**Facilitating Local Understanding and
Literacy Development
for Students with Autism Spectrum Disorder
Through Teacher Training**

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Abstract

Developing literacy skills can liberate students with Autism Spectrum Disorder (ASD) to engage with the world, connect with others, and communicate their experiences and their insights. It also allows individuals with ASD, regardless of the severity of their disability, to be included in literacy learning opportunities with their peers. With the increase in the number of students identified on the autism spectrum, it has become essential to understand the nature of schooling experiences that provide these students access, the fullest access possible, to learning activities and experiences that develop their literacy. Using workshop observations of teacher candidates along with analyses of documents and reflections produced by the teacher candidates over the course of three semesters, this qualitative study examined how teacher candidate perspectives and sense of preparedness was impacted when they were provided instruction and opportunities to explore ASD and literacy using a more inclusive framework for literacy with a focus on developing local understanding. The analysis concluded that post instruction teacher candidates had a broader, more inclusive understanding of the potential of students with ASD in developing literacy skills.

Keywords: autism spectrum disorder, literacy instruction, inclusion, inclusive literacy, teacher candidates

"I was pointed poignantly to learn each polished truth. Top treasured understandings of wisdom freed thunders of "I AM A THINKER." From lumps of knowledge I'm dearly powered to estimate new ideas. For decades I had prayed for this access to unlimited learning. My never before answered insatiable thirst for knowledge was there finally quenched. I ask that we feed all people"

(Peyton Goddard, class presentation, 2014).

With the increase in the number of students identified on the autism spectrum, we must understand the nature of schooling experiences that provide these students access, the fullest access possible, to learning activities that develop their literacy (Chandler-Olcott & Kluth, 2009; Copeland & Keefe, 2007; Kluth & Chandler-Olcott, 2008). Students with ASD are underserved in relation to opportunities to develop literacy (Kluth & Chandler-Olcott, 2008; Lanter & Watson, 2008) and teachers report feeling unprepared to teach literacy skills to this population (Ainsworth, Evmenova, Behrmann, & Jerome, 2016; Gurry & Larkin, 2005). In a study by Kliewer and Biklen (2001), the authors concluded that individuals with disabilities, including autism, were able to "demonstrate a symbolic and literate presence when they were supported by those who believed in their capacities and with whom they share an intimate relationship" (p. 11). The authors further concluded that these caring relationships were built on what they identified as "local understanding," defined as "a radically deep, intimate knowledge of another human being" (p. 4). Local understanding is knowledge of student behaviors and characteristics with the understanding that many of these are purposeful. Kliewer and Biklen (2007) state that local understanding occurs as educators engage in "imaginatively crafting responsive contexts built on the full presumption that all children can be understood as competent and can grow in sophistication as literate citizens" (p. 2597). The purpose of this study was to provide teacher candidates instruction and support in developing a "local understanding" of the individuals with ASD along with an expanded view of literacy and explore how teacher perspectives and feelings of preparedness were impacted by this instruction.

Literacy development for children and youth with Autism Spectrum Disorder (ASD) is a liberating process, one which opens up possibilities to engage with their world, connect with others and communicate their experiences and insights. It also allows students to become active learners within inclusive environments where all students are seen as competent learners learning together (Copeland & Keefe, 2007; Downing, 2005). Self-advocate and author Peyton Goddard described the empowerment of literacy for her as an individual with ASD this way, "Now you greet me as a writer who is stretching your imaginings to pity me not, but to cope with kissing the news, 'I'm real, ain't that a sweet saw surprise! And I am possessed of voice as you are too" (Kluth & Goddard, 2010 p. 6). ASD generates a unique set of challenges to engagement, connection and communication that can result in a sense of being isolated, silenced and misunderstood (Donnellan & Leary, 2012). Through the development of literacy - reading, writing, listening and speaking- children and youth with ASD gain the means to navigate these challenges in ways that help them connect, interact and participate within inclusive environments (Kluth & Chandler-Olcott, 2008).

