop the relationship with the students, they know, you know pretty much how the student functions, what will set them off, what will help them soothe, what their favorite subject is, that kind of thing. So, they just come with the knowledge of the student." Paraprofessionals have knowledge about students with ASD because they spend time in the general education classroom assisting the students with academic and behavior interventions (Ogden et al., 2023).

Theme 6: Collaboration with Team Members

Throughout the interviews, both general education and special education teachers discussed the importance of collaboration with different team members. Participant 9 explained that it is important to effectively collaborate because different team members can give support and interventions to students with ASD. Participant 9 stated, "I think collaboration with all staff members who encounter that particular student because

there's often a disconnect of what supports are needed for that child and who is responsible for what key pieces are necessary for that child to thrive." Participant 4 explained that parents are key members of their child's team. She stated, "Parents are definitely the biggest team members because they know their child the most. So, giving me ideas and strategies that I can use to help them. That's pretty much the first thing I would go to as at the beginning of the year, talking to the parent, you know, asking some questions about their student and how I can help them." Students with ASD have successful outcomes when team members collaborate effectively (DeMatthews & Means-Parker, 2024). Communication with team members should be ongoing and frequent. There should be positive correspondence, and the team should have collaborative decision making when communicating with each other (Brooks et al., 2023).

Discrepant Cases

When analyzing the data, no discrepant cases were found. Throughout the data analyzing process, all the participants discussed similar trainings for both research questions, what are the trainings needed for general education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school and what are the trainings needed for special education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school. All general education teachers who were interviewed also discussed similar training for the first research question.

Accuracy of the Data

Member checking was used to ensure the accuracy and credibility of the findings (Motulsky, 2021). To ensure accuracy, I listened to the interviews from each participant a couple of times to check that the coding was correct. Throughout the interviews, I checked for clarification from the participants after they explained their answers. All the participants also reviewed the themes that emerged from the data. They were given the chance to delete or add data from the coding of their transcript. There were no corrections made by all the participants. When the participants and I checked all the data, I was able to ensure the accuracy and credibility of the findings from each of the interviews.

Conclusion

Both the general education and special education teachers who participated in the study discussed the need for training when it comes to including students with ASD in the general education classroom. None of the participants felt general education or special education teachers did not need training when it comes to including students with ASD in the general education classroom. The general education teachers discussed the need for training on differentiation. When students with ASD are being included in their general education classroom, they are not sure of the different strategies to utilize with the students with ASD.

Throughout the interviews, the participants discussed the importance of collaborating with all team members. Important team members included parents, general education teachers, special education teachers, and paraprofessionals. The participants discussed how when they worked with the intervention specialist, they felt as if they had

a lot of knowledge on behavior and academic interventions to apply to the inclusion classrooms.

A theme that emerged from the results of the data analysis revealed that general education and special education teachers feel they can benefit from PD on including students with ASD in the general education classroom. The results relate to the ZPD theory because teachers believe they can learn new strategies to work on social interventions with students with ASD and learn how to collaborate effectively with team members if they were given PD from knowledgeable educators (Vygotsky, 1962). The team members believed receiving PD would benefit them in including students with ASD with their peers in the general education classroom.

Project Deliverable

After analyzing the data from the interviews, the participants discussed the need for training on differentiation, co-teaching model, information on ASD, paraprofessionals, and collaboration. A PD was developed for general education teachers, special education teachers, administrators, and paraprofessionals. Paraprofessionals will attend due to the data revealing the importance of the roles of paraprofessionals in the general education classroom. The PD will be provided at the start of the school year. The training will include information on EBPs, differentiation, general knowledge on ASD, co-teaching models, behavior and social skills interventions and curriculum, and the importance of collaboration as a team including parent involvement. The PD will be a three-day training where EBP's on ASD which include academic and social behavior interventions are being provided by professionals. The administrators will be asked to

attend the training with the teachers to learn how to collaborate with all team members and to learn how to incorporate parent involvement.

Section 3: The Project

The focus of this study was to explore the training needed for general and special education teachers when including Pre-k through second grade students with ASD in general education classrooms at a Midwest school. Based on the research, both general education and special education teachers feel they need training in order successfully include students with ASD in the general education classroom. By providing PD based on the research in this study, educators, including administrators and paraprofessionals will learn the strategies and supports teachers needed in order to successfully teach students with ASD in the general education setting.

A 3-day PD will be provided at the start of school year. The training will include information on EBPs, differentiation, general knowledge on ASD, co-teaching models, behavior and social skills interventions and curriculum, and the importance of collaboration as a team including parent involvement. General education and special education teachers, paraprofessionals, and administrators will attend the PD. The goals of the PD that will be provided to teachers, paraprofessionals, and administrators are as follows:

- Goal 1: General education and special education teachers, paraprofessionals, and administrators will become more knowledgeable about ASD by getting educated about the general knowledge about ASD.
- Goal 2: General education and special education teachers, paraprofessionals, and administrators will learn new strategies and interventions including

differentiation and EBPs, academic, social, and behavioral intervention to use with students with ASD in the general education classroom.

- Goal 3: General education and special education teachers, paraprofessionals, and administrators will collaborate and discuss the new strategies and interventions they have learned in the PD.
- Goal 4: General education and special education teachers, paraprofessionals, and administrators will learn about the importance of team collaboration when it comes to including students with ASD in the general education classroom.
- Goal 5: General education and special education teachers, paraprofessionals, and administrators will learn about research-based co-teaching models.

Rationale

A basic qualitative study was conducted to explore the training needed for general and special education teachers when including pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school. One theme emerged from the first research question which was differentiation. Five common themes emerged from both research questions pertaining to the trainings needed for general education teachers when including pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school and the trainings needed for special education teachers when including pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school: co-teaching model, information on ASD, PD, paraprofessionals, and collaboration with team members. A PD will be conducted to train general and special education teachers to

include pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school. PD in education is the process of improving the practices of educators (Layden et al., 2023). By conducting a PD, general and special education teachers can improve their practices when including students with ASD in the general education classroom.

Review of Literature

The purpose of this literature review is to present a scholarly review related to PD. For this review, I used Walden Library, ERIC, Google Scholar, and Education Source to find scholarly peer reviewed articles related to PD. I researched articles from the years 2020-2024. The key terms that were searched to obtain research for this study included *inclusion*, *students with ASD*, *inclusion teachers*, *PD*, *special education*, and *students with disabilities*.

