

Article	Evidence of Tension	Solutions/Evidence to Support Solutions
<p>Leblanc, L., Richardson, W., & Burns, K. A. (2009). Autism Spectrum Disorder and the Inclusive Classroom: Effective Training to Enhance Knowledge of ASD and Evidence-Based Practices. Teacher Education and Special</p>	<p>Lack of Teacher Knowledge/Training</p> <p>Increased rates of ASD/diverse needs</p> <p>Shift in System</p> <p>Issues Caused by Tension</p> <p>Needed Changes</p> <p>Importance of Change</p> <p>More children are being diagnosed with ASD, and as such,</p> <p>As well-intentioned as the "full inclusion" movement has been during the past two decades, however, many concerns still remain, with the integration of the identified autistic student into the mainstream classroom being no exception (p. 167)</p> <p>Here in the province of Ontario, enrolment, as it relates to the general autism category, has seen a 58% increase over a recently studied seven year period (Weber & Bennett, 2004), with several American studies noting a similar proliferative pattern (Yazbak, 2003). Without question, teaching students with ASD can be a very challenging proposition because many of the symptoms associated with the disorder can severely interfere with learning (Ruble & Dalrymple, 1996). Different learning styles, difficulty communicating, impairment in social interactions, resistance to change in routines, repetitive body movements, and speech patterns are some of the characteristics of ASD that can cause stress and a</p>	<p>Explanation of PD</p> <p>Goals of PD</p> <p>Evidence to Support Additional PD</p> <p>It was in direct response to many of the sentiments expressed directly above that, in September 2004, the School Support Program-Autism Spectrum Disorder (SSPASD) was launched as part of the ongoing commitment of the Ministry of Children and Youth Services to enhancing educators' ability to meet the needs of students identified with an ASD (Ministry of Children and Youth Services, 2004). The primary purpose behind the initiative was and is to, in partnership with the Ministry of Education and the nine Regional Autism Programs in Ontario, tailor and deliver enhanced support to Ontario's publicly funded school boards and school authorities (p. 168).</p> <p>two of its overriding goals are the augmentation of the general knowledge base of educators regarding both the characteristics of students with ASD and the evidence-based practices used to best support children and youth with ASD. As the lead agency, Algonquin Child and Family Services employs seven ASD consultants who are individually assigned to work</p>

Education, 32(2), 166–179. Retrieved from <https://proxy.library.upei.ca/login?url=http%3a%2f%2fsearch.ebscohost.com%2flogin.aspx%3fdirect%3dtrue%26db%3dERIC%26AN%3dEJ863797%26login.asp%26site%3dehost-live%26scope%3dsite>

variety of problems for both students and educators within the fully integrated classroom.

Both classroom and resource teachers stated that their workload and stress levels had increased significantly because they were left to cope with low levels of support in dealing with "exceptional" students, which, in turn, resulted in Students not having their targeted needs met (Naylor, 2002). (p. 167/168).

Students not having their targeted needs met (Naylor, 2002). These general results are also confirmed by many other studies that have consistently highlighted feelings of teacher inadequacy when it comes to effectively dealing with children with identified "special needs" in the mainstream classroom (Dimitrios & Panagiota, 2005; Monahan, Miller, & Cronin, 1997; Schumm & Vaughn, 1992). In attempting to identify the genesis of these less than positive feelings toward including students with learning and behavioral differences into the mainstream classroom, many studies have pointed to a general lack of training, particularly at the university level (Csapo, 1981; Ivey & Reinke, 2002; Sherrill, 199 (p. 168)

Furthermore, Bradfield and Fones (1985) found that stress of any kind within the profession had a negative impact not only on the teacher and the learning process but also on the general attainment of most identified educational goals. They also found that stress diminished the level of overall job satisfaction, which, reciprocally, tended to dampen levels of energy and creativity in the classroom. Similar findings, as they specifically correlate to autism, were noted by Jennett, Harris, and Mesibov (2003), who, among several other recommendations, emphasized the need for adequate training for all teachers who work with students who are identified as having ASD. Therefore, as is consistently reinforced by an abundance of literature that has been generated within the larger "special

with school boards and other designated school authorities. The ASD consultants offer four main services that include promoting the efficient use of resources and strong partnerships in the delivery of services, consultation services designed to enhance the skills and knowledge of school board personnel, training services geared to building capacity by directly transferring knowledge and skills, and, finally, resource development to aid those involved in providing effective frontline services to children and youth with an ASD (p. 168)

Training, in particular, has been consistently shown to have a positive influence not only on the general philosophical views of mainstream teachers linked directly to the broad concepts of integration and inclusion but also on their perceived abilities to program for and teach within the "special" educational domain (Glass & Meckler, 1972; Thousand & Villa, 1989). (p. 169)

The program's overall mandate in terms of training are to • enhance knowledge with respect to the characteristics of students with ASD, and • enhance the knowledge and skills with respect to principles and techniques of applied behavior analysis (ABA), other effective behavioral teaching strategies, and how they may support students with ASD in elementary and secondary schools. (p. 170)

Each experimental group received a total of 200 minutes (or slightly more than 3 hours) of instructional training offered by the ASD consultants. The training was aimed at increasing their knowledge of ASD and evidence-based practices used to support children with ASD. For each of the three experimental groups, two training sessions were separately conducted, one week apart. Two ASD consultants conducted the first training session, and two different ASD consultants conducted the

education" field, it would appear to be important not only to support teachers in truly inclusive classroom settings but also to help them find better ways to diminish some of the major Stressors involved in effectively doing their jobs (Stanovich, 1999; Valeo & Bunch, 1998). (p. 168)

Of course, by doing so, the view is that capacity within the system as a whole to deal with exceptional and/ or extraordinary educational needs will be greatly enhanced. In short, reducing stress and anxiety within a mode! that currently requires boards of education, schools, and classrooms to make adaptations based on the sometimes quite unique and very individual needs of the students will require all educational stakeholders to have at least a working knowledge of ASD and some general idea as to how it can be effectively programmed for in the "regular" classroom environment. (p. 168)

Without exception, within this dynamic, teachers are seen as playing a critical role n helping students with ASD overcome many challenges, but particularly those they face in fully inclusive educational settings (Schucrinann & Webber, 2001). Consequently, when it comes to programming, it is vital that teachers and other school board personnel have the training, the knowledge, and all the support they require in ensuring that the needs of all students with ASD are being completely taken into consideration and effectively handled (Salend, 1999; Scruggs & Mastropieri, 1996a). (p. 169)

Given the demands of the profession and of education curriculum in particular, and with the increasing prevalence of ASD, it is critical that professionals in the field of education increase their knowledge and understanding of ASD and that they be easily able to access the supports and resources required to meet the diverse needs of all students diagnosed with the disorder. (p. 176)

latter session (a total of four consultants). The first presentation related to general knowledge about ASD. The learning objectives for this training session were for participants to be able to • understand the autism spectrum, the specific characteristics of ASD, and the diagnostic criteria for the different disorders on the autism spectrum; • recognize the communication learning styles of students with ASD; define functional behavioral analysis and applied behavioral analysis; and • identify and apply strategies to meet the needs of students with an ASD in the classroom. The second presentation related to the stress and anxiety experienced by a child with an ASD and focused on teaching strategies and techniques that can be used to assist a child with an ASD (and consisted of some group activity). The learning objectives for this training session were for participants to be able to • describe tools used in assessing stress and anxiety, • identify factors that affect motivation and influence behavior, • recognize the broad range of strategies that can be used to teach social skills, and • apply strategies to help decrease anxiety levels (p. 171).

