Teaching Reading Comprehension to Students with Autism Spectrum Disorders in Social Studies Classrooms: Middle School Teacher Perceptions

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Abstract

The purpose of this qualitative study was to describe the perceptions of general education middle school social studies teachers related to their teaching practices and the inclusion of students with Autism Spectrum Disorder (ASD) in their classrooms. More specifically, an in-depth exploration of general education social studies teachers' incorporation of reading comprehension skills or strategies, teaching practices, and planning was conducted. The findings indicate teachers are teaching reading comprehension in their social studies classrooms however are not distinctly planning for the students with ASD needs. Implications for practice and limitations are discussed.

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The number of children diagnosed with autism spectrum disorder (ASD) and requiring special education services rose during a 5-year span from 192,643 to 370,011 and saw an increase of 64% among these of middle school age (35th Annual Report to Congress on Individuals Disabilities Education Act, 2013). Common characteristics of children with ASD include difficulty with the recall of nonfactual information, drawing conclusions, and making judgments (Griswold, Barnhill, Smith-Myles, Hagiwara, & Simpson, 2002). With regard to reading, word recognition is often cited as a strength and reading comprehension a weakness for students with ASD (Carnahan & Williamson, 2013). Over the past 15 years, educational policy recommendations such as those from the National Reading Panel (2000) and Common Core Standards implementation mandates (Common Core State Standards Initiative, 2011) require literacy instruction throughout the content areas. Teacher effectiveness in developing reading comprehension within the content areas is important for success in middle and high school,

especially for students with ASD who experience difficulties with reading comprehension coupled with a focus on "reading to learn" via expository text (Carnahan & Williamson, 2013).

Common Core Standards (Common Core State Standards Initiative, 2011) are rigorous and have been developed to ready students for college and career. These standards, which require a deeper level of thinking and conceptual understanding for students, may challenge both general and special educators when planning activities to develop and support student learning, especially related to the teaching of reading comprehension. In addition, revisions to the professional teaching standards in many states suggest content area teachers teach reading skills as part of the content instruction. For teachers, the ability to effectively teach content area material as well as develop reading comprehension skills to meet the Common Core Standards and impact student learning requires careful planning as well as a clear understanding of all students, particularly students with disabilities such as ASD. For students, the ability to use reading skills in all content areas is important especially as they progress into middle and high school.

Content area instruction often involves students reading a textbook, answering questions about text, and summarizing the information as a way of demonstrating understanding of the content or what was read. Typically in a content area such as social studies, students are required to develop thinking skills that establish community and citizenship understandings (National Council of Social Studies, n.d.). This is mostly evident as students move through middle and high school content area classrooms, which are often text-based classroom environments. It is not uncommon for middle school or high school content teachers, who are often prepared in a discipline-specific manner, to lack knowledge for how to prepare students to develop reading comprehension skills or strategies (Nichols, Young, & Rickelman, 2007). However, legislation (IDEIA, 2004; No Child Left Behind, 2000) requires accountability for all learners' achievement as well as content knowledge so the importance for middle or high school teachers to use evidence based practices for developing reading comprehension within the content areas becomes apparent.

The research literature documents the benefits of providing reading comprehension instruction within the content area classroom. For many learners, including those with ASD, explicitly teaching reading strategies in the context of content curriculum has shown to improve both reading comprehension and content understandings (Mastropieri et al., 2006; Simpkins, Mastropieri, & Scruggs, 2009; Whalon & Hanline, 2008). Using reading comprehension strategies such as self-questioning before reading, story-structure analysis during reading, and summary writing after reading, have been found to increase the comprehension of content area text for learners with and without disabilities (Fagella-Luby, Schumaker, & Deshler, 2007). Scruggs, Mastropieri, Berkeley, and Graetz (2010) concur that using reading comprehension strategies, such as graphic organizers and vocabulary related mnemonics, increase comprehension of the content being taught. Equally important is the way the strategy is taught, practiced, and reinforced with appropriate materials and feedback from the teacher or grade level peers. Teachers can improve reading when they include demonstration and modeling, guided practice, cooperative peer practice, independent practice, and review when embedding and teaching reading comprehension strategies in their content area instruction (Fagella-Luby et al., 2007).