The Importance of Professional Development

Teachers engage in three modes of learning: formal, informal, and independent. Formal learning experiences are representative in traditional teacher PD which are provided in workshops or seminars (Jones et al., 2020). There are different types of PD which include workshops and institutes, conferences, peer observations, and professional learning communities. PDs are constructed to support teachers' ongoing learning and implementation of new practices to support positive effects for students with ASD (Cantrell et al., 2022). The intricacy of PD planning and implementation addresses the exact needs, demands, and motivations of teachers (Harbour et al., 2022). Therefore, for PDs to be effective for teachers, educators planning the PD should discover what exact

area the general and special education teachers need in order to include students with ASD in the general education classroom. Effective PD for educators who work with students with ASD can have multiple benefits such as teachers feeling greater support and increasing their skills, which may reduce attrition and can likely lead to better outcomes for students with ASD (Layden et al., 2023). The level of preparedness, knowledge of autism, and level of training is needed for general education teachers working in the inclusion classroom setting. Teachers in inclusion classrooms want and require more professional training in basic knowledge about ASD, more resources to accommodate social needs of students in the classroom, and more understanding of how to advocate for students with ASD in their classrooms (Aylward & Neilsen-Hewett, 2021).

Educators are expected to accommodate students with disabilities, such as ASD, but state certification requirements often do not reflect adequate training in this area, and it is not common for in-service training opportunities for veteran teachers (Paisley et al., 2023). There is new knowledge about EBPs continuously evolving; therefore, teachers and administrators must constantly enhance their knowledge and skills to apply practical applications of EBPs in the classroom. Teacher PD targets teacher outcomes across three concepts: knowledge, instructional strategies, and beliefs such as self-efficacy. Teacher knowledge and skill are factors that can be improved through PD (Gesel et al., 2021). Teachers need to be provided with professional growth opportunities to capitalize on student success (Layden et al., 2023). Teachers also need more intensive PD activities targeting implementation of EBPs in order to create a learning environment that meets

the educational and behavioral needs of students with ASD (Dennis et al., 2024). They will feel informed when districts or principals provide them with information on the implementation of EBPs in classrooms for individuals with autism in their schools (Williams et al., 2021).

In order to make improvements and require any changes to teacher practice, districts and administration need to use PD in the classroom because PD can assist teachers on impacting student outcomes (Owens, 2024). Teachers recognize that schools and districts provide PD that highlight academics, but teachers also feel that PD should include behavioral and social-emotional needs of students which could help teachers create more socially inclusive settings for their students (McGuire & Meadan, 2022). General education teachers have reported challenging behaviors in their classroom behaviors displayed by students with ASD such as impulse control, and difficulties to redirect, aggression (Bolourian et al., 2022). In order to support teachers in addressing these behaviors, evidence-based behavior management strategies could be valuable for general education teacher-focused training programs on autism (Bolourian et al., 2022). Teachers learn to help students with ASD to regulate their emotions by implementing strategies and intervention through PD (Delisio et al., 2023).

Teachers have reported that there is a need to receive effective PD in areas that they feel are useful such as co-teaching. General and special education teachers are required to implement co-teaching in inclusive classrooms, but they are not provided with the necessary PD. If PD on co-teaching is given annually then teachers can be more successful with the co-teaching models (Colson et al., 2021). General and special

education teachers need to be able to use effective practices within the co-teaching model and depend on the various co-teaching models accessible to provide specialized instruction. Co-teaching PD may lead to more substantial and positive outcomes for students with disabilities (Cook et al., 2021).

In order to improve teachers' practical knowledge and confidence in working with individuals with ASD and their families, interdisciplinary training programs should provide more PD seminars on ASD and schools should allow for hands-on experiences working with individuals with ASD (Bono et al., 2022). Understanding the knowledge gaps and training needs of different early special education teachers may lead to differentiated PD programs (Gevarter et al., 2022). The goal of PD sessions is to improve both the knowledge and skill levels of teachers which will lead to changes in teacher practices and improvements in student learning outcomes (Loesch, 2023). PDs should also include teacher input and feedback because it ensures that the professional learning was meeting teachers' needs and it helps warrant teacher buy-in and support (Bouffard et al., 2022).

Paraprofessionals are individuals who are employed in a preschool, elementary school, or secondary school under the supervision of a certified teacher. They also provide support for students with ASD in inclusion classrooms (Sam et al., 2023). Paraprofessionals play an important role in supporting and providing individualized services to students with ASD. They should be provided with adequate PD which includes coaching (Horn et al., 2022). Paraprofessionals who work with students with ASD may have issues in the classroom because working successfully with students with

ASD requires knowledge of evidence-based practices specific to ASD (Morin et al., 2022). Paraprofessionals lack adequate PD training. They should be provided with appropriate PD because they will be prepared for specific settings and their roles in the classroom (Wiggs et al., 2021). When paraprofessionals receive appropriate PD and supervision, their implementation of instructional practices improves, which can help increase academic outcomes for students with ASD (Walker et al., 2021). Teachers do not receive adequate training for their roles supporting and supervising paraprofessionals (Frantz et al., 2022). Some teachers also have different perceptions about the paraprofessional's role in the classroom (Sam et al., 2023). Teachers must be prepared to provide support to their paraprofessionals, assist as a collaborative resource, and provide ongoing coaching in compliance with special education standards. It is important to provide valid PD practices that prepare early childhood paraprofessionals to assist teachers who work with students with ASD and PD can help teachers coach the paraprofessionals (Frantz et al., 2022).

Instructional coaching has become important for district reform and instructional improvement (Woulfin et al., 2023). Coaching is a common way of providing a PD because it establishes positive effects on teacher methods by increasing the competence of educators (Lang et al., 2024). Coaching teachers in PD is important when it comes to the implementation of strategies for students with ASD (Odom et al., 2022). Teachers require ongoing PD and supports to implement function-based interventions with fidelity. Coaching, modeling, role-play, feedback, and self-monitoring can assist teachers in implementing behavioral interventions (Rispoli et al., 2023). Instructional coaches work

with teachers to observe classroom practices, provide supportive feedback, and model instructional strategies. They also lead PD workshops and network with school districts (Woulfin et al., 2023). When instructional coaches lead a PD, they model the skills with fidelity while the educators observe, the educators will practice the skills with other participants while getting immediate feedback from the coaches, and then the educators execute the targeted skills to fidelity before using them in the classroom with students with ASD (Saunders et al., 2024). Time for planning for PD including mentoring can help teachers feel they are being professionally supported (Lipscomb et al., 2022).

PD is a planned activity that progresses teachers' knowledge and skills that are crucial to their performance (Höfrová et al., 2021). Availability for accessibility to training courses is necessary to make lasting change (Miller, 2023). Ongoing PD and opportunities for teachers to have classroom practice with coaching, are mainly important for teachers seeking to implement practices that serve students with ASD (Cantrell et al., 2024). The lasting changes can include students with ASD being included in general education classrooms. High quality inclusive environments are beneficial to students with and without disabilities. Models such as tier-based modifications that have been developed to guide high quality inclusion and focused on ensuring child access to and participation in learning opportunities (Amsbary et al., 2024). These models can be taught to teachers through PD.

Project Description

The supports needed for this PD are the school principal, dean of students, district special education director, and the district superintendent. Support from the principal and

dean of students can help support teachers because they will be attending the PD with the general and special education teachers. The special education director and district superintendent can support teacher learning by encouraging teachers to attend the PD to help them include students with ASD in the general education classroom.