Paired-samples t test results strongly suggest that the training component of the North East region's SSP did enhance the participants' general, overall knowledge of ASD and evidence-based practices used to support children with ASD. The total ASD Inventory pretest mean average score (M=9.6,SD = 3A) was significantly lower than the posttest mean score (M = 14.75. SD = 4.5), $r(71) = -8.12,;? = .00$, indicating that participants, on average, had a significantly higher total ASD Inventory score after receiving the training. An analysis of the three main ASD Inventory sections (related to a specific hypothesis) also indicated that the training component of the ASD program was successful and showed significant,

positive results for each of the three main ASD Inventory sections (i.e., perceptions, technical knowledge, and teaching strategies).

FIGURE 1

Knowledge of how to access professional support and resources to assist a participant in meeting the needs of a student with an ASD resulted in the most significant difference ($M = 1.99$, $SD = 0.79$; $M = 2.26$, $SD = 0.67$), $t(73) = -2.01$, $p = .010$, followed by the belief that a student with an ASD can be successfully integrated into a regular classroom with proper support and training ($M = 2.14$, $SD = 0.68$; $M = 2.5$, $SD = 0.58$), $t(72) = -3.84$, $p = .000$. The results also suggest that as a result of the training, the participants, on average, indicated they would feel more comfortable teaching in a classroom with a student with an ASD ($M = 2.06$, $SD = 0.75$; $M = 2.10$, $SD = 0.69$), $t(73) = -7.82$, $p = .000$.

Technical knowledge of ASD and evidence-based practices used to teach students with ASD also increased as a result of the 200 minutes of instruction provided by the ASD consultants, as the pretest mean score ($M = 3.85$, $SD = 2.1$) was significantly lower than the posttest mean score ($M = 6.36$, $SD = 2.75$), $t(72) = -6.35$, $p = .00$. These results support the second hypothesis of the study, which was to enhance the knowledge and skills with respect to principles and techniques of ABA.

With direct reference to this, despite a very limited amount of strategically placed professional development, facilitated within the confines of a teacher training program, the results have clearly indicated that participants' knowledge of ASD and evidence-based practices has increased significantly, with

		<p>overall comfort levels with potentially having an autistic student integrated into the mainstream classroom measurably affected in a positive way. To restate, a favorable change in the participants' perceptions and attitudes toward students with ASD and an increase in their technical knowledge of ASD and evidence-based practices for teaching students with an ASD (e.g., teaching strategies) occurred after the participants received the SSP-ASD training</p>
Article	<p>Evidence of Tension</p> <p>Increased rates of ASD/diverse needs</p> <p>Challenges of Educating Students with ASD</p> <p>Importance of Training Early</p> <p>Lack of Teacher Knowledge/Training</p> <p>Shift in System</p> <p>Issues Caused by Tension</p> <p>Needed Changes</p> <p>Importance of Change</p>	<p>Solutions/Evidence to Support Solutions</p> <p>Explanation of PD/education/training etc.</p> <p>Goals of PD/education/training etc</p> <p>Evidence to Support Additional PD</p> <p>Implications for Training</p>
<p>Rinaldi, M. L., Christodulu, K. V., & Corona, L. L. (2017). Investigation of School Professionals'</p>	<p>As the prevalence of autism spectrum disorder (ASD) has increased in recent years, so too has the number of children with ASD served in school settings. The Centers for Disease Control and Prevention (CDC; 2014) reported in 2014 that one in 68 children has been identified as having ASD, representing a considerable increase from one in 110 in 2011. With this increased prevalence and recognition has come increased attention to the</p>	<p>The PTR model incorporates strategies known to be effective in addressing problematic behavior, including conducting FBAs to provide individualized information about the purpose of behaviors, modifying the environment, providing instruction in alternative behaviors, and effectively using reinforcers (Dunlap et al., 2010). In particular, the PTR model emphasizes the use</p>

<p>Self-Efficacy for Working With Students With ASD: Impact of Prior Experience, Knowledge, and Training. <i>Journal of Positive Behavior Interventions</i>, (2), 90. Retrieved from https://proxy.library.upei.ca/login?url=http%3a%2f%2fsearch.ebscohost.com%2flogin.aspx%3fdirect%3dtrue%26db%3dedsga%26AN%3dedsgcl.506531699%26site%3dedsg-live%26scope%3dsite</p>	<p>educational needs of students with ASD.</p> <p>Much has been written about the challenges of educating students with ASD, including the heterogeneity of the population (e.g., Segall & Campbell, 2014), the difficulty in fostering high-quality student-teacher relationships (e.g., Blacher, Howell, Lauderdale-Littin, Reed, & Laugeson, 2014), and the sometimes fraught interactions between educators and families of students with ASD (e.g., White, 2014). The unique needs of students with ASD require teachers and school professionals to create individualized plans and supports, provide specialized curriculum content and learning environments, and address interfering and problematic behaviours (Iovannone, Dunlap, Huber, & Kincaid, 2003). P 90</p> <p>Yet, factors such as role overload and challenging student behaviors have been linked with high rates of exhaustion, stress, and burnout among special education teachers (Brunsting, Sreckovic, & Lane, 2014), and there is some evidence that teachers of students with ASD may be at particularly high risk of experiencing burnout (Coman et al., 2013).p90</p> <p>In particular, both teacher training and teacher self-efficacy have been implicated as potentially protective against burnout (Jennett, Harris, & Mesibov, 2003). At present, there exist comprehensive guidelines regarding evidence-based practices (EBPs) to address the needs of students with ASD (National Autism Center [NAC], 2015; Odom, Collett-Klingenberg, Rogers, & Hatton, 2010), yet EBPs are implemented inconsistently in school settings (e.g., Hess, Morrier, Heflin, & Ivey, 2008). hypothesized that training in EBPs may be linked to teacher self-efficacy for working with students with ASD. p 90/91</p>	<p>of “Prevent” strategies that manipulate the environment or behavioral antecedents, “Teach” strategies that provide instruction in alternate behavior, and “Reinforce” strategies that arrange the contingencies and consequences of behavior. The PTR model requires that intervention plans be based on FBA data and include at least one component each of Prevent, Teach, and Reinforce strategies. The model has been demonstrated to be effective with students with ASD, both in reducing problematic behavior and increasing engagement (Iovannone et al., 2009; Strain, Wilson, & Dunlap, 2011).</p> <p>The training sessions, detailed below, were designed to improve the ability of schools to serve students with ASD by providing information, resources, and consultation to a core group of school professionals who work closely with students with ASD.</p> <p>Training on ASD and EBPs was provided by a university-affiliated autism center and included information about PBS generally and the PTR model (Dunlap et al., 2010) specifically. Trainings were conducted separately in each school by two to three individuals with master’s degrees in education, social work, or behavior analysis. Training sessions took place in three phases over the course of approximately 2 to 3 months. Training sessions followed the procedures of the PTR model, including goal setting, conducting an FBA, planning and implementing an intervention, and evaluating the intervention effectiveness (Dunlap et al., 2010). The first phase included approximately 10 hr of training over 2 consecutive days and served as introduction and planning. First, information was provided to school professionals regarding ASD and associated characteristics,</p>
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self-efficacy is defined as an individual's beliefs that he or she can produce the behavior required to bring about a given outcome (Bandura, 1977). Teacher self-efficacy has a long history in the education literature, with evidence documenting its impact on both teacher behavior and student outcomes (Klassen, Tze, Betts, & Gordon, 2011).