The IDEIA (2004) amendments brought renewed attention to provide access for students with disabilities to the general education curriculum. Specifically, students with ASD need support in deeper-level comprehension as well as reader-response to text. Students with ASD who are higher achieving, such as those diagnosed with Asperger Syndrome, are often able to answer factual comprehension questions, but have more difficulty producing responses that require higher level thinking such as inferring or interacting with the text (Lanter & Watson, 2008). In other words, reading comprehension that involves only factual understanding may mask the inability to draw inferential or deeper-level meaning from text. In addition, cognitive processes such as Theory of Mind and executive function, which are typically weak in students with ASD, may also contribute to difficulty with reading comprehension (Carnahan, Williamson, & Christman, 2011). Firth and Firth (2006) describe Theory of Mind as the ability to understand others' perspectives and feelings and one's perspectives or feelings influence action. Executive function is the ability to plan and organize one's thoughts and then apply self-monitoring strategies (Attwood, 2008). The aforementioned weaknesses for students with ASD impact reading comprehension in content area classrooms where higher-level reading skills are expected and necessary when reading expository text. However, there are few studies involving students with ASD in middle or high school content areas, such as social studies classrooms where students with ASD are often included in the general education setting.

Reading strategies identified to develop some of the comprehension skills that require deeper understanding have been identified as use of mnemonics, graphic and spatial organizers, making connections with prior knowledge, building extensive background knowledge, monitoring text, and use of higher level questioning techniques (Hart & Whalon, 2008; Lanter & Watson, 2008). In the past few years, research has shown that students with ASD can benefit and increase reading comprehension when teachers devote time to teaching and using reading comprehension strategies.

Munro-Flores and Ganz (2007) conducted a study using single-subject design to determine the extent that a Direct Instruction Program, teaching learning strategies, has on the reading comprehension skills of students with ASD. The four elementary aged students received instruction for twenty minutes a day, in a group format, using a published direct instruction reading program. The program included detailed instructor scripts used by the researcher to develop inference skills using facts from the stories and skills related to creating and understanding analogies. The skills were taught using explicit instruction, in groups and one-on-one formats, and were taught with teacher modeling and demonstration. The study results were positive for increasing reading comprehension for students with ASD. All four students increased their reading comprehension ability from baseline through post-intervention phases maintaining their reading comprehension for one month after treatment ended (Munro-Flores & Ganz, 2007).

Whalon and Hanline (2008) also conducted a single subject study that involved the use of strategy instruction to increase reading comprehension for three students with ASD. The students with ASD were boys and worked with nine general education peers as cooperative partners. The researcher provided modeling and demonstration for generating and asking questions. The students were provided with a visual checklist of the steps to use while

completing their routine of generating and asking questions. The students were not only evaluated on their ability to generate, ask, and answer questions, but also on their ability to ask the right type of question based on the story element identified (e.g., setting = Where did the story take place?). At the end of the treatment phase, all students were able to generate and answer questions at a higher frequency than was occurring during baseline. A social validity measure also showed that the students enjoyed working with each other collaboratively and felt the strategy was beneficial.

The findings of studies described provide evidence that reading comprehension can increase for students with ASD when developed through the use of comprehension strategies such as these taught in general education reading programs. The studies also highlight the gap in the research for middle school teachers and the practices they use to develop reading comprehension within their content area class. With the strong focus on literacy practices in the current standards-based movements as well as the limited research for students with ASD in content area literacy skills, the current study focused on understanding the processes middle school teachers used to teach reading comprehension in their social studies classrooms that included students with ASD.

The purpose of this qualitative study was to describe the teaching practices for developing reading comprehension in social studies classrooms from the perspectives of middle school teachers. More specifically, the teachers' viewpoints related to their planning and teaching practices were explored. The primary research question was: What are the perceptions of general education middle school teachers related to their teaching practices for students with ASD who are included in their social studies classrooms?

Two sub-questions that guided this research were:

1. How do these teachers report that they incorporate reading comprehension in the context of teaching social studies?
2. What specifically in relation to planning and teaching do these teachers report that they incorporate to attend to students with ASD?

Method

The participants were 10 middle school, general education social studies teachers with 3-40 years of teaching experience. Nine of the teachers were female and one was male, and nine of them had been teaching for at least 5 years in their current building. With regard to grade level, three of the teachers were sixth grade teachers, four taught seventh grade, and three taught eighth grade. The teachers had either a K-9 certificate ($n = 4$) or a 6-12 certificate ($n = 6$), and one of the teachers had special education certification as well. In terms of experience teaching students with disabilities, all teachers had taught students with varying disabilities in their general education classrooms previously (e.g., ADHD, ASD, cognitive impairment, ED/BD, learning disabilities). In addition, all teachers had the opportunity, at some point in their teaching career, to receive training in the teaching of reading (e.g., professional development, graduate courses, preservice reading courses). The teachers' class sizes ranged from 20-30 students, with all the teachers teaching two sections of social studies a day, and with a few teachers also teaching at least one section of language arts. Table 1 includes the backgrounds of the teachers.