A 3-day PD will be provided prior to the start of the 2024 school year. The training will include information on EBPs, differentiation, general knowledge on ASD, co-teaching models, behavior and social skills interventions and curriculum, and the importance of collaboration as a team including parent involvement. General education and special education teachers, paraprofessionals, and administrators will attend the PD. Teachers and paraprofessionals will be asked to bring their laptops to take notes on the presentations. Presenters will need a projector screen and their laptops to present PowerPoints. They will also need copies of handouts with pens and highlighters available to attendees. A potential barrier is that administration may not be able to add this PD to the agenda this summer due to multiple PDs given the week prior to school starting. A solution could be asking the district to add this PD in the fall sessions if the summer sessions are full.

Table 1

Timetable of Professional Development on ASD

Implementation time	Actions
4 months	Discuss findings from project study with administrators and get permission to conduct a three-day professional development.
3 months	Secure permission from the superintendent to conduct the three-day professional development.
2 months	Get a list of general and special education teachers and paraprofessionals that work in inclusions and send out invitations and agenda to the attendees.

1 month	Confirm the location is secured for the professional development sessions. Create and copy agendas for the professional development sessions.
Event	Conduct the three-day professional development.

Project Evaluation Plan

I will use summative and formative assessment in order to ensure the PD was effective for general and special education teachers, paraprofessionals, and administrators. A formative assessment will be given at the beginning of the PD session to gain insight on the knowledge that the participants have about including students with ASD in the general education classroom. A summative assessment will be given at the end of the three-day PD to discover what new knowledge and strategies the participants gained throughout the PD. A survey will be given anonymously which could help participants provide honest feedback about the PD sessions. Participants will be given the chance to write about new knowledge they learned but also any challenges that occurred throughout the PD sessions. This will allow me to make any adjustments to PD sessions in the future.

The goals of the PD that will be provided to teachers, paraprofessionals, and administrators are as follows:

- Goal 1: General education and special education teachers, paraprofessionals, and administrators will become more knowledgeable about ASD by getting educated about the general knowledge about ASD.
- Goal 2: General education and special education teachers, paraprofessionals, and administrators will learn new strategies and interventions including

differentiation and EBPs, academic, social, and behavioral interventions to use with students with ASD in the general education classroom.

- Goal 3: General education and special education teachers, paraprofessionals, and administrators will collaborate and discuss the new strategies and interventions they have learned in the PD.
- Goal 4: General education and special education teachers, paraprofessionals, and administrators will learn about the importance of team collaboration when it comes to including students with ASD in the general education classroom.
- Goal 5: General education and special education teachers, paraprofessionals, and administrators will learn about research-based co-teaching models.

The summative assessment will allow me to discover if the overall evaluation goals were met at the end of the PD sessions. If the goals are met then this can benefit students with ASD, general and special education teachers that work in a inclusion classroom, administrators, and paraprofessionals successfully work with students with ASD in a general education classroom. Participants will become more knowledgeable about ASD, learn new strategies and interventions including differentiation, academic, social, and behavioral intervention to use with students with ASD in the general education classroom, learn about the importance of team collaboration when it comes to including students with ASD in the general education classroom, and learn about research-based co-teaching models.

Project Implications

The project study can help general education, special education, paraprofessionals, and administrators successfully include students with ASD in the general education classroom. The study may help educators, including administrators, learn the training needed for general and special education teachers who teach students with ASD in a general education setting regarding the strategies and supports teachers feel they need in order to successfully teach students with ASD in the general education setting. Administrators could apply solutions to help the teachers. This project study can bring about positive social change because administrators can also share with the other schools in the district the training needed to include students with ASD in general education classrooms and this can lead to district-wide training for all educators to successfully include students with ASD in the general education classroom.

Section 4: Reflections and Conclusions

Project Strengths and Limitations

One of the strengths of this project study was the participation from the teachers and administrators. I was able to interview 10 teachers who all willingly accepted to give honest answers in the interviews. All the teachers expressed the need for PD, and they wanted to attend the PD because they wanted to learn to successfully include their students with ASD in general education classrooms. The teachers showed a willingness to gain more knowledge about ASD and expand their knowledge on teaching strategies. This helped me discover that this project study could be successfully implemented at this Midwest primary school. Another strength is the administrators were willing and open to helping me interview teachers for this project study. They asked questions about my project study and seemed very interested in the outcome. Their openness can help get approval to implement the 3-day PD on including students with ASD in the general education classrooms.

One limitation is the timing to conduct the PD sessions. Administrators have many PDs planned ahead of time and they may not allow my PD to be conducted this summer. I may have to wait until later in the year. If the PD was implemented early in the year then teachers may have a successful start to the school year when it comes to including students with ASD in the general education classroom. I will discuss this concern with my administrators when proposing the PD sessions. Another limitation is that not all teachers may want PD on the inclusion of students with ASD in the general

education classroom. Other schools in the district may not feel they need training when it comes to including students with ASD in the general education classroom.

Recommendations for Alternative Approaches

An alternative approach to this project study is to provide general and special education teachers with mentors or coaches that have an expertise in teaching students with ASD. The coaches could also lead to more PD on ASD and after the PD sessions they can help teachers by going into the classroom and providing the supports needed. Coaching and mentoring can help the teachers observe new strategies and then implement the strategies with students with ASD in the general education classroom.

Another alternative approach I can propose is that other special education teachers provide PD sessions to the general and special education teachers who work with ASD students in the general education in their schools throughout the district. Other schools can expand their knowledge on ASD by attending PDs given by other special education teachers. General and special education teachers in schools throughout the district will be adequate training on including students with ASD in the general education classrooms.

Scholarship, Project Development and Evaluation, and Leadership and Change

My journey and learning experience to obtain my doctorate at Walden University has helped me expand my knowledge on researching articles and conducting my own research. I learned to research peer-reviewed articles and expand my knowledge on students with ASD. As a special education teacher, I had knowledge about working with students with ASD but after researching evidence-based strategies, I feel as if I have expanded my knowledge even more as a professional.

Walden University also has helped me with my collaboration skills. I feel as if I had reached out to classmates and my professor for help with assignments which helped me obtain more knowledge through other professionals. I felt as if I could work through issues with writing with my professors and take in corrective feedback due to working on my doctorate. I also feel Walden University helped me share my expertise with my colleagues more when it comes to students with ASD. I was timid to speak up in meetings, but I know I have the knowledge to collaborate and give suggestions to my colleagues in team meetings.

Reflection on Importance of the Work

After completing this project study, I feel as if I can become a mentor teacher to new special education teachers in the district. I can also help advise new general education teachers on how to help them include students with ASD in the general education classroom. I was able to become more knowledgeable about the trainings both general and special education teachers feel they need when it comes to including students with ASD in the general education classroom; therefore, I can help new teachers with strategies I have researched throughout my project study.