Ross (1998) reported that higher teacher self-efficacy has been associated with a range of beneficial teaching practices. These include setting more ambitious goals for oneself and one's students, selecting instructional strategies likely to improve student development, experimenting with new instructional programs in the classroom, and involving parents in student activities. More recent research has suggested that teachers with high self-efficacy provide more support to students and create a more positive classroom environment (Guo, Connor, Yang, Roehrig, & Morrison, 2012).

teacher self-efficacy has been associated with student outcomes including achievement in various academic subjects, enhanced motivation, and increased self-esteem and prosocial attitudes. Recent research has continued to document associations between teachers' self-efficacy and student achievement, as measured by student literacy skills (Guo et al., 2012) and by final grades at the end of the school year (Caprara, Barbaranelli, Steca, & Malone, 2006).

Klassen and Chiu (2010) reported a non-linear relation between self-efficacy and experience, suggesting that self-efficacy may increase during the early part of teachers' careers but later begin to decline. Tschannen-Moran and Hoy (2007) suggested that

PBS principles, the PTR model, and methods of data collection for tracking student behavior. Information was conveyed through didactic presentations and illustrated with discussion of case examples. Next, school professionals worked in one or two groups to apply this information to case examples, the school team applied the process to their selected students, conducting an FBA and creating a behavior intervention plan with feedback from the trainers. Following the end of the second phase of training, the school team was asked to implement the designed intervention plan and to continue collecting behavioral data over the course of 3 to 4 weeks. The third and final phase of training took place during a single day (i.e., 5 hr) dedicated to reviewing student progress and problem solving. Student behavior data following the intervention implementation were reviewed, and strategies for moving forward from either negative or positive behavior change were discussed.

Findings highlighted the impact of training, with prior training in ASD and PBS emerging as significant predictors of self-efficacy for working with students with ASD. In addition, school professionals' knowledge and self-efficacy increased following participation in a training on ASD and PBS, providing preliminary evidence that training in EBPs may enhance school professionals' belief in their abilities to successfully work with students with ASD. These self-efficacy beliefs may be particularly important for individuals working with students with ASD, given the unique needs of the ASD population (Iovannone et al., 2003) and the heightened risk of burnout among teachers with ASD (Coman et al., 2013). Taken together with existing evidence on positive outcomes associated with teacher self-efficacy (e.g., Ross, 1998), the present

experience may play a moderating role, with self-efficacy of novice teachers more susceptible to contextual factors such as resource availability than the self-efficacy of experienced teachers.

In particular, the authors were interested in teachers' degree of commitment to the principles of ABA or TEACCH, and whether commitment to either of these two philosophies was related to teacher self-efficacy and teacher burnout. Indeed, higher levels of commitment to either philosophy were correlated positively with teacher efficacy. There was also evidence that, for some teachers, a higher degree of commitment to a teaching philosophy was associated with greater feelings of personal accomplishment and less reporting of emotional exhaustion (Jennett et al., 2003). The connection between teacher self-efficacy and teachers' alignment with a particular philosophy of working with students with ASD directs attention to the likely importance of the training teachers receive to work with this population. Both ABA and TEACCH are well-established models for working with students with ASD (Mesibov & Shea, 2010), noteworthy for their inclusion of EBPs. The use of EBPs in the education of students with ASD is recognized as both important and significantly challenging (Odom et al., 2010). Increasing teachers' use of EBPs is expected to yield a corresponding increase in student achievement (Simpson, 2005), but the identification and implementation of EBPs are complex processes (Odom et al., 2010).) p. 91

Despite the emphasis on EBPs and the suggestion that use of EBPs may be tied to teacher self-efficacy (Jennett et al., 2003), knowledge regarding evidence-based strategies is not consistently translated into practice in school set-

findings highlight the need for providing quality training to school professionals working with students with ASD. p.96

The importance of training for school professionals who work with ASD has been emphasized numerous times (e.g., Alexander et al., 2015; Barnhill et al., 2014). It has been argued that training is particularly imperative for individuals who work with students with ASD, due to factors including deficits in communication and social interaction often characteristic of students with ASD, the need for coordination of services for students with ASD, and the likelihood that teachers must utilize specialized instruction techniques for these students (Scheuermann, Webber, Boutot, & Goodwin, 2003). Scheuermann et al. contended that professionals who work with students with ASD must not only be knowledgeable about ASD but also be competent in the use of strategies for teaching communication skills, teaching social skills, and addressing adaptive behavior deficits and problem behaviors. With training in these areas, teachers are likely to feel more confident and competent working with students with ASD, enhancing their self-efficacy beliefs in ways that ideally will ultimately benefit their students (Ross, 1998). The present finding that training in ASD and PBS are associated with self-efficacy for working with students with ASD provides preliminary evidence for this link.

Whereas self-reported prior training in ASD and PBS were both associated with school professionals' self-efficacy, knowledge about ASD and prior years of experience working with students with ASD were not. The finding that experience working with the ASD population is not associated with higher self-efficacy is not unprecedented in the Literature.

tings. In one study of strategies used in educational settings with students with ASD, less than 5% of educators used EBPs with their students with ASD, and only one third of educators used any strategy rated as either evidence-based or promising (Hess et al., 2008). Because research has suggested that individual teacher characteristics such as education level, years of teaching students with ASD, and type of classroom are not predictive of EBP use (Morrier, Hess, & Heflin, 2011), research has turned to teacher training to help explain the research–practice gap.p. 92

Studies of teacher training have sought to determine whether new teachers begin their careers with knowledge of EBPs. In one study, most teacher training programs taught behavioral intervention strategies, but less than half of the EBPs published by the National Professional Development Center (Odom et al., 2010) were taught to new teachers (Alexander, Ayres, & Smith, 2015). In another study, there was a great deal of variability in the availability of teacher training programs focused on ASD (Barnhill, Sumutka, Polloway, & Lee, 2014). Even among institutions offering courses on ASD, many do not cover the topic fully, and not all address EBPs (Barnhill et al., 2014). Thus, although EBPs are available, teachers do not consistently perceive training in these practices, and they, therefore, are not consistently used in schools.
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The finding that knowledge about ASD and PBS was not correlated with self-efficacy for working with students with ASD was also unexpected. The knowledge questionnaire

used in the present study was tailored specifically to the content provided in the training on ASD and EBPs. It was anticipated that greater knowledge about these topics would enable school professionals to utilize strategies shown to be effective for working with students with ASD, which in turn was expected to bolster feelings of self-efficacy. However, the internal consistency of the knowledge questionnaire was lower than desired, suggesting that a more reliable measure of knowledge may be needed. It also may be the case that knowledge alone is not sufficient to enable school professionals to feel efficacious in working with students with ASD, suggesting a potential need for training strategies that move beyond didactic lectures and seminars to offer direct coaching and feedback, as suggested by Morrier et al. (2011).