In schools, students with ASD experience a wide variety of barriers to their literacy development (Kluth & Chandler-Olcott, 2008). The first and perhaps greatest barrier relates to

commonly held beliefs about students with ASD. Teachers, caregivers and students themselves may have bought into prevailing attitudes about the inability of students with ASD to learn and engage in meaningful, academic literacy activity (Kliewer, Biklen, & Kasa-Hendrickson, 2006). Instead, they prioritize teaching and learning functional life skills. This framework shifts the focus of teacher-student interactions away from appropriately challenging and meaningful literacy activity and its associated benefits. "Too often…an emphasis on functional literacy causes teachers to reject classroom practices that would not only serve to connect students to peers but also help them to learn new competencies, especially those associated with communication and social interaction, in context" (Kluth & Chandler-Olcott, 2008, p. 41).

Teachers not only need to believe that students with ASD can benefit from literacy instruction but they also need broader and more inclusive understandings of how students with ASD engage, develop, demonstrate and express literacy (Copeland & Keefe 2007; Downing, 2005). For example, Temple Grandin describes her unique way of engaging with language visually as a person with ASD.

> I think in pictures. Words are like a second language to me. I translate both spoken and written words into full-color movies, complete with sounds, which run like a VCR tape in my head. When somebody speaks to me, his words are instantly translated into pictures.
> (Grandin, 2006, p.19)

Notions of literacy for students with ASD are limited not only by pragmatic concerns but also by narrow definitions of what counts as literacy in the classroom. Students with ASD may engage with and express their literacy in atypical ways and they may have proficiencies that are not always recognized or even accepted as literacy. Kluth and Chandler-Olcott (2008) argue that "Narrow conceptualizations of [literacy] … position those who struggle with conventional literacy tasks, despite any skill that they may show with media texts or oral language, as illiterate, at risk, incompetent or even lacking in intellect" (p. 34). Without a broader definition of literacy that includes the multiple kinds of literacies that exist, teachers will find it difficult to recognize and tap the strengths of their students with ASD to develop their literacy.

The second barrier to literacy development for students with ASD relates to how people understand the characteristics of ASD (Rubin et al., 2001; Kasa-Hendrickson & Kluth, 2005). The characteristics of ASD that a student presents affect her access to inclusive environments and engagement with activities that facilitate her literacy development. The reality of the autism spectrum is that there is no one set of common characteristics that every student with ASD presents. Instead, there is a plethora of possibilities (Donnellan & Leary, 2012). Unfortunately, rather than deal with the diversity of possible characteristics that a child on the spectrum may present, descriptions of student characteristics are frequently reduced by the stereotypes about ASD to a handful of descriptors that have become the limited way our society thinks about and understands students with ASD. Teachers do not build a "local understanding" (Kliewer & Biklen, 2007) of their students with ASD, a deep and rich understanding of each individual's characteristics. This may be a consequence of the fact that teachers lack the tools to develop local understanding by identifying and exploring the characteristics presented by their students. Without a local understanding, teachers lack the specifics needed to inform their thinking with regard to how these characteristics might impact the student during a given literacy learning activity (Kliewer & Biklen, 2007; Kluth & Chandler-Olcott, 2008).

The third major barrier to literacy development for students with ASD is related to the lack of familiarity with appropriate supports and how to help students use them (Gurry & Larkin, 2005; Kluth & Chandler-Olcott, 2008). Teachers, caregivers, and students themselves are frequently not familiar with the wide variety of supports that they can apply to facilitate literacy learning. When the salient supports are not employed, the challenges of ASD can impact literacy learning in ways that prevent literacy development and, thus, lock students with ASD out of the many benefits that literacy affords (Gurry & Larkin, 2005).

The power of literacy development can be unlocked and the barriers can be overcome. Teacher, both novice and experienced, can engage with students with ASD in ways that address these three main barriers. This study explores if teacher training, focused on building a local understanding of students and expanding their own definitions of literacy, impacts teacher perspectives and feelings of preparedness when providing literacy instruction to students with ASD. Teacher candidates were provided information and opportunities to work with their students with ASD in ways that honor their students' right to engage in meaningful and appropriately challenging literacy activity, value local understanding of their students' unique combination of characteristics and empower their students to use salient supports.

Methods

This study is a qualitative analysis of teacher candidate's perspectives of providing literacy opportunities to students with Autism Spectrum Disorder. The research question that guided this study was: What is the impact on teacher perspectives and sense of preparedness when teacher candidates were provided instruction and opportunities to explore ASD and literacy using a more inclusive framework for literacy with a focus on developing local understanding? Additionally, if there was a change in perspective, how did it impact their perceived ability to provide these students access to literacy opportunities?