This project has also helped me become more confident with advocating for students with ASD and teachers who include students with ASD in the general education classroom. I am able to understand the challenges both students with ASD and teachers are facing in the general education classroom and I am able to help advise teachers by coaching them in the classroom. This project has helped me to learn strategies I can apply

with students with ASD and model them for general and special education teachers in my district.

Implications, Applications, and Directions for Future Research

The project study that I conducted can deliver social change by helping students with ASD become successfully included in general education classrooms. It can inform administrators what training general and special education teachers need in order to successfully include students with ASD in the general education classroom. The training can also be beneficial to paraprofessionals. This study can help teachers apply the new training they have learned in the PD sessions into their classrooms. The trainings will help general education and special education teachers, paraprofessionals, and administrators to become more knowledgeable about ASD by getting educated about the general knowledge about ASD, learn new strategies and interventions including differentiation, academic, social, and behavioral intervention to use with students with ASD in the general education classroom, collaborate and discuss the new strategies and interventions they have learned in the PD, learn about the importance of team collaboration when it comes to including students with ASD in the general education classroom, and they will learn about research-based co-teaching models.

Conclusion

The IDEA states that students with disabilities, which include individuals with ASD, should be educated in an LRE to the greatest extent possible. The purpose of this basic qualitative study was to explore the training needed for general and special education teachers when including Pre-k through second grade students with ASD in

general education classrooms at a Midwest school. Students with ASD deserve to be educated in a least restrictive environment, therefore teachers need to be prepared to teach students with ASD. After interviewing the participants in this study, the trainings needed are differentiation, general knowledge on ASD, co-teaching models, behavior and social skills interventions and curriculum, and the importance of collaboration as a team including parent involvement. This study can not only contribute to students with ASD being successfully included in the general education classroom but also teachers feeling confident to successfully teach students with ASD in the general education classroom.

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Appendix A: The Project

Day 1 Agenda “Overview of Goals and ASD General Knowledge”

Timeline	Activity	Notes
8am-8:30am	Welcome: Sign-In	Participants will put their name on a name tag and choose a table to sit.
8:30am-9am	Introductions and review of professional development session	Participants will introduce themselves and their job title. Trainer will review the purpose and goals of the professional development.
9am-9:10am	Review of goals for the day	Trainer reviews goals for the day.
9:10am- 9:40am	Participants will write down 3 things they know about students with ASD or about ASD in general in their experience and 3 things they want to know about students with ASD or ASD in general.	Trainer will pass out note cards.
9:40am- 10:15am	Participants share as a large group what they wrote down on their note cards.	Trainer will call on volunteers to share what they wrote down and have a large group discussion about what the participants wrote down.
10:15-11:15am	Review Slides on ASD General Knowledge	Trainer passes out powerpoint handouts and presents powerpoint slides.
11am-11:45am	Small Group Activity	Participants will break up into small groups of 4-5 teachers and discuss what they learned. They will write down at least 3 new facts they learned about ASD.
11:45-12:15	Large Group Discussion	One participant from each group will present to the large group about what they discussed in their small groups.
12:15pm-1pm	Lunch/Break	
1pm-1:30pm	ASD General Knowledge Slides continued	Trainer will present remaining slides.
1:30pm-2pm	Small Group Activity	Participants will break up into small groups of 4-5 teachers and discuss what they learned. They will write down at least 3 new facts they learned about ASD.
2pm-2:30pm	Large Group Discussion	One participant from each group will present to the large group about what they discussed in their small groups.
2:30-3pm	Self-Reflection	In a small group, the participants will discuss take aways and what they learned from the day. Each participant will write 3 take aways from the day on a note card and turn the note card into the trainer.

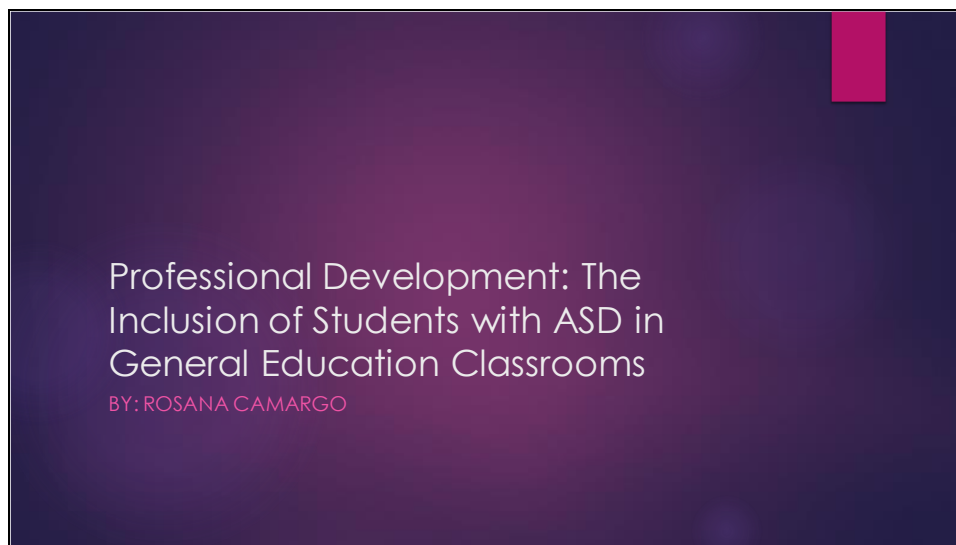
Day 2: Agenda “New strategies such as differentiation and EBPs, academic, social, and behavioral interventions”

Timeline	Activity	Notes
8am-8:30am	Welcome: Sign-In	Participants will put their name on a name tag and choose a table to sit.
8:30am-9am	Review of ASD General Knowledge	Trainer will review content from yesterday and participants will be asked to participate in a large group discussion by saying one take away they learned from yesterday.
9am-9:10am	Review of goals for the day	Trainer reviews goals for the day.
9:10am- 9:40am	Large group activity. Participants will write down an evidence-based strategy they use in the classroom with students with ASD and one way they differentiate their instruction for students with ASD.	Trainer will pass out note cards.
9:40am- 10:15am	Participants share as a large group what they wrote down on their note cards.	Trainer will call on volunteers to share what they wrote down and have a large group discussion about what the participants wrote down.
10:15-11:15am	Review Slides on evidence-based strategies and interventions	Trainer passes out powerpoint handouts and presents powerpoint slides.
11am-11:45am	Small Group Activity	Participants will break up into small groups of 4-5 teachers and discuss what they learned. They will write down at least 3 new evidence-based strategies they can use in their classroom.
11:45-12:15	Large Group Discussion	One participant from each group will present to the large group about what they discussed in their small groups.
12:15pm-1pm	Lunch/Break	
1pm-1:30pm	Differentiation Slides	Trainer will present slides on differentiation.
1:30pm-2pm	Small Group Activity	Participants break up into small groups of 4-5 educators and form a circle. One participant will start with a ball and tell the group one way they can differentiate a lesson in their class. Then they will toss the ball to another educator. That educator will then share with the group a way they can differentiate a lesson in their classroom (This can be a very simple way and does not have to be in great detail). If the participant gets stuck, they can ask another educator for help.
2pm-2:30pm	Large Group Discussion	One participant from each group will present to the large group about what they discussed in their small groups.
2:30-3pm	Self-Reflection	In a small group, the participants will discuss take aways and what they learned from the day. Each participant will write 3 take aways from the day on a note card and turn the note card into the trainer.