the present study provided preliminary evidence that a training on ASD and EBPs may have a positive impact on both knowledge about and self-efficacy for working with students with ASD. This finding is in line with work by Jennett et al. (2003), who reported that commitment to a particular philosophy for working with students with ASD is correlated with teachers' self-efficacy. To the extent that commitment to a teaching philosophy is reflective of training in that philosophy, it would seem that training in strategies that are effective for working with students with ASD plays a key role in self-efficacy. Ross (1998) wrote that of interventions that have attempted to increase teacher self-efficacy, successful interventions may be those that target teacher skills, especially

		<p>when teachers implement the intervention and engage in discussion on the topic with their peers. It may be that the present training, which was conducted in a group format, provided the opportunity for school professionals to engage in discussion with their colleagues regarding EBPs and their confidence in implementing them.</p> <p>Currently, more is known than ever before about effective practices for students with ASD. The training used in the present study focused on the PTR model (Dunlap et al., 2010), which uses evidence-based strategies for working with students with ASD. Moreover, the training targeted and addressed documented barriers to implementation of EBPs in school settings, including staff selection, program evaluation, ongoing consultation, and administrative support (Cook & Odom, 2013). Including a variety of school personnel in the training and requiring the participation of an administrator are expected to increase the likelihood that strategies discussed during the training will be implemented. In addition, by conducting training over a period of several months, trainers were able to provide ongoing feedback and address participants' needs and concerns.</p>
Article	<p>Evidence of Tension</p> <p>Increased rates of ASD/diverse needs</p> <p>Challenges of Educating Students with ASD</p> <p>Importance of Training Early</p>	<p>Solutions/Evidence to Support Solutions</p> <p>Explanation of PD/education/training etc.</p> <p>Goals of PD/education/training etc</p> <p>Evidence to Support Additional PD</p>

	<p>Lack of Teacher Knowledge/Training</p> <p>Shift in System/History</p> <p>Issues Caused by Tension</p> <p>Needed Changes</p> <p>Importance of Change</p>	<p>Implications for Training/Practice</p>
<p>Sugita, T. (2016). Current Trends in Psychological and Educational Approaches for Training and Teaching Students with Autism in California. <i>International Electronic Journal of Elementary Education</i>, 9(2), 307–316.</p>	<p>Autism Spectrum Disorder (ASD) is the fastest growing disability within the United States. In the state of California, the prevalence rate of ASD is growing at an even faster and more alarming rate (Brock, Huber, Carter, Juarez, & Warren, 2014). As the rate of ASD increases, an increased need for expertise in ASD has become critically apparent in the field of education.</p> <p>Psychological and educational approaches for training and teaching students with ASD in California continue to evolve; however, a significant gap between theory and practice remains. Recent trends towards inclusive classrooms have reiterated the importance for both general and special education teachers to feel comfortable and competent implementing evidence-based strategies and supports for students with ASD (Lubas, Mitchell, & De Leo, 2016). Special education teacher education training programs have shifted practices to address evidence-based strategies and supports for students with ASD; however, little progress in training and professional development have trickled down to local schools (Simpson, deBoer-Ott, Smith-Myles, 2003).</p> <p>A current shift in pre-service training provides targeted instruction on ASD and prepares teachers to leave their preparation programs ready to meet the unique needs of students with ASD; however, such</p>	<p>According to the California Department of Education (2015), approximately 28.3 % of school-age students identified with ASD are of Asian descent, 16.8% identified as having more than one ethnicity, 10.5% of students with ASD are of African American descent, 15.6% white, and 9.7% Hispanic. These statistics are important to note as pre-service teacher training programs in California need to address not only the increase prevalence of ASD but in addition, culturally responsive practices. Culturally responsive practices integrate individual student's cultural references in the learning process (Ladson-Billings, 1994). For students with ASD, integrating culturally responsive teaching practices is imperative because it provides a context for learning.</p> <p>Three current educational approaches for teaching students with ASD are examined below: (1) interdisciplinary collaboration, (2) progress monitoring, and (3) academic social interaction skills training.</p> <p>At the crux of a successful inclusive model is shared responsibility and shared decision making among general educators, special educators, and support personnel (Simpson, et al., 2003). As students with ASD are being served</p>

teachers are often faced with a field that has not had proper training and support to implement evidence-based strategies (Lubas, et al., 2016; Mastropieri & Scruggs, 2001). This issue has caused a huge gap in the field, creating a sense of urgency for professional development in local districts. Additionally, a need for evidence-based interventions and supports are needed for teachers, parents, and students.

The estimated growth of ASD has increased by 78% between 2002 to 2012 (Brock et al., 2014).

From 2000-2015, children with ASD have increased by 584%, approximately 41.71% per year. Within this increase of ASD, 98.7% of the increase was from a re-designation of eligibility within special education (TPI, 2016). These statistics have caused the field to examine current instructional approaches for students with ASD, professional development, and support.

As the field of ASD continues to grow, research studies continue to indicate that a significant number of students with ASD struggle academically, social emotional relationships, communicating, and exhibiting challenging behaviors (Brock, et al., 2014; Carter, et al., 2013, Sanford, Levine, & Blackorby, 2008). Approximately 40% of our students who have benefited from special education services do not receive any mental health counseling, speech therapy, life skills training, or health services related to their disability once they reach the age of 18 (TPI, 2015). Additionally, research studies suggest that many students with ASD are leaving school without the skills they need for adulthood (Shattuck et al., 2012; TPI, 2016; Wagner, Newman, Cameto, Garza, & Levine, 2005). Skills such as attending college, living independently, and maintaining a job are all areas that

in general education classes, the need for interdisciplinary collaboration is increasingly recognized. Co-teaching has gained recent attention as an evidence-based practice that increases student engagement and access to the curriculum. In co-teaching models, general and special education teachers collaboratively plan, teach, and assess all students (Klinger, Argyelles, Hughes, & Vaughn, 2001; Mastropieri & Scruggs, 2001; Simpson, et al., 2003).

Co-teaching allows for special education teachers to lend their expertise on strategies, supports, and curricular accommodations, while general education teachers provide content expertise. The combination of the two areas of expertise provides students with ASD academic, social, and behavior supports needed.

A second example of interdisciplinary collaboration is between support providers (e.g., speech and language pathologists, mental health providers, behavior therapists). Collaboration across disciplines allows for students to make effective progress towards their individual goals and objectives across settings. For example, students with ASD often have goals in the area of social skills (listening, turn taking, executive functioning, etc.).

Ocampo (2011), found a significant relationship between utilizing joint sessions in speech and language and mental health and goal obtainments, specifically regarding social skills.

The study indicated that effective growth is made when students are able to transfer the skills they are taught in therapy to a variety of settings. Interdisciplinary collaboration provides support for students from different professional

students with ASD struggle with post high school (Brock et al., 2016). These identified skill areas have also created an urgency within the field of education to address ways to support individuals with ASD post high school. In addition, our instructional approaches in our secondary schools need to shift.

The Common Core State Standards introduced rigor, depth, and complexity to our curriculum to prepare our students to be college and career ready; however, one area overlooked by the standards are ways in which we prepare our students with disabilities to be college and career ready via alternative approaches. States continue to face the challenge of creating accessible pathways for our students with disabilities to meet the standards of proficiency. For example, a collaborative approach to building transition services before exiting high school, building community partnerships, and business partnerships are all areas that continue to need examination. It is imperative for our pre-service teacher education programs to help facilitate a mechanism for continued services across systems for students with disabilities.