Participants in the study included 63 teacher candidates who were seeking a special education credential. Participants participated in the study in three groups across three semesters with approximately 20-22 teacher candidates in each group. Each group received the same instruction on ASD, local understanding, and inclusive literacy opportunities. Each semester two workshop sessions were conducted where teacher candidates worked collaboratively on an ASD/Literacy case study assignment. During workshop activities, observations notes about discussions and interactions between teacher candidates were taken. Each semester these observation notes were coded for themes. At the final semester, these themes were compared across semesters.

Written reflections from teacher candidates were required as the final section in their ASD/Literacy case study. Teacher candidates were asked if their perspectives of providing literacy opportunities to students with ASD had changed or were impacted by instruction in personalized assessment strategies to understand ASD through a "local understanding" lens. If they indicated that it was impacted, candidates were asked to provide specific examples of how this new instruction impacted their perceived ability to provide these students access to literacy opportunities. Every teacher candidate completed this reflection. These reflections were also coded for themes. These themes were compared across semesters. At the final stage of analysis, we compared both themes from our workshop observation and themes from teacher candidate reflections. Limitations were that because this was a course assignments participants may have felt that they should responded positively about their experience. Students were given clear

instruction that their reflection would not impact their grade and we asked them to be as honest as possible.

As part of the invitation to participate, teacher candidates were asked to start developing their skillfulness with local understanding of their students with ASD by considering a more inclusive framework for thinking about their students and literacy learning: presuming the competence of students with ASD and valuing multiple literacies. Kliewer, Biklen and Peterson (2015), stated the power of presuming competence:

> Rather than blaming an individual's intellect for difficulties with performance, the presumption of competence directs attention to the educator who must find ways that allow for the demonstration of competence; in the absence of success, the presumption of competence impels the educator to keep search for new ways of engaging and connecting. (p. 24)

According to an inclusive framework for literacy learning, teachers, caregivers and students themselves assume that students with ASD can engage meaningfully in literacy activity and that they should have access to enriching and appropriately challenging activities that foster and facilitate their academic literacy learning. When teachers embrace this framework for literacy learning, they are able to see the strengths of their students. They can "…recognize that many behaviors that may have been previously dismissed should actually be seen as evidence of literacy" (Kluth & Chandler-Olcott, 2008, p. 36) precisely because they allow for multiple literacies with more inclusive understandings of how students with ASD engage, develop, demonstrate and express literacy.

Results

The analysis revealed that teacher candidates felt more prepared to teach literacy skills to individuals with ASD given the frameworks of local understanding and an expanded definition of literacy. Teacher-student interactions changed as teacher perspectives and attitudes became more oriented to the possibilities that student characteristics open up for ways to engage the student in literacy activity. For many teacher candidates, seeing the potential and strengths in their students with ASD is "an eye-opening experience". One of the teacher candidates summed up how this change in perspective has motivated her to actively looking for strengths that could be tapped for literacy instruction:

> By understanding the depths of my student's skills, her passions, strengths, talents, interests, learning characteristics, communication characteristics, social characteristics, sensory characteristics, movement characteristics, and behavioral characteristics, it allows me as an educator to look at my student as person and not as someone labeled with a disability. By not only looking at what my student struggles with, I am able to play on her strengths when developing my lesson plans and differentiate it in a way that benefits her education.
>
> (Teacher Candidate)

The power of this inclusive framework is that it enables teachers to move beyond seeing characteristics only as barriers and to instead also see the possibilities some of these characteristics afford the students for their engagement in literacy. Teacher candidates look through their data on student characteristics to find ones with potential for learning. One teacher candidate explained how she realized that characteristics in every category should be considered:

> I have gathered so much data on my student, hoping to find ways that will help her excel in all the literacies. Initially, I thought that only her characteristics in the "learning characteristics" category would define how she would best learn. But as I continued to explore, I realized that her communication, social and sensory characteristics also affected the way she could learn. For example, the color red is very pleasing to her every time she sees it. If I incorporate the color red into any activity we are doing, she gains an immediate interest.
>
> (Teacher Candidate)