Day 3: Agenda “Collaboration and Co-Teaching”

Timeline	Activity	Notes
8am-8:30am	Welcome: Sign-In	Participants will put their name on a name tag and sit with their grade-level team (special education teachers will sit with general education teachers that teach the same grade-level).
8:30am-9am	Review of EBPs and differentiation	Trainer will review content from yesterday and participants will be asked to participate in a large group discussion by saying one take away they learned from yesterday.
9am-9:10am	Review of goals for the day	Trainer reviews goals for the day.
9:10am- 9:40am	Large group activity. Participants will write down what co-teaching models they have used throughout their teaching careers.	Trainer will pass out note cards.
9:40am- 10:15am	Participants share as a large group what they wrote down on their note cards.	Trainer will call on volunteers to share what they wrote down and have a large group discussion about what the participants wrote down.
10:15-11:15am	Review Slides on Collaboration	Trainer passes out powerpoint handouts and presents powerpoint slides.
11am-11:45am	Small Group Activity	Participants will discuss with their grade-level teams what they learned. They will write down at least 2 benefits of collaboration.
11:45-12:15	Large Group Discussion	One participant from each group will present to the large group about what they discussed in their small groups.
12:15pm-1pm	Lunch/Break	
1pm-1:30pm	Co-teaching Model Slides	Trainer will present slides on co-teaching.
1:30pm-2pm	Small Group Activity	Participants will write down with their grade-level teams, a co-teaching strategy/model they want to use and why they chose that strategy/model.
2pm-2:30pm	Large Group Discussion	One participant from each group will present to the large group about what they discussed in their small groups.
2:30-3pm	Self-Reflection	In a small group, the participants will discuss take aways and what they learned from the day. Each participant will write 3 take aways from the day on a note card and turn the note card into the trainer.

Slide 1



Before beginning the presentation, pass a basket of fidgets (pop its, spinners, clickers, squishy toys, stress balls, etc.) to the participants to use throughout the professional development to show them examples of fidgets they can use in the classroom.

Slide 2



Slide 3

Goals of the Day:

- ▶ Goal 1: Participants will learn about ASD.
- ▶ Goal 2: Participants will discuss with colleagues, the take aways of the day and what they learned from the day.
- ▶ Goal 3: Each participant will write 3 take aways from the day on a note card and turn the note card into the trainer.

Slide 4

ASD General Knowledge

- ▶ What is ASD?
 - ▶ Autism spectrum disorder (ASD) is a neurodevelopmental disorder which includes persistent challenges in social communication and interaction and the presence of restrictive, repetitive patterns of behavior, interests, or activities that are present early in childhood (Rice et al., 2022).
 - ▶ ASD can cause clinically significant functional impairments (Rice et al., 2022).
 - ▶ A diagnosis of ASD can help inform intervention, supports, and understanding of a person's strengths and challenges (Rice et al., 2022).

Slide 5

Autism Spectrum Disorder (ASD)

- ▶ Why should we include students with ASD?
 - ▶ Federal mandates such as the Individuals with Disabilities Education Improvement Act (IDEA) require students with disabilities, which include individuals with ASD, to be educated in a LRE to the greatest extent possible (Individuals with Disabilities Education Act [IDEA], n.d.).
 - ▶ If a student with a disability needed to be removed for a general education classroom setting, IDEA explains that students should only be removed if they cannot adequately achieve their educational program goals with supplemental supports (Wilson et al., 2020). From 2000 to 2018, there was a 17% increase in students with disabilities served under IDEA who were placed in the general education setting for a majority of their school day (Dean & Chang, 2021).
 - ▶ The United States Department of Education has reported due to the rise in recognition of ASD, there is an increased number of students with ASD in general education and special education classrooms. Special education enrollment for children with ASD quadrupled from the years 2000 to 2010, and during the 2017–2018 academic year (Paisley et al., 2023).

After this slide, break out small group activity.

Slide 6

Small Group Activity

- ▶ Participants break up into small groups of 4-5 educators and discuss what they learned.
- ▶ Participants write down at least 3 new facts about what they learned about ASD.
- ▶ Be ready to share what your group discussed with everyone.

Slide 7

ASD Continued

- ▶ In order to successfully include students with ASD in general education classroom, the following teacher factors have been identified; knowledge of the disorder, attitudes toward inclusion, perceptions of classroom behaviors, and knowledge of effective classroom practices (D'Agostino & Douglas, 2021).
- ▶ Dean et al. (2020) explained that inclusive education can be beneficial to students with ASD because it can assist them with social development.
- ▶ Meindl et al. (2020) explained that teachers who have students with ASD in their classroom are responsible for teaching and implementing each of their students' academic and social skills.

Slide 8

ASD General Knowledge- Students with ASD

- ▶ Students with autism spectrum disorders (ASD) may have difficulties with social interactions, communication, and repetitive behaviors.
- ▶ Individuals with ASD have difficulty with maintaining conversations, eye-contact, and verbal responses.
- ▶ Students with ASD have different aspects of language comprehension and this includes semantics and incorporation of social information, verbal over thematic processing, pragmatics, and sentence structure. Students with ASD may display challenges in the classroom such as engagement, connection and communication.
 - ▶ This may result in being isolated, silenced, and misunderstood by educators and peers (Meindl et al., 2020).
 - ▶ If students are feeling misunderstood then they will not be comfortable communicating with peers and teachers.
 - ▶ This can lead to frustration and not gaining meaningful relationships.
 - ▶ Students with ASD will not be able to ask questions when they need help because they do not have the social skills and this may cause them to get confused and fall behind in their classwork.

Slide 9

Small Group Activity

- ▶ Participants break up into small groups of 4-5 educators and discuss what they learned.
- ▶ Participants write down at least 3 new facts about what you learned about ASD.
- ▶ Be ready to share what your group discussed with everyone.

Slide 10

Goals of the day

- ▶ What did we learn yesterday?
- ▶ Goals of today:
 - Goal 1: General education and special education teachers, paraprofessionals, and administrators will learn new strategies and interventions including differentiation and EBPs, academic, social, and behavioral intervention to use with students with ASD in the general education classroom.
 - Goal 2: Each participant will write 3 take aways from the day on a note card and turn the note card into the trainer.