In addition, California required all pre-service teacher preparation programs to revise their current programs to address the ASD mandates and regulations. To date, all special education teachers credentialed in the state of California (e.g., mild to moderate or moderate to severe) are authorized to teach any student with ASD. While the field has required all special education teachers to be authorized, a significant number of students with ASD in California are being educated in the general education classrooms and being instructed by teachers who do not have any formal training in ASD. Unfortunately, despite the recent trend, there are few models in the field that facilitate successful placement of students with ASD in general education classrooms. Teachers, service providers, parents,

perspectives to help master, sustain, and transfer the skills across settings.

A second trend in teacher training is the use of progress monitoring to facilitate student access towards academic and behavioral targets. Traditionally, progress monitoring is used in the field to collect behavioral data; however, recently this strategy has been adapted to incorporate learning objectives and task analysis. Progress monitoring is an important tool to know what is working and what needs refinement. A sample format for progress monitoring for academics and behavior support is provided in figure 1. The progress monitoring form can also be utilized to monitor student goals and objectives as identified by their Individualized Education Program (IEP). For students with significant disabilities, the progress monitoring tool can be utilized to measure attempts or partial goal attainment. As educators, we must explicitly post lesson goals and objectives and/or learning targets to guide student learning and also to remind the instructors (e.g., teachers, paraeducators, speech and language pathologists) of the overarching curriculum goals for the day. A posted learning target and/or lesson objective serves as a reminder of which content standards are being targeted and what mastery will look like for the intended outcomes of the lesson (Moss, Brookhart, & Long, 2011). The form shown in Figure 2 below can help teachers write clear learning objectives that can be posted for students and teachers, administrators or paraeducators (Moss et al., 2011). In addition, students with ASD benefit from having visual supports and posting learning objectives to delineate clear expectations. Collecting and posting consistent progress monitoring data

and others are faced with the daunting task of designing instructional programs for students with ASD without clear guidelines and protocols (Simpson, et al., 2003). Three current educational approaches for teaching students with ASD are examined below: (1) interdisciplinary collaboration, (2) progress monitoring, and (3) academic social interaction skills training.

Because general education teachers often view themselves as ill equipped to meet the needs of students with disabilities, and specifically students with ASD, their perception of inclusion is inadvertently effected (Nishimura, 2014). Research has correlated positive teacher attitudes as a determining factor in the success for students with ASD in general education classroom (Nishimura, 2014; Simpson et al., 2003). Teachers are more willing to include students with ASD in their classroom if appropriate supports and training are provided.

Social skills training is not a new trend in educational approaches; however, academic social interaction skills are a fairly new area introduced by the Common Core

using the form shown in figure 2 also ensures a seamless procedure to measure progress towards learning standards and individualized goals and objectives.

The standards emphasize the necessity for our students to be career and college ready, to possess the skills to engage with complex texts, and to utilize evidence in writing and research. In addition, the Standards call for academic listening and speaking skills in order to work collaboratively and present ideas, and develop academic language to demonstrate the ability to perform the above skills (Bunch, Kibler, & Pimentel, 2014). These academic skills draw from the assumption that students innately possess the skills and do not require explicit instruction to master them. For students with ASD, however, these academic skills require social interaction skills that need to be explicitly taught, creating barriers to the Standards. Several studies have documented differences in the neuropsychological functioning among individuals with Autism compared to neuro-typical peers, particularly during comprehension and processing tasks (e.g., Just, Cherkassky, Kellar, & Minshew, 2004, Minshew et al, 1997), with communication between key areas of the brain being an important difference (Mostofsky et al, 2009). Hence, students with ASD require explicit instruction and strategies to access specific areas of content requiring comprehension and processing of academic language as a whole in the Common Core.

The prevalence of ASD has dramatically increased over the past ten years. To address the need of the field, pre-service teacher training programs have also had to shift in their

		<p>approaches to teaching students with ASD. First, collaborative partnerships between general education and special education teachers have shifted to become a way of practice. Second, progress monitoring of instructional practices has allowed teachers and support staff to measure mastery of learning objectives. Third, in addressing the need to prepare K-12 students to become 21st century learners, recognizing that the needs of students with ASD is crucial. Targeting social interaction skills for students with ASD is imperative in providing access and mastery of the standards. Tools such as the OASIS can help facilitate collaborative learning spaces for teachers and support personnel to support all students (Sugita & Ocampo, 2016). Future research in standardizing the OASIS tool is needed. Finally, additional training and support is needed, focusing on transition services and ways to align resources across universities, local schools, and community agencies. As the prevalence rate of ASD continues to increase, it is imperative that our training and instructional practices address the growing needs of the field.</p>
Article	<p>Evidence of Tension</p> <p>Increased rates of ASD/diverse needs</p> <p>Challenges of Educating Students with ASD</p> <p>Importance of Training Early</p> <p>Lack of Teacher Knowledge/Training</p> <p>Shift in System/History</p>	<p>Solutions/Evidence to Support Solutions</p> <p>Explanation of PD/education/training etc.</p> <p>Goals of PD/education/training etc</p> <p>Evidence to Support Additional PD</p> <p>Implications for Training/Practice</p>

	<p>Issued Caused by Tension</p> <p>Needed Changes</p> <p>Importance of Change</p>	
<p>Sanz-Cervera, P., Fernández-Andrés, M.-I., Pastor-Cerezuela, G., & Tárraga-Mínguez, R. (2017). Pre-Service Teachers' Knowledge, Misconceptions and Gaps about Autism Spectrum Disorder. <i>Teacher Education and Special Education</i>, 40(3), 212–224.</p>	<p>Despite this theoretical framework, many studies with in-service teachers, such as Al-Sharbaty et al. (2015), reveal poor knowledge and outdated beliefs about ASD. Other studies, however, have found a low to intermediate level of knowledge (Haimour & Obaidat, 2013; Hendricks, 2011), whereas others have revealed adequate general knowledge, but confusion about the origin of the disorder (Mavropoulou & Padeliadu, 2000).</p> <p>The authors of this study found that early childhood pre-service teachers lacked knowledge and held basic misconceptions about the etiology and observable behaviors of children with ASD. Regarding its etiology, they found that 93% of the early childhood pre-service teachers did not know that ASD was a developmental disorder, 60% incorrectly perceived that children could “outgrow” the condition, only 53.3% acknowledged the contribution of genetics to the disorder, and 20% incorrectly noted the role of trauma as a cause of ASD. As for observable behaviors of children with ASD, they found that 73.3% of the early childhood pre-service teachers thought that behavior therapy was not an</p>	<p>Research shows that early identification and the resulting early intervention are directly linked to improving educational outcomes and reducing the severity of the ASD diagnosis over the long term (Hart & More, 2013). 2013). In this direction, the quality of early childhood and primary education pre-service teachers' preparation is crucial, as a positive relationship has been shown between the quality of teacher education programs and student success (Brownell, Ross, Colón, & McCallum, 2005). In children with ASD specifically, Robertson, Chamberlain, and Kasari (2003) found that when teachers perceived their relationships with students with autism to be more positive, children's levels of behavioral problems were lower, and they were more socially integrated into the class. In addition, some studies found that teachers' training and experience predict their confidence and the number of strategies used to address challenging behavior (McGregor & Campbell, 2001; Segall & Campbell, 2012; Westling, 2010).</p> <p>According to in-service teachers, the level of training in ASD is significantly low, even</p>

effective intervention, 66.7% claimed that children with ASD were very similar to each other, 46.7% did not recognize the role of early intervention in assisting children with ASD, and 26.7% incorrectly assumed that behavioral interventions for children with ASD were similar. In this study, the number of misconceptions outweighed the number of correct assertions, showing that early childhood pre-service training in autism is insufficient.

among special education teachers (McGregor & Campbell, 2001), which leads to a lack of confidence in their abilities to provide services to children diagnosed with autism (Schwartz & Drager, 2008). In this regard, Haimour and Obaidat (2013) found that the educational level (bachelor, high school diploma, or master), teaching experience, and contact with students with ASD positively and significantly influenced the teachers' knowledge about autism.