As teachers start seeing these possibilities, it reinforces their belief in the value of expecting their students with ASD to engage in academic literacy learning opportunities (Collins, 2013; Kliwer, 2008; Kluth & Chandler-Olcott, 2008). In other words, teachers start choosing to presume competence and start looking for multiple ways to make literacy engagement possible for their students with ASD. For example, one teacher candidate helping a student with ASD to write complete sentences took advantage of strategies that accommodated her student's characteristics of ASD as the means to engage him. Given his desire for order and sequencing, she chose to have him use sections of sentence strips that he could order and sequence to create complete sentences. Since he loved seeing problems as puzzles that need to be completed, she told the student that sometimes writing can be like a puzzle. When words or phrases are left out, the sentence is not complete. She told him that his job was to find the missing pieces to complete the sentence. She commented as follows:

> My student likes to put puzzles together online and he is very focused on find the missing pieces to complete the picture. He likes the picture to be complete. This lesson design supports the student's strengths in wanting to practice order and sequencing, and making sure 'all the pieces of the sentence are there'.
>
> (Teacher Candidate)

One of the noteworthy things about this example is how this teacher candidate focused on the possibilities that his characteristics created for him to learn the important academic skill of writing complete sentences. The teacher candidate chose to presume competence in her student and she provided him an opportunity to engage in an activity that accommodated to his ways of thinking while still developing his literacy.

A large focus of the instruction to teacher candidates was to help teacher candidates successfully address the barriers children with ASD face. Instruction specifically focused on having teachers develop a local understanding of their student's characteristics (Kluth & Chandler-Olcott, 2008; Kliewer & Biklen, 2001, 2007). Developing a local understanding

requires interacting with the student, observing the student and eliciting the student's own perspectives about what is happening. Instruction focused on the need to listen carefully to individuals with autism and be willing to incorporate their perspectives into our learning. One teacher candidate affirmed how her own process of developing local understanding necessitated actual interactions with the student with ASD:

> Though my student's goals were clearly marked in her IEP, I was not able to experience or understand her present levels without working with her. This personal experience and observation with her has allowed me to understand the scope of her comprehension and what type of strategies would help her.
>
> (Teacher candidate)

The panoply of possible characteristics on the autism spectrum that can affect literacy learning requires that the students and their teachers and caregivers consider addressing literacy development through the lens of a deep and rich understanding of each individual's characteristics.

To identify and explore the characteristics of the students in their care, we orient teachers to an observation protocol for ASD characteristics and potential impacts on literacy which outlines six distinct categories of characteristics that students with ASD present: behavioral, communication, learning, movement, sensory, social. Participating teacher candidates find this useful for identifying and describing student characteristics.

> I found it really helpful that the ASD characteristics were broken down into different areas like social, learning, movement, sensory and behavioral. By observing, working with, and having many conversations with my student with ASD, I understood more about her different characteristics and what categories they fell under.
>
> (Teacher Candidate)

Teacher candidates use this observation protocol to note the behaviors of students associated with each category. They refrain from trying to interpret the meaning of the behaviors at this point and simply record the behaviors that they observe. In addition, they brainstorm potential impacts that the behaviors might have on the student's literacy. Figure 1 shows an example of one section of the observation protocol completed by a teacher candidate for a student with ASD during this project.

Teacher perception and sense of preparedness change as teachers' observational data of student characteristics increased their comprehension of the kinds of behaviors that the student with ASD must deal with in order to gain access to learning. Given that each and every student with ASD presents a unique combination of characteristics of ASD, teacher candidates learn that there is not any one specific means or method by which to provide students with ASD access to the benefits of literacy learning activity. Instead, they comprehend that teacher-student interactions must be informed by an in-depth understanding of a student's characteristics and their potential impacts on literacy learning. One teacher candidate shared her insights how local understanding shaped her interactions with the student.

Sensory Characteristics
Student is sensitive to noises and can become quite upset in louder environments. He can become very anxious and need to leave. If he believes a student nearby may become loud he will become upset and refuse to go near that area. He does however enjoy audio learning at an appropriate level via various mediums. I have also observed that he likes to touch and feel the texture of various objects that he is not yet familiar with.
Potential Impacts on Literacy
It can be difficult for him to focus on learning and complete assignments when it is louder. His anxiety over possible noises affects his ability to focus on learning and completing assignments which affects his ability to learn to read, write, listen and speak.   *In contrast, learning activities that involve light audio stimulation or texture will help to keep him engaged.*