Slide 11

Evidence-Based Practices (EBPs)

- ▶ Why do teachers need to use EBPs with students with ASD?
 - ▶ In order to have preparedness when it comes to inclusion, a teacher should have ongoing training and support for managing disruptive behaviors in inclusive education and they should learn how to meet their students' individual academic needs (Oliver-Kerrigan et al., 2021).
 - ▶ To make certain teachers meet the needs of students with ASD, it is important to be educated on EBPs and to have the training and expertise to implement them with fidelity in the classroom (Layden et al., 2022).
 - ▶ EBPs can improve outcomes for students with ASD, but only if they are used effectively by teachers (Dydia et al., 2020).

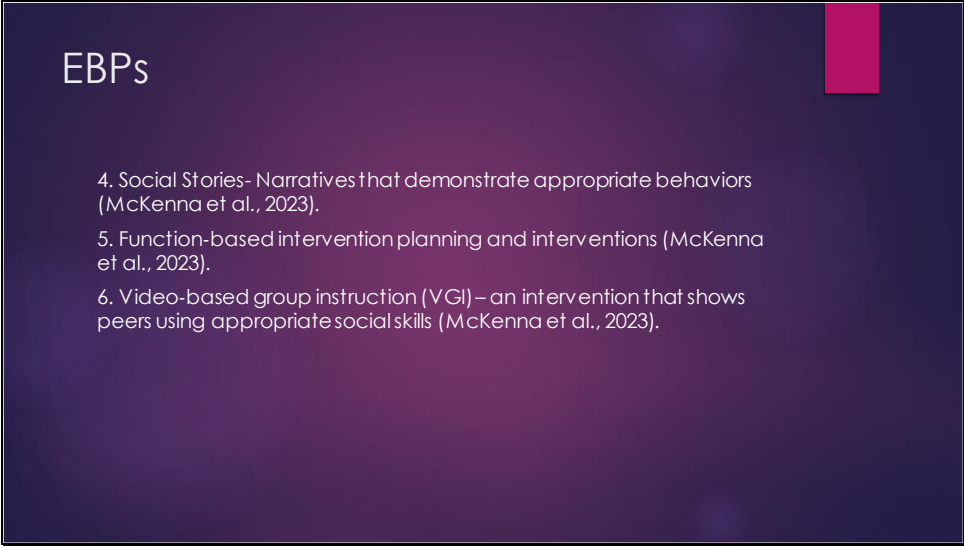
Slide 12

EBPs

1. Social Skills Group/ Functional Communication Training- a strategy in which a group of students come together and are taught different types of social skills using Applied Behavior Analysis (ABA) (McKenna et al., 2023).
2. Activity Schedules- picture schedules that promote social play with typical peers (McKenna et al., 2023).
3. Peer-Mediated Approaches- Students with ASD learn social skills through peers without ASD (McKenna et al., 2023).

Students with ASD have diverse patterns of social engagement with peers compared to their typically developing classmates. Students with ASD need to show socially proficient reciprocal play behaviors with peers to be successful in inclusion early childhood classroom but students with ASD demonstrate substantial deficits in reciprocal play interactions with peers.

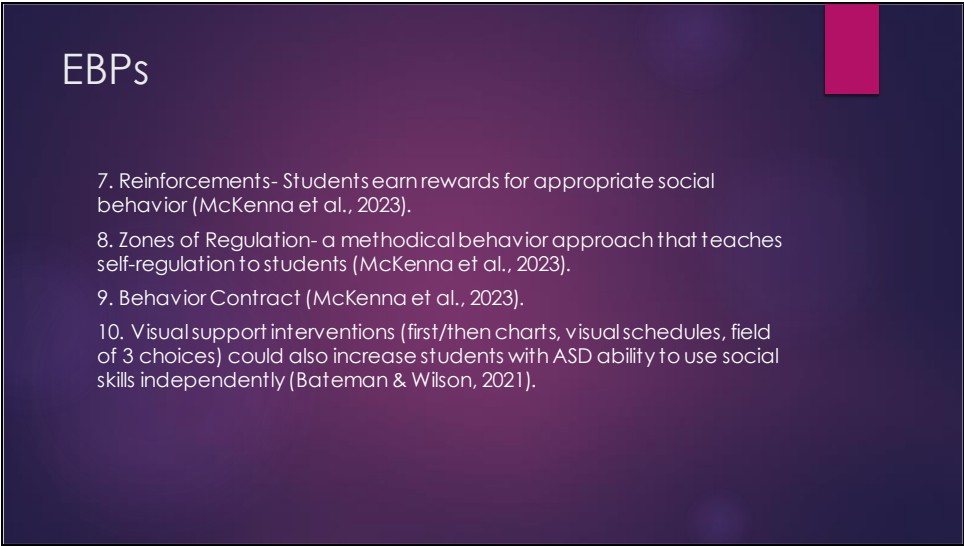
Slide 13

A dark blue slide with a pink vertical bar on the right side. The title "EBPs" is in the top left. The list items are numbered 4, 5, and 6.

EBPs

4. Social Stories- Narratives that demonstrate appropriate behaviors (McKenna et al., 2023).
5. Function-based intervention planning and interventions (McKenna et al., 2023).
6. Video-based group instruction (VGI) – an intervention that shows peers using appropriate social skills (McKenna et al., 2023).

Slide 14

A dark blue slide with a pink vertical bar on the right side. The title "EBPs" is in the top left. The list items are numbered 7, 8, 9, and 10.

EBPs

7. Reinforcements- Students earn rewards for appropriate social behavior (McKenna et al., 2023).
8. Zones of Regulation- a methodical behavior approach that teaches self-regulation to students (McKenna et al., 2023).
9. Behavior Contract (McKenna et al., 2023).
10. Visual support interventions (first/then charts, visual schedules, field of 3 choices) could also increase students with ASD ability to use social skills independently (Bateman & Wilson, 2021).

Slide 15

Small Group Activity

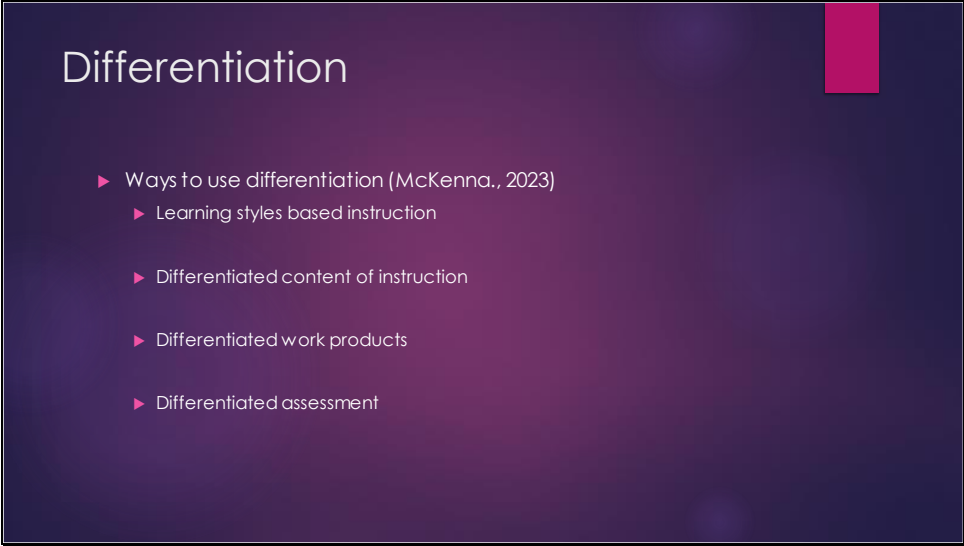
- ▶ Participants break up into small groups of 4-5 educators and discuss what they learned.
- ▶ Participants write down at least 3 new evidence-based strategies they can use in their classroom.
- ▶ Be ready to share what your group discussed with everyone.