Table 1
Participant Background

Participant	Years of teaching experience	Grade/ Content Areas	Number of classes taught/day	Average # of students per class	Current Year/ Number of students with ASD *	Degree/ Certificate	Approvals/ Endorsements
T1	10	8 SST	5 SST 1 advisory	25	1	MS +30 K-9	Social Studies
T2	40	7 SST	5 SST	24	1	MS 6-12	Middle School Gifted
T3	20	7 SST	5 SST 1 advisory	24	1	2 MS 6-12	Social Studies
T4	15	8 SST	3 SST	30	1	MS 6-12	Social Studies Middle School Language Arts
T5	6	6 SST/LA	1 SST 4 LA	30	1	BS K-9	Social Studies Middle School Language Arts
T6	24	7 SST	6 SST	20	1	MS +30 6-12	
T7	15	6 SST/LA	1 SST 4 LA	29	6	MS 6-12	Social Studies Middle School Language Arts
T8	10	6 SST	3 SST 1 TAP	27	2	MS K-9 LBS1 (K-12)	Social Studies Language Arts
T9	29	8 SST/LA	1 SST 4 LA	30	2	MS +60 K-9	Social Studies English

T10	3	7 SST	5 SST	26	1	BS 6-12	Social Studies Middle School

Note. BS: Bachelor of Science. LA: Language Arts. LBS1: Learning Behavior Specialist 1. MS: Master of Science. SST: Social Studies. TAP: Teacher Assistance Period
* All participants had students with ASD in past years, number not reflected.

In order to recruit participants, information was circulated to suburban middle schools, located in a county adjacent to a large midwestern city. Middle schools with a full inclusion philosophy were identified so as to increase the likelihood that the general education content teachers would have recently taught a student with ASD in his/her classroom. The websites for the middle schools were reviewed carefully to determine if reading instruction was included in the school professional development plan or if increasing student reading was part of the school improvement plan. Given this dual criteria, thirty-one middle schools and 331 middle school teachers received the recruitment information.

Purposeful sampling was used to select the participants that met specific criteria (Maxwell, 2005). The inclusion criteria were: 1) currently teaching sixth, seventh, or eighth grade social studies, 2) currently having at least one student with ASD in their classroom, and 3) having had at least one student with ASD during the previous three years. Recruitment was repeated through several cycles and this yielded 11 teacher volunteers interested in participating in the study. A screening interview was conducted by phone and ten of the eleven teachers met the selection criteria.

Procedure

The participants took part in two interviews conducted in their classrooms regarding their knowledge and perceptions of teaching students with ASD in inclusive classrooms and how they incorporated reading comprehension strategies into teaching. Before the first scheduled interview, the questions were sent to the participants so that they could reflect and prepare ahead of time. At the same time, interviewees were informed of the procedures involved in the interview process; such as the length of the interview, audio-recording, and note-taking by the interviewer. Interviewees were also invited to bring a classroom artifact (Parker-Katz & Tejero Hughes, 2008), which could highlight the teaching practices they shared in the interview.

A computer and an audio-recording device were used to record the interview. Immediately following the interview, field notes were taken to describe the setting, demeanor of the participant, and any documents or artifacts that the participants brought to share (Creswell, 2013). The interviewer (first author) used these field notes to reflect on main points and to note reactions of the participant and any other relevant information that could help develop a deeper understanding of the teachers' perceptions (Kvale, 2007).

The first set of interviews, each 60-70 minutes in length, were transcribed and returned to the participants within two weeks via email. Each participant provided a member check (Miles, Huberman, & Saldana, 2014) by reading through the transcript to ensure that the recorded

information was accurate. The participant was asked to note any changes they wanted to make including any additions, and these would be discussed and included at the second interview.

A second interview was conducted to further investigate the research questions, and to clarify from the first interview as needed, and to further explore ideas that were noted during initial analysis of the first interview. Each participant also shared at least one classroom artifact (e.g., student work sample, formative assessments, worksheets) and the interview included questions about the artifact(s). There was a three-week span between the first and second interview and this allowed for the participant to reflect on topics from the first interview and make any changes they felt needed to be made. If there were no questions or changes to be made, the second session served to elaborate and to explore their ideas and perceptions regarding teaching reading comprehension more deeply. The second interview lasted 30-60 minutes and used the same procedures for interviewing and member checking.