Figure 1. One Section of the Observation Protocol for ASD Characteristics

> By completing the observation protocol for this student, I looked at how he functioned socially, emotionally, cognitively and behaviorally. I was able to develop a general overview of the student as well as hone in on certain characteristics of the student that made him unique. The most important lesson learned from this was that each student is different and requires different supports.
>
> (Teacher Candidate)

By identifying student characteristics and brainstorming potential impacts on student literacy learning, teachers have a much better understanding of what student needs are in any given lesson. "There are specific characteristics of students with ASD that can be restricting when trying to teach literacy but knowing the student's characteristics enables me to find ways to engage him in many beneficial literacy activities" (teacher candidate). In other words, the teacher candidate's instructional decisions became more responsive to the student's characteristics. One teacher candidate aptly expressed this insight in the following reflective statement:

> Now that I've learned the process for identifying the student's individual characteristics, I have come to realize that I need to account for the student's individual learning, behavioral, emotional, and sensory needs and how these needs are going to be accommodated within my lessons. I have grasped an understanding about why specific modifications and accommodations are helpful to this particular student based on the student's individual characteristics.
>
> (Teacher Candidate)

Because the protocol prompts teacher candidates to brainstorm potential impacts of the characteristics in each category on literacy learning, teacher candidates become aware of the specific behaviors that they can expect from the individual child. Each time that the student is

provided with a literacy learning opportunity, they can anticipate which specific characteristics will activate and impact the student's access to that opportunity to learn. One teacher candidate shared her understanding of this phenomenon by commenting as follows:

> I have learned that every child with ASD has unique characteristics in how they learn, communicate, interact, and behave. Some students with Autism may struggle with transitioning from one activity to the next, while another student may have a difficult time communicating with peers or teachers.
>
> (Teacher Candidate)

Teachers, caregivers and students themselves can become more aware of which characteristics will likely impact each of the learning activities that are part of the daily literacy instruction activities. This local understanding, together with the heightened awareness of how activated characteristics are likely to impact literacy learning, forms the basis for quality decision making about the kinds of supports a student can benefit from.

Instruction also focused on helping teacher candidates successfully address the barriers children with ASD face (Copeland & Keefe, 2007; Downing, 2005; Kliewer & Biklen, 2007; Kluth & Chandler-Olcott, 2008). Teacher candidates became familiar with the wide variety of supports that they can draw from to match activated characteristics for any given learning activity. Supports are specific kinds of help that enable the student to deal with specific characteristics that might impede learning in ways that allow the student to engage with the literacy activity. For example, if a student presents a sensory characteristic of needing pressure, she may wear a weighted vest that safely and comfortably provides the needed pressure so that she can focus on the literacy learning opportunity at hand. Supporting student characteristics goes hand-in-hand with utilizing flexible literacy activities and strategies, as well as accepting a wider variety of kinds of performance. The goal in using supports and flexible literacy activities is to provide the students with ASD access, the fullest access possible, to the benefits of learning activities that develop their literacy. Teacher candidates were encouraged to provide supports through a collaborative team approach, including other teachers, related service professionals, parents, peers, and the student themselves.

To become familiar with the specific kinds of supports that match characteristics, teacher candidates can start by drawing from an initial list we provide them of the different kinds of possible supports for each of the six distinct categories of characteristics that students with ASD present. Figure 2 shows a table that teacher candidates develop within the project to outline personalized supports for their student with ASD.

Teacher candidates can select a support associated with a category. For example, supports for the category of communication characteristics might include using visuals to accompany oral speech as well as utilizing assistive technologies. Depending on the activity and the specific characteristics of ASD that might impede learning, the teacher candidate selects the support that will best enable the student to fully engage in the activity. Supports can be incorporated into instruction by making instructional accommodations and adaptations. Over time, students themselves internalize the use of these supports and feel empowered to use them as needed to initiate and sustain their own engagement with literacy.