Slide 16

Differentiation

- ▶ Definition (Riordan & Convery, 2022)
 - ▶ Differentiation takes place when students are provided with opportunities to achieve their potential by working through a variety of appropriate activities at their own pace.
 - ▶ Differentiation of instruction may concentrate on modifying content (ex. what is taught), process (ex. how students learn) and product (ex. how students demonstrate learning) according to students' readiness, interests and learning profiles.
 - ▶ Researches stress the diversity of teaching groups and the need to accommodate teaching to a variety of diverse learner.
 - ▶ Teachers should respond to learner differences.

Slide 17



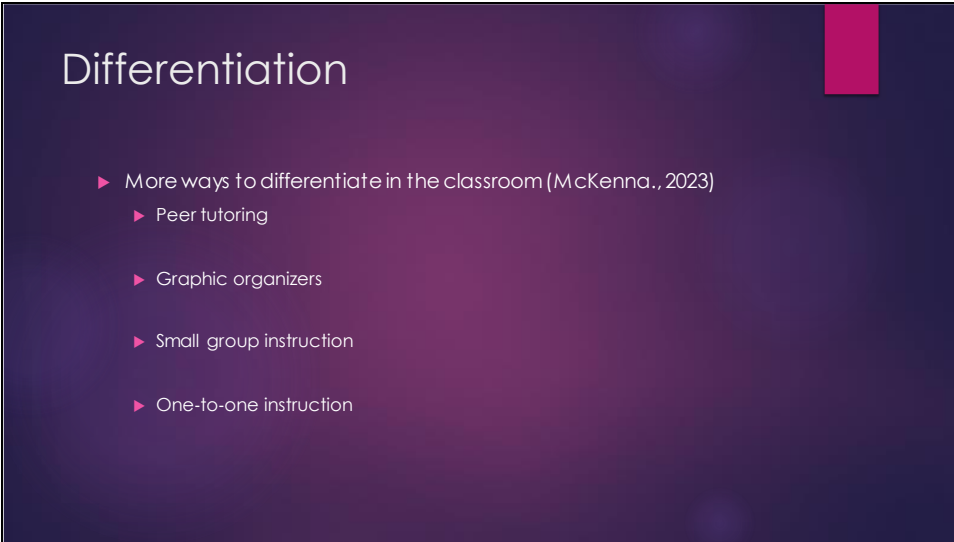
Slide 17 is a presentation slide with a dark purple background and a pink vertical bar on the right. The title "Differentiation" is in white at the top left. Below it is a bulleted list of four items, each preceded by a pink triangle. The items are: "Ways to use differentiation (McKenna., 2023)", "Learning styles based instruction", "Differentiated content of instruction", "Differentiated work products", and "Differentiated assessment".

Differentiation

- ▶ Ways to use differentiation (McKenna., 2023)
 - ▶ Learning styles based instruction
 - ▶ Differentiated content of instruction
 - ▶ Differentiated work products
 - ▶ Differentiated assessment

Have teachers give an example for each bullet point. Discover if teachers can define the correct terms. Have an open discussion about how teachers use the different types of differentiation in the classroom or how I use them from experience.

Slide 18



Slide 18 is a presentation slide with a dark purple background and a pink vertical bar on the right. The title "Differentiation" is in white at the top left. Below it is a bulleted list of four items, each preceded by a pink triangle. The items are: "More ways to differentiate in the classroom (McKenna., 2023)", "Peer tutoring", "Graphic organizers", "Small group instruction", and "One-to-one instruction".

Differentiation

- ▶ More ways to differentiate in the classroom (McKenna., 2023)
 - ▶ Peer tutoring
 - ▶ Graphic organizers
 - ▶ Small group instruction
 - ▶ One-to-one instruction

Have teachers give an example for each bullet point. Discover if teachers can define the correct terms. Have an open discussion about how teachers use the different types of differentiation in the classroom or how I use them from experience.

Slide 19

Small Group Activity

- ▶ Participants break up into small groups of 4-5 educators and form a circle.
- ▶ One participant will start with a ball and tell the group one way they can differentiate a lesson in their class. Then they will toss the ball to another educator. That educator will then share with the group a way they can differentiate a lesson in their classroom (This can be a very simple way and does not have to be in great detail). If you get stuck ask another educator for help.
- ▶ When all educators have shared, please sit back down in your seat.

Slide 20

Goals of the day

- ▶ What did we learn yesterday?
- ▶ Goals of today:

Goal 1: General education and special education teachers, paraprofessionals, and administrators will learn about the importance of team collaboration when it comes to including students with ASD in the general education classroom.

Goal 2: General education and special education teachers, paraprofessionals, and administrators will learn about research-based co-teaching models.

Goal 3: Each participant will write 3 take aways from the day on a note card and turn the note card into the trainer.

Slide 21

Collaboration

- ▶ Parent Involvement
 - ▶ Parents are members of an IEP team and participate in the IEP meetings. All members in a student with ASD's educational team such as the parent, teacher, and clinician can add useful information in determining prime intervention strategies (Rosen, 2019).
 - ▶ Dekker et al. (2021) discussed that parental involvement seemed to have help improve students with ASD social skills compared to when parents are not involved with social skills training.
 - ▶ Students with ASD general language abilities are impacted by the quality of their relationships with individuals in their teachers, peers, and family (Feldman et al, 2019).
 - ▶ Parents of students with ASD receive a better sense of parenting self-efficacy when they feel more involved in their child's therapy and they also feel more satisfied with the training they obtain on the therapies their child is currently receiving with the therapists (Kurzrok et al., 2021).
 - ▶ Parents are vital to addressing the developmental needs of students with ASD because they are one of the first individuals to identify signs of ASD, participate or lead in the diagnostic process, and implement interventions (Estes et al., 2021).