It should be pointed out that the first-year students had not received any prior training in ASD, whereas all the fourth-year students had received a class on Special Educational Needs, where ASD was studied in one of the topics. This subject is studied during the second year at university. It must, however, be taken into account that ASD is only superficially studied in two or three sessions, as this course includes the study of various special

The MANOVA performed with the scores obtained by the fourth-year pre-service teachers (N = 431) revealed statistically significant differences between the specialists (special education and speech-language pre-service teachers) and the rest of the early childhood and primary education pre-service teachers answers than primary education pre-service teachers. Special education pre-service teachers had significantly fewer misconceptions

		<p>than early childhood pre-service teachers, and, surprisingly, special education pre-service teachers also obtained significantly fewer misconceptions than speech-language pre-service teachers. Finally, specialists showed significantly fewer gaps than early childhood pre-service teachers, and early childhood pre-service teachers also had significantly fewer gaps than primary education pre-service teachers.</p> <p>specific training in autism beyond university training has a significant influence on the number of correct answers and gaps ($p = .000$ in both cases), but it has no influence on the number of misconceptions ($p = .651$). In fact, both groups, those who have been trained and those who have not received any training, obtained a similar number of errors.</p>
Article	<p>Evidence of Tension</p> <p>Increased rates of ASD/diverse needs</p> <p>Challenges of Educating Students with ASD/Needs of Students with ASD</p> <p>Importance of Training Early</p> <p>Lack of Teacher Knowledge/Training</p>	<p>Solutions/Evidence to Support Solutions</p> <p>Explanation of PD/education/training etc.</p> <p>Goals of PD/education/training etc</p> <p>Evidence to Support Additional PD</p> <p>Implications for Training/Practice</p>

	<p>Shift in System/History</p> <p>Issued Caused by Tension</p> <p>Needed Changes</p> <p>Importance of Change</p>	
<p>Able, H., Sreckovic, M. A., Schultz, T. R., Garwood, J. D., & Sherman, J. (2015). Views from the Trenches: Teacher and Student Supports Needed for Full Inclusion of Students with ASD. <i>Teacher Education and Special Education</i>, 38(1), 44–57.</p>	<p>The current prevalence rates for autism spectrum disorder (ASD) coupled with the mandate to provide services to students with disabilities in inclusive classrooms warrants the need to examine the dynamics of inclusion for students with ASD.</p> <p>The prevalence rate of autism spectrum disorder (ASD) is currently estimated to be 1 in 68 (Centers for Disease Control and Prevention [CDC], 2014), which is an increase from 1 in 88 just 2 years earlier (CDC, 2012). Meanwhile, the Individuals With Disabilities Education Improvement Act (2004) mandates students with disabilities are to be taught to the greatest extent possible with their typically developing peers (34 Code of Federal Regulations § 300.550(b)). Therefore, the number of students with ASD taught in inclusive classrooms is increasing.</p> <p>the inclusive classroom can present multiple challenges for students with ASD and their teachers. Due to deficits in social communication and interaction, navigating peer relationships and other classroom social situations can be very difficult for students with ASD (National Research Council, 2001). Even when students with ASD have average to above average cognitive skills, they struggle with school success because of challenges in social cognition (Stichter et al., 2010).</p> <p>The salient characteristics of ASD, which include deficits in social</p>	<p>Research has found teachers who were exposed to more professional development opportunities related to co-teaching experienced significant increases in their confidence and interest in co-teaching, and they were hopeful for the potential of collaborative relationships (Pancsofar & Petroff, 2013).</p> <p>The need for special education support and consultation was evident for making inclusion successful for all.</p> <p>Thus, the need for building a school community of acceptance and tolerance was emphasized.</p> <p>Knowing more about ASD and students' individual needs. General education teachers strongly expressed their need to know more about ASD and how to accommodate for students with ASD in the classroom. As a high school teacher aptly stated, "I don't have any kind of special education background, so some training on how to work with these students is really needed." Teachers discussed how they were baffled by the range of ASD characteristics and were unclear about how to address individual students' personalities and needs.</p> <p>Relatedly, teachers lamented their teacher preparation programs for not emphasizing practical strategies for individualization in the classroom. As one teacher stated, "We</p>

skills and communication with restricted interests and/or repetitive behaviors (American Psychiatric Association [APA], 2013), are particularly misaligned with social success in school settings. For example, in elementary school, students are often expected to participate in group work and unstructured, child-directed play activities. Macintosh and Dissanayake (2006), however, found that elementary-aged students with ASD were likely to struggle with cooperation, assertion, and self-control, as well as hyperactivity and/or internalizing behavior.

Similarly, at the secondary level, students engage in group work and participate in a variety of social networks in and out of the school setting. Teachers have reported students with ASD at the secondary level are less likely than their peers to respond aloud to questions, make in-class presentations, or work collaboratively with their peers (Newman, 2007).

In addition, the secondary school setting presents many other challenges, such as multiple teachers, changing schedules, and unstructured times such as lunch and the time before and after school. Even more than elementary school, middle and high school settings can be difficult for students with ASD who struggle with transitions and lack of structure.

Despite federal mandates requiring students with ASD to be educated alongside their general education peers whenever possible, research suggests physical integration does not necessarily equate to full social inclusion. In fact, research indicates that the attitudes and knowledge of typically developing peers greatly influence the quality and frequency of interactions students with ASD have with their peers (E. W. Carter, Hughes, Copeland, & Breen, 2001).

spent too much time reading about students with disabilities, but not on how to structure the classroom to be individually responsive to students' needs." A greater emphasis on practical strategies to include students with ASD in the classroom was noted as a strong need in teacher preparation and ongoing professional development.

Furthermore, teachers noted that their teacher preparation would have been more effective if they were given opportunities to interact with students with disabilities in school settings, rather than just reading about inclusion.

Teachers highlighted the importance of understanding their students' individual learning needs at the beginning of the school year. Recommended strategies included making Individualized Education Programs (IEP) more accessible and useful. Teachers specifically noted that IEPs were too long to sift through to understand a student's individual characteristics and needs. Teachers recommended brief information outlining each student's characteristics and needs with corresponding classroom accommodations needed. A high school teacher emphasized this point by stating, "If I had had a list of helpful hints it would have been tremendously useful instead of my three to four week learning curve in trying to figure this student out."