Characteristic that May Occur	Examples of Possible Supports
Communication Characteristics: *Challenges with tone of voice, volume, pitch, etc.* *Challenges with speech* *Challenges with initiation* *Immediate or delayed echolalia* *Challenges with processing speech* *Challenges with figurative language, idioms, metaphors, etc.* *Challenges with pronouns*	**Communication Supports:** Augmentative and alternative communication devices and/or systems Peer support and models Sentence starters Visual supports Language supports and models
Sensory Characteristics: *Tactile sensitivity* *Auditory sensitivities* *Visual sensitivities* *Olfactory sensitivities* *Other Areas of Sensitivity: temperature, pain, vestibular system, proprioception*	**Sensory Supports:** Calming strategies Sensory-free zone Fidgets Sensory activities

Figure 2. Possible Supports for Characteristic Categories

In this study, teacher perspectives and sense of preparedness was impacted as teacher candidates focused on a local understanding of their student with ASD and utilized appropriate supports and flexible literacy activities (Kluth & Chandler-Olcott, 2008). Teacher candidates comprehended that teacher-student interactions must involve the choice of and use of salient supports informed by local understanding. Supporting the characteristic(s) activated by an appropriately challenging literacy activity enables students with ASD to engage, participate and learn. "I learned that providing appropriate support to make students feel successful is extremely beneficial for their learning process (teacher candidate)". Children and youth with ASD are empowered by using supports to address their characteristics in ways that allow them to grow in reading, writing and oral language: literacy development that can unlock the power of communication and connection. One teacher candidate described supports as strategies that students with ASD can employ to mitigate the effects of characteristics that could impede their own learning. She reflected as follows:

> I've learned that the student needs to have supports in place to better help him/herself access the lesson. Whether that be a fidget that is available, or the opportunity to take a break as necessary, the student needs to have strategies and plans of action for when he/she experiences difficulty during lessons as a result of ASD. This helps the student better access the content, and also teaches them how to work independently in spite of ASD.
>
> <div align="right">(Teacher Candidate)</div>

Most teachers are familiar with the concept of differentiation of instruction (Thousand, Villa & Nevin, 2015). The notion of supports adds a helpful dimension to teachers' understandings of differentiation precisely because supports are intimately connected to a local understanding of student characteristics. One teacher candidate described how she used specific supports to differentiate for one of her lessons based on her student's characteristics.

> A fairly common outcome with having hyperlexia is having the ability to decode words, but not being able to comprehend them. This student also tends to elope from his seat to another area of the room, when sitting for longer than 15 minutes. I used accommodations to support this student when working towards his reading comprehension goals. These included using pictures to sequence, having a visual with written steps, and using a token system throughout the activity to decrease eloping.
> (Teacher Candidate)

When thinking about how to support student characteristics, teacher candidates made the connection between student's strengths and needs and the differentiation of instruction. One teacher candidate concluded that successful instruction is built around the needs and interests of her student with ASD. "Building my literacy lesson around my student's needs and interests, using elastic instructional approaches, breaking it into two small parts, continuously scaffolding, using visuals and allowing for breaks when needed helps me create appropriate lessons" (teacher candidate). In short, the differentiation of instruction is seen as an actualization of the presumption of competence and responsiveness to student characteristics. It is not using a pre-packaged "differentiated" curriculum. One teacher candidate shared her insight into the planning process to incorporate specific supports. She stated the following:

> As I set out to design an adapted lesson for this student, I had to value his listening skills just as much as being sensitive to his limited speaking abilities. Through the process of planning a lesson, I learned how much time it takes to keep the individual in mind. It is not as simple as pulling a lesson out of the curriculum books. It is not as quick as looking through grade level activities.
> (Teacher Candidate)

As teacher candidates learn to look for appropriate supports that match their student's needs, they began to see how important it is to use flexible, elastic literacy activities (Hartmann, 2015; Meyer & Rose, 2012; Udvari-Solner, Villa, & Thousand, 2005). One teacher candidate stated that she wanted to make "differentiation my second language in order to be able to have an individualized and 'elastic' instructional approach by incorporating different strategies for optimal learning as opposed to rigid instruction" (teacher candidate). Teacher candidates were encouraged to search for supports and flexible literacy strategies and activities to be responsive to individual student's strengths and needs in all areas of literacy with a focus on expanding opportunities for literacy. Teacher candidate's lessons exemplified the use of elastic literacy strategies to support their students. For example, one teacher candidate, working with her student

on a comprehension lesson, identified motor integration and coordination as an area for support. He had difficulty with writing and coloring. To teach him to identify the story elements (i.e., plot, character, setting), the teacher decided to use a flexible strategy of graphic organizer and pictures. "I had him use pictures and a graphic organizer when going over the story; that way that student didn't have to write but just simply tell me and place visuals into the graphic organizer on the main ideas of the story" (teacher candidate). Worthy of note is the way in which the teacher candidate did not demand that he write, yet made sure that he was fully cognitively engaged in the comprehension activity.