Slide 22

Collaboration

- ▶ Administration
 - ▶ Administrators play an important role in schools because their leadership qualities contribute to instructional development (Mathews et al., 2024).
 - ▶ It is also important for administrators to provide teachers with effective strategies, ongoing training and support for managing disruptive behaviors (Oliver-Kerrigan et al., 2021).
- ▶ Paraprofessionals
 - ▶ Paraprofessionals play an important role in supporting and providing individualized services to students with ASD. They should be provided with adequate PD which includes coaching (Horn et al., 2022).
 - ▶ It is important to provide valid PD practices that prepare early childhood paraprofessionals to assist teachers who work with students with ASD (Frantz et al., 2022).

Slide 23

Small Group Activity

- ▶ Participants break up into small groups of 4-5 educators and discuss what they learned.
- ▶ Participants write down at least 2 benefits of collaboration.
- ▶ Be ready to share what your group discussed with everyone.

Slide 24

Co-teaching models

- ▶ Collaborative models of instruction have been applied in classrooms since the 1950s. The models include co-teaching which involves collaboration between general and special education teachers, but also include paraprofessionals. The team may combine the general teacher's in-depth knowledge of the curriculum and the specialized knowledge of the special education teacher about differentiating instruction to the needs of SWDs. (Vembye et al., 2024).
- ▶ One of the most popular methods for supporting SWDs in inclusive settings is co-teaching.
- ▶ Co-teaching is when the general education teacher and the special education teacher, related service provider (e.g., SLP, occupational therapist), or noncertified staff (e.g., paraprofessional) equally deliver instruction to students with and without disabilities in a general education classroom (Zimmerman et al., 2023).

Discuss that the co-teaching literature frequently believes that co-teaching following the models one-teach-one-observe are ineffective since they do not take full advantage of the knowledge of both general and special education teachers. Literature emphasized that co-teaching is most effective when using a variety of co-teaching models (Vembye et al., 2024).

Slide 25

Types of Co-Teaching

- ▶ Station Teaching
- ▶ One teach, One Assist
- ▶ One teacher, One paraprofessional

Slide 26

Station Teaching

- ▶ Definition: an approach that requires dividing the students into three groups: two groups work in teacher-led stations while the third group completes independent work. Each teacher delivers instruction about one part of the lesson at a station; students rotate through all stations so that both teachers work with students in all three groups (Weiss et al., 2020).
- ▶ There are three important dimensions of curriculum (a) time, (b) content, and (c) quality.
- ▶ The time assigned for a co-taught class session is generally the same as that of a individually taught class. The general education content for the class remains approximately the same as for individually taught classes but the IEP curriculum adds additional content. The most important dimension with the highest potential for changeability in the co-taught classroom is the quality of instruction (Weiss et al., 2020).

Slide 27

One Teach, One Assist

- ▶ The one-teach, one-assist approach is when the teachers keep students in a single group; one teacher delivers the lesson while the other provides brief periods of support for individual students who have questions, require additional explanations, or need behavioral prompting (Vembye et al., 2024).
- ▶ In multiple studies, the one-teach, one-assist approach is the one most often observed. This is due to mainstream teachers being provided with suggestions for instructional changes but there were no clear indications about whether the teachers actually implemented those strategies. There was no clear indication that specialists were utilized in most advantageous ways (Vembye et al., 2024).
- ▶ The act of placing special education teachers in co-taught classrooms alone is not enough to guarantee adequate instruction is being provided to students with disabilities. Guidance and support must also be provided (Vembye et al., 2024).

Slide 28

One Teacher, One Paraprofessional

- ▶ This model is similar to the one teach, one assist model but instead of having one general education teacher and special education teacher, there is one teacher and one paraprofessional (Vembye et al., 2024).
- ▶ Having a paraprofessional in the classroom can increase student achievement because paraprofessionals can serve as role models, showing students that the content is valued by adults other than the teachers. They also serve as additional support by assisting in scaffolding student learning, providing more in-depth learning, and ensuring that students are more active during lessons (Vembye et al., 2024).
- ▶ Paraprofessionals assist with behavioral issues in the classroom and they can also help the teacher with giving students positive reinforcement.

Have participants break out in groups for small group activity.

Slide 29

Small Group Activity

- ▶ Participants break up into small groups of 4-5 educators and discuss what they learned.
- ▶ Participants write down a co-teaching strategy/model they want to use and why they chose that strategy/model.
- ▶ Be ready to share what your group discussed with everyone.

Slide 30

Reflection Activity

- ▶ In a small group, please discuss take aways from the day and what you learned from the day.
- ▶ Each participant will write 3 take aways from the day on a note card and turn the note card into the trainer.

Slide 31

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Appendix B: Participation Letter

Dear Colleague,

I am conducting a project study and I am asking your permission to participate in my qualitative study. The purpose of this basic qualitative study is to explore the successes and challenges that general and special education experience when educating pre-kindergarten through second grade students with ASD in inclusive classrooms at a Midwest school. The participants will be interviewed about the successes and challenges that you experience when educating pre-kindergarten through second grade students with ASD in an inclusive classroom. The interviews will be conducted in person or virtually based on the preference of the participant. The participant's name and the school will remain confidential in the qualitative study. Please note that the interview will be recorded and the interviewer will be taking notes throughout the interview.

The participants will be given a copy of the coding that was developed from their interview. To ensure accuracy and credibility of the findings, the participants will be asked to review the themes that emerge from the interview. Participants can add or delete data from the coding in their transcripts if they do not agree with the interpretation of the data.

Please contact me if you are interested in participating in this project study. If you have any questions about the interview or study, please do not hesitate to ask me.

Thank you,

Rosana Camargo

Appendix C: Interview Protocol

Interviewer:

Interviewee:

Date:

Time:

Location:

In today's interview we will discuss the trainings needed for general and special education teachers when including pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school.

Interview for General Education Teachers:

RQ 1: What are the trainings needed for general education teachers when including pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school?

1. What grade-level do you teach?
2. How many years have you taught students with ASD in a general education classroom?
3. What training have you previously received on including students with ASD in a general education classroom?
4. What EBPs do you use in your classroom when it comes to teaching students with ASD?
5. What social and behavior interventions do you use when it comes to teaching students with ASD in the general education classroom?
6. What interventions in your classroom have been successful when it comes to teaching students with ASD in the general education classroom?
7. What trainings are needed for general education teachers when including pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school?

Interview for Special Education Teachers:

RQ 2: What are the trainings needed for special education teachers when including pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school?

1. What grade-level do you teach?
2. How many years have you taught students with ASD in a general education classroom?

3. What training have you previously received on including students with ASD in a general education classroom?
4. What EBPs do you use in your classroom when it comes to teaching students with ASD?
5. What social and behavior interventions do you use when it comes to teaching students with ASD in the general education classroom?
6. What interventions in your classroom have been successful when it comes to teaching students with ASD in the general education classroom?
7. What trainings are needed for special education teachers when including pre-kindergarten through second grade students with ASD in general education classrooms at a Midwest school?

Closing

Do you have any questions for me?

Answer any questions participants may have.