Other recommendations included systematic information sharing from previous teachers of students with ASD so teachers could learn what was helpful in the past instead of "having to reinvent the wheel."

The social practices of peers can either integrate or isolate students with ASD. Research suggests diagnosis disclosure may affect students' attitudes regarding their peers with ASD. For example, in elementary classrooms, students who fully disclose their diagnosis to their peer group have been found to receive more social support from peers (Ochs, Kremer-Sadlik, Solomon, & Sirota, 2001). Similarly, at the middle school level, research indicates providing descriptive and explanatory information about students with ASD to students without disabilities results in more positive attitudes toward students with ASD, compared with providing no information or giving descriptive or explanatory information alone (Campbell, 2007).

Unfortunately, research suggests students with ASD in inclusive classrooms have fewer friendships than their typically developing peers. For example, in a study of elementary-aged students with and without ASD, students with ASD were nominated fewer times as a friend by peers, had fewer reciprocal friendships, and reported poorer friendship quality (Kasari, Locke, Gulsrud, & Rotheram-Fuller, 2011). As students enter middle and high school, friendships become more selective and navigating peer relationships often becomes more complex. For students with ASD, who often already have difficulty with social relationships, developing friendships during the middle and high school years can be even more challenging.

Not only do some of these students struggle to develop friendships, but students with ASD across elementary, middle, and high school levels have been reported to experience alarmingly high rates of bullying victimization (Sreckovic, Brunsting, & Able, 2014). To help

Furthermore, elementary teachers stressed

the need for collaboration between professionals to include general and special education teachers, school counselors, and school psychologists as well as parents. Thus, sharing goals and strategies that work for individual students with ASD in a collaborative manner was viewed as essential. As one teacher emphasized, "Suggestions from a skilled special education professional who understands autism is so important while he or she is working in the classroom with the target student." The traditional special education "pull-out" model of services was viewed as least helpful for both the student with ASD and his or her classroom teacher.

Teachers repeatedly emphasized knowing how and when to intervene was an important skill for them to learn. Moreover, teachers discussed their needs in knowing the best strategies for placing students with ASD in cooperative learning groups. Teachers at the high school level stressed how they learned through experience the importance of purposeful grouping of students with ASD. They recommended that students with ASD be in honors or advanced placement classes where they are with peers who are more serious about school.

A high school English teacher emphasized, "I have learned through trial and error that placing students with ASD in cooperative learning groups with peers who excel academically is

students with ASD establish positive peer relationships explicit instruction, targeted interventions and authentic opportunities to foster friendships are needed (E. W. Carter et al., 2014). Unfortunately, many general education teachers do not feel prepared to meet the multifaceted needs of students with ASD in inclusive classrooms.

Although parents, administrators, educators, and support personnel all agree that interventions addressing the social skill deficits of students with ASD are needed if students are expected to attain increased independence and success (Brown, Odom, & Conroy, 2001; U.S. Department of Education, 2003), research suggests general education teachers do not feel prepared to implement such interventions. In fact, some general education teachers do not support an inclusive model of teaching citing their own lack of training preparation for teaching in inclusive settings (Ross-Hill, 2009).

Even after taking a course in inclusionary practices, the pre-service teachers stated that although the course was helpful, they still required more support in instructional strategies and understanding characteristics of students with different types of disabilities. Not surprisingly, once teachers are in the field, they voice similar concerns. General education teachers have specifically noted concerns about their lack of knowledge and training related to ASD (Finke, McNaughton, & Drager, 2009) and some even hold misconceptions related to ASD (Segall & Campbell, 2012). Self-efficacy related to teaching students with ASD will likely increase with specific training in intervention methods (Siu & Ho, 2010).

In addition to continued concerns about their lack of preparation, some teachers have noted they do not receive adequate support

best because those peers are more willing to make allowances for the students with ASD characteristics." Other teachers noted the need to sometimes give students with ASD independent assignments within a group so that the student could contribute to the group, but not have to work directly with group members at all times. Again, the support and advice from the special educator were seen as essential for assisting general educators in facilitating group work in their classrooms.

Other helpful academic accommodations included the need for structure in the students' schedule. High school teachers emphasized the need for careful scheduling for the student's school day.

structure and routine provided "the order students with ASD need so they won't get distracted and anxious." Teachers noted that structuring students' schedules required advocacy and support from the special educator as well as the school administrator.

Again, special education teachers were noted as a strong source of information and support in achieving the above.

At the elementary level, teachers suggested the use of peer buddies was the best strategy to ensure all students were included and engaged. Elementary teachers, however, also

within their schools (Ross-Hill, 2009). Specifically, teachers have reported a desire for collaboration to support inclusion (Finke et al., 2009). Although school personnel believe collaboration between general and special education teachers is beneficial, teachers lament the lack of planning time, the incompatibility of teachers, lack of training, varying student skill levels, and lack of administrative support (Scruggs, Mastropieri, & McDuffie, 2007). Even when teachers feel collaborative practices are present in schools, the use of such practices is not always implemented.

Collaboration can become especially difficult or nonexistent when teachers diverge in their philosophies of teaching students with disabilities (N. Carter, Prater, Jackson, & Marchant, 2009). It is therefore necessary to teach pre-service teachers how to engage in discussions of philosophical differences with their future teaching colleagues so they can work together more effectively (N. Carter et al., 2009). Research has found teachers who were exposed to more professional development opportunities related to co-teaching experienced significant increases in their confidence and interest in co-teaching, and they were hopeful for the potential of collaborative relationships (Pancsofar & Petroff, 2013).

Teachers addressed the diversity of ASD characteristics by stating, "Every student with autism is different—the student I had several years ago is very different from my student this year." The characteristics described ranged from social isolation to aberrant behaviors interfering with full inclusion. Teachers mentioned social support needs in the following areas: (a) social relationships, (b) social academics, (c) self-advocacy, (d) transitioning, and (e) peer-related needs.

If engaged in play, students with ASD were described as

emphasized that if given adequate time and resources, such as consultation from special education teachers, they could assist the student with ASD in navigating the school social culture. Contrarily, middle and high school teachers indicated that "peer buddies are more effective than a special education teacher who is trying to teach the student with ASD social skills while he or she is walking to class." Another teacher noted, "The peer is able to break the social barrier much faster than we are in the teacher's role in middle and high school." Special educators noted the importance of peer support models, but also discussed their lack of time and skill in facilitating such models.

Advocacy supports. Another useful strategy described by teachers was parental and teacher advocacy for the student with ASD. The strong need for advocacy was highlighted by the following comment: "When these kids get to middle and high school, they are on their own unless they or their parents can advocate for them." Teachers at all levels felt that parents coming to school and explaining their child's specific needs and characteristics related to ASD was a more appropriate approach at the elementary grade levels than in middle and high school. Teachers recognized that "parents know their child more than anybody else and when parents can provide helpful tips about what makes their child tick or not, that is so

engaging in a fantasy world. One elementary teacher described a student who was fascinated with war as always displaying inappropriate fighting behaviors. Similarly, students at the middle and high school levels were described as being disinterested in peers because they operated in a fantasy world or seemed to prefer the company of adults for social interactions.

Because students with ASD often display a rule-bound nature, teachers stressed how their students had no tolerance for peers who did not take school work as seriously as they did.