Teacher candidates talk about using more flexible literacy strategies and activities provide students with ASD more meaningful opportunities to engage in appropriately challenging academic literacy activity. "I had to really look at what motivates this child and look for methods that he responds positively to and incorporate them in the lesson design" (teacher candidate). They learn that the goal of differentiation of lessons is to help student master valid objectives related to their literacy development. Thus, using local understanding to make quality decisions about the kinds of supports a student can benefit from ultimately leads to students engaging appropriately challenging, academic literacy activity and experiencing the associated benefits.

Conclusions

Given that the goal of literacy instruction is literacy development that unlocks the life-long benefits of literacy for individuals with ASD (Kluth & Chandler-Olcott, 2008), this study focused on providing training to teacher candidates that focused on helping them to understand and address the barriers that children and youth with ASD experience to their literacy development. This study is part of on-going efforts in education being made "to systemically change the methods and structures that preservice and in-service teachers are trained in order to ensure that all students are included in today's classrooms" (LaBabera & Soto-Hinman, 2009, p.7). This work connects to the principles of whole schooling in that it engages teacher candidates to create caring environments where students are assessed based on their unique characteristics, where ALL students are provided opportunities to learn together in inclusive environments, and where individuals with ASD are seen as competent learners who have the right to access to the power of literacy instruction.

In this study analysis revealed that teacher-student interactions can change when teachers address the barriers of the prevailing attitudes about autism, the lack of local understanding and the unfamiliarity with relevant supports. First, teacher-student interactions change as teachers embrace the power of a more inclusive framework for literacy instruction. The interactions are better defined through exploring the possibilities that the characteristics may afford students to engage in appropriately challenging literacy activity. Second, teacher-student interactions change as teachers' develop a local understanding of each of their students with ASD. The interactions are better informed by an in-depth understanding of a student's characteristics and their potential impacts on literacy learning. Third, teachers become familiar with and utilize supports together with more flexible literacy activities. The interactions involve the choice of and use of salient supports informed by local understanding to differentiate instruction in ways that enable students with ASD to engage, participate and learn.

As a result, teacher candidates engage in new possibilities of the liberating power of literacy activity for their students and feel more prepared to work with this population. As teacher candidates begin seeing the potential of their students to develop their literacy and that

their students can truly be successful with real literacy activity, they start to wonder at current practices that limit students with ASD from more literacy learning opportunities. One teacher candidate shared that given limited expectations of her student with ASD, he was rarely given opportunities for the kinds of interactions with peers that could foster his literacy development.

> My student is in a special day class and he is only given short inclusion opportunities throughout the week, in library and music. This is not allowing him many opportunities to communicate with his peers in educational settings. In his classroom his peers do not respond when he initiates communication, which frustrates him. Teaching students to read, write, speak, and listen is extremely important and students who are not given opportunities to have peer models, as well as teacher models will not excel to their fullest potential.
>
> (Teacher Candidate)

Questioning the status quo in this way is one more piece of evidence that the teacher-student relationship can change when teachers understand the empowering use of supports to provide the students with ASD the fullest access possible to the benefits of learning activities that develop their literacy.

In addition, as they buy-in to a more inclusive framework for literacy instruction, teachers begin to see how what they have learned can impact their overall teaching philosophy. One teacher candidate shared her insights about the potential effects on her practice as she reflected on her experience using local understanding and supports to differentiate for her student with ASD.

> What I have learned I hope will help me create better lesson plans, and create a classroom environment of exploration and learning, as well as a safe place to learn, make mistakes and grow. Education is not the old cliché of "one size fits all" type of situation, but knowing how a child learns and what their abilities are, can allow for growth so each student can find success.
>
> (Teacher Candidate)

What is notable about this teacher candidate's comment is the emphasis on the changes to her overall approach to teaching each and every student. This was a common thread among the teachers with whom we have worked. Their explorations with the inclusive framework for literacy instruction gives them the opportunity to revisit their assumptions about the teacher-student relationship and associated interactions, particularly in terms of valuing and responding to their students' potential for literacy development.

The barriers to literacy development for children and youth with ASD can be successfully addressed when local understanding shapes teachers' interactions with students. In so doing, teachers unlock the treasure trove of benefits that literacy can provide individuals with ASD throughout their lives to engage with the world, connect with others, and communicate their experiences and their insights.

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