Teachers described how group work can be challenging for the students with ASD as well as their peers and teachers. Secondary teachers recalled incidents when students with ASD called their peers' names such as idiot, moron, and stupid when the peers did not understand academic information as quickly as the student with ASD. Due to these social-academic concerns, teachers also stressed the need for understanding and advocacy of students with ASD for them to be fully included in the school environment.

With a focus on students with ASD increasing their social competence, teachers expressed concerns about the future of students with ASD who seemed to lack self-advocacy skills. As a middle school teacher described, "He needs to be able to say 'these are my strengths and this is what I need help with.'" Teachers commented that without self-advocacy skills, these students were often misunderstood and fall behind in school because it takes teachers and peers a long time to figure out those important features of students' ASD.

Teachers noted how peers need to be informed about ASD to be

helpful." Teachers at all levels noted the most useful strategy was when parents provided a short book or information sheet describing their children's characteristics and needs.

By knowing more about individual students and the various manifestations of ASD, general and special education teachers would be better equipped to fully include the student in the school and classroom culture. Helpful strategies ranged from social to academic supports, as well as advocacy efforts on behalf of the student. Such strategies can inform our teacher preparation curricula to create a collaborative network of general and special educators who can facilitate the successful inclusion of students with ASD.

Several areas of need were expressed including interventions aimed at teaching students with ASD social skills and self-advocacy skills, as well as interventions to foster friendship development and reduce bullying victimization.

General education teachers highlighted the need for more knowledge about ASD and individualization strategies for students with ASD in inclusive settings. In particular, they noted their needs to make appropriate social accommodations for students with ASD in their classrooms. They also stressed their

more understanding and accepting of students with ASD. Issues regarding peers included peers not wanting to be with the student with ASD all the time to peers experiencing ostracism by fellow classmates if they were nice to the student with ASD. Clearly, teachers were overwhelmed with the conflicting demands of meeting the needs of students with ASD in their classrooms, in addition to meeting the academic and social needs of their “typical” students. The need for special education support and consultation was evident for making inclusion successful for all.

They further explained that there were peers who joined support groups or buddy programs for the student with ASD as a resume builder only. Not all interactions were negative or agenda-driven, as teachers described some students who actively sought out students with ASD and tried to befriend them.

Unfortunately, both general and special education teachers noted their lack of resources and skills in meeting the unique needs of students with and without ASD in inclusive classrooms.

Teachers felt conflicted about when and how to emphasize students’ social and academic needs within the inclusive classroom setting. A middle school teacher emphasized that teachers needed to know where to place their priorities in the classroom—in the social or academic areas—realizing that both interfere with the student’s success. If a student with ASD is working diligently but

desires to promote peer acceptance and inclusion of students with ASD. Finally, all focus group participants (general and special educators) emphasized the need for collaboration to make inclusion successful.

General education teachers highlighted the need for more knowledge about ASD and individualization strategies for students with ASD in inclusive settings. In particular, they noted their needs to make appropriate social accommodations for students with ASD in their classrooms. They also stressed their desires to promote peer acceptance and inclusion of students with ASD. Finally, all focus group participants (general and special educators) emphasized the need for collaboration to make inclusion successful.

Without this basic knowledge, general educators are often overwhelmed and frustrated with meeting the diverse learning needs of students in their classrooms. Furthermore, teachers in this study highlighted the need for applied experiences in their professional preparation.

Guided field experiences in classrooms with general and special educators working collaboratively in meeting students with ASD learning and social needs would be most meaningful for the pre-service professional. Research has demonstrated that guided field experiences in inclusive classes improve teacher efficacy in

has his feet on another desk and is making weird sounds, the important thing to me is that he is working. But I often wonder should that be the real focus or should the focus be on where his feet are and the weird sounds he is making?

Clearly, teachers saw the need for students with ASD to be a part of the classroom social culture, but were puzzled about strategies to facilitate the student's full social inclusion. The issue was further explained by their lack of understanding of students' characteristics and needs. As a middle school teacher stated, "I find it hard to tease out whether they really prefer to be alone or if that's a choice they make because they know they are going to be made fun of."

Moreover, teachers expressed their strong desires to help their other students understand their peers with ASD so the students with ASD "are not dehumanized." Thus, the issue of disclosure of the student's autism diagnosis was a major concern. Teachers wanted to know how, when, and to whom they should disclose the information about the student's ASD. They were particularly concerned about privacy and confidentiality issues related to the student and his or her family. Again, special education teachers were noted as a strong source of information and support in achieving the above.

working with students with disabilities (Jung, 2007).

Furthermore, specific differentiation strategies to accommodate students with ASD learning needs are essential for general and special educators to implement as a collaborative team. Teachers in this study noted similar concerns as general education teachers in previous studies in relation to their lack of knowledge and training related to ASD (Finke et al., 2009; Segall & Campbell, 2012). Teachers need skills in designing and implementing classroom-based instruction based on the learning needs and interests of individual students with ASD. The IEP can be a useful document when it is condensed and focused on specific classroom modifications needed for individual students.

Furthermore, general and special educators who are exposed to coursework with applied experiences in accommodating for individual students' learning needs are needed (Kozleski, Pugach, & Yinger, 2002). Research suggests that self-efficacy related to teaching students with ASD will likely increase when training is focused on specific intervention methods (Siu & Ho, 2010).

With regard to meeting the individual needs of students with ASD, several evidence-based practices to address the social-related challenges of students with ASD

		<p>have been identified (Wong et al., 2014). Additionally, the National Professional Development Center on ASD's website (http://autism.pdc.fpg.unc.edu) includes a number of free resources for professional development to encourage successful implementation of evidence-based practices, including coaching resources, video modules, and implementation Checklists.</p> <p>Teachers also expressed the need for peer tolerance and acceptance. This is essential, as research has shown that peers' attitudes and knowledge are influential in the quality and frequency of interactions students with ASD have with their peers (E. W. Carter et al., 2001). Several disability awareness programs exist and research suggests they have improved students' knowledge about disabilities and their attitudes toward peers with disabilities (Lindsay & Edwards, 2013). Both general and special educators need to learn these strategies so inclusion can be promoted and be successful for all students.</p> <p>Finally, teachers noted the importance of advocacy for students with ASD including parental and self-advocacy. Research has shown that self-advocacy skills were predictive of IEP involvement for students with ASD (Barnard-Brak & Fearon, 2012). A</p>
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		<p>stronger focus is needed in special education professional development promoting advocacy for parents and students with ASD as well as other disabilities. Student involvement in IEP development could help teachers answer questions such as the ones shared in this study related to wondering whether students desired to be alone or chose to be alone because they were not sure how to be part of the group. These are important life skills for the students with ASD as well as their parents. The educators' role should be to empower parents and students to be advocates for themselves.</p> <p>professional development programs should be founded on collaboration across disciplines in education. Research has indicated that interdisciplinary approaches in professional development are likely to yield more collaborative skills of professionals who have experienced interdisciplinary collaboration in their professional development (Crais et al., 2004; Pancsofar & Petroff, 2013). Interdisciplinary collaboration can be achieved through both courses and field work.</p> <p>For true collaboration to be achieved in inclusive classrooms, interdisciplinary preparation requires "targeted efforts" to facilitate cooperation across faculty and programs integrating general and special education teacher preparation</p>
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