Data Analysis

The interviews were transcribed and analyzed using a number of steps that included; (a) initial reading and tagging of ideas, (b) developing codes, (c) assigning the codes to transcript data, (d) comparing and categorizing the codes into themes, (e) creating visual representations of the identified themes for comparison, and (f) categorization to address the research questions. To start, the interviewer read through the transcripts looking for unique thoughts and ideas in the teachers' responses while writing down words or phrases that characterized the words (Miles et al, 2014). Based on these words and phrases, an initial set of codes was derived in relation to the research questions. A second round of coding took place in which more codes emerged and NVivo software ("NVivo9," 2011) was additionally used with several more codes being identified. In all, eleven code categories were used to develop the themes throughout the analysis process.

A constant comparison process was used during the data analysis process. The data were coded to fit into one category and a unit of analysis consisted of a teaching practice or a reading skill or strategy taught. To fine-tune codes, they were grouped and compared using the similarly coded transcripts and field notes as the themes emerged (Miles et al, 2014). All interviews were reread until saturation was met, meaning that no new insights, categories, or themes were revealed from the data for coding (Charmaz, 2014). The same coding process was used with the second interviews, combining with the findings from the first interviews until saturation was met. While the participants' comments and descriptions of the artifacts that they shared had already been analyzed in the context of their interviews, the content of the artifacts were connected to the themes for visual evidence.

After the initial analysis of the interview transcripts and the artifacts, 20% of the transcripts were randomly chosen (two first and two second interviews). Having knowledge of qualitative analysis and familiarity of the research questions, a higher education colleague completed a round of analysis, developing codes and descriptive themes. Comparing to the initial coding, the number of agreements was divided by the sum of number of disagreements and number of agreements and multiplied by 100 to calculate inter-rater reliability (Miles & Huberman, 1994). An average inter-rater reliability of 84% resulted. Words and phrases that were coding disagreements were discussed until consensus was reached about the meaning of an item or

theme. These clarifications were then incorporated into a final round of analysis of the entire data set.

Results

The present study focused on the teaching practices that middle school teachers were using to teach reading comprehension within the context of social studies. The teachers shared the teaching practices in reading comprehension, methods for planning, and adaptations for students with ASD that were included in their general education classrooms. The results are presented under three principle topics, representing the themes that were identified in the data: (a) teaching reading comprehension in social studies; (b) actively engaging all students in social studies content; and (c) teacher planning. The teachers' own words are cited to provide examples and are by no means exhaustive.

Teaching Reading Comprehension in Social Studies

All 10 teachers stated that they taught reading comprehension during their social studies instruction. The teachers were specifically asked how they taught students to develop reading comprehension within the context of their social studies instruction. In their explanations, the teachers reported teaching specific reading skills as well as teaching specific reading strategies to develop reading comprehension. Reading skills such as vocabulary development and main idea identification were mentioned by 9 of the 10 teachers as being taught the most frequently. In addition, 9 of the 10 teachers described summarization, self-monitoring, and use of text structure as reading comprehension strategies that were taught. In all, 14 different reading comprehension skills or strategies were reported as being taught by the 10 teachers within the context of their social studies instruction. These include; vocabulary development, main idea, summarization, making connections, compare/contrast, visualization, questioning, using background knowledge, cause and effect relationships, self-monitoring, text-structure, predicting, identifying author's purpose, and reader response in writing

Vocabulary development was a reading comprehension skill that most of the teachers reported as teaching on a regular basis. The teachers stated the importance of having a good understanding of the terminology that was connected to specific topics or content being taught in the social studies classroom. All of the teachers reported that the students with ASD in their classrooms were successful learning the content area vocabulary they were teaching. The teachers indicated that they used direct instruction as well as exploratory activities to teach the word meanings. Three of the 10 teachers noted that the social studies teachers at their building chose common names and vocabulary terms from the social studies text and materials that they would teach throughout the academic year. An example of this shared by a seventh-grade teacher was:

> *Now, I don't want you to be confused and think that I just throw this up there and say, okay everybody learn all these words. These were words that we picked out as a department as things that we thought kids should be able to know some important people as well as some important content vocabulary on things that were important.*

Main idea was the second most recurring reading comprehension skill taught by most of the teachers. The teachers shared that understanding the "big picture" of the topic was critical to

success in social studies and that being able to determine the most important idea from the social studies text demonstrated that students comprehended what they read. All of the teachers commented that this was an area the students with ASD in their classrooms had difficulty with. It was also reported that being able to articulate the main idea was a targeted reading skill that was also emphasized and taught at all grade levels and specifically in social studies. For example, this teacher said:

> *To get more specifically to what you're asking, each department is trying to identify what we can do to help support the reading goal. We have decided that kids struggle with main idea. When you said main idea it was like yeah. We are gonna [sic] focus a little more on helping kids find the main idea and using the textbook.*

Actively Engaging All Students in Social Studies Content

When teachers talked about their teaching practices, there were several commonalities in the types of activities they described. Most often these rationales were in relation to viewing a particular practice being beneficial for all learners in their classrooms. None of the teachers mentioned a teaching practice that had specific evidence for increasing reading comprehension for students with ASD. The most commonly mentioned practice was "hands-on activities" to teach social studies. When teachers spoke of "hands-on activities", they described involving their students in experiential learning.

For example:

> *During my Civil War, I teach the Civil War and I teach it as a simulation. I find with all of the kids, if you're more involved, hands-on, you're going to learn it. I have different characters for the students. I have a made up name, I have a background, and things like that.*

Another example:

> *I moved the desks around. I covered them with butcher-block paper. I have placards with pictures of cave art that they are real artifacts that have been found. They're photographs of them. I put them up inside the walls. They go into the caves. They look at real artifacts, real pictures – pictures of real artifacts and make a hypothesis. What do you think? What does that tell you about those people?*

Many of the teachers spoke of participation activities that required the students to be involved with the content in ways other than just reading the text or listening to the teacher lecture. This typically included physical movement or placement of the students themselves within the context of concepts/ideas being taught.

Regarding students with ASD, the teachers used words like "respect" and "building relationships" and they talked about creating activities and varying in the way they were taught. They did not, however, describe if the activity actually met a specific learning need of the student with ASD in their classroom. An example of this:

> *I believe in gifted education for all kids. I don't really start lower or average and then just have my gifted on a different track. To tell you the truth, I go the other way and I learned that from my own kids.*

Another teacher spoke of one of her students this way:

> *How can we help you? How can you be successful? For me as just a social studies teacher, I just really want him to love history. I want that for him. If he could leave here with a love of knowing the story of America, to me that would be the most successful thing of all.*

The teachers explained this as having high expectations for all their students and wanted students, regardless of how they learned, to feel comfortable and successful in their classroom completing the work assigned. A sixth-grade teacher typified the sentiments of most:

> *We do whatever we can to make the kids feel successful. If they can show us in any way, shape, or form that they know it, we'll take it.*

Teacher Planning

An important component of a teacher's duties is planning, so the teachers were asked to describe their process for planning given they had a student with ASD in their classroom. Planning was defined in the current study as the process teachers use when they are deciding what to teach, how to teach, and what materials they might use. Eight of the ten teachers talked minimally about planning and two of the teachers did not mention planning at all even though they were specifically asked this question during the interview. The teachers' comments about planning referred to the curriculum or topic of study rather than how they might differentiate or vary for the differing needs of their students. Teachers described planning a unit, or commented that planning was time-consuming, or that when planning they kept the "big picture" in mind. For example:

> *Okay, well when I do plan, yes I do have a big idea and I have one goal per lesson. The kids actually do get to see the goals. I print them out on a weekly basis and so by the end of the week, "you should be able to," and then we actually go back and assess whether or not we felt like we were able to do that.*

Another example:

> *I think in terms of overall generality as a unit. What am I trying to accomplish with this unit with this idea? I start with an essential question. How am I going to get from point A to point B? What stops do I have to make along the way.*

The teachers were specifically asked to comment on how they planned to meet the needs of the student with ASD in their classroom. Regardless of the definition of planning provided to the teachers and the specific nature of the question, none of the teachers' responses directly addressed how the needs of students with ASD were planned for. There was evidence, however, that they indeed thought ahead recognizing that adaptations were needed for the student with

ASD in order to complete an activity. All of the teachers referenced working with a special educator or paraeducator by sharing activities or class work that they thought the student with ASD might not be able to complete or have difficulty with. The teachers described seeking advice from their colleagues about adaptations when they were reflecting about student work. For example:

> *We get our plans together and then we get all the worksheets and everything to our special ed T.A.'s or our special ed facilitator and they do get ideas. Initially, we plan for the regular ed student with other things in mind. Since I've been teaching for so long we have a lot of modified things already. They took a look at them and see if they'd be suitable for their kids (ASD) or not.*

Similarly:

> *I think we'll just keep on keeping on and being open to if something is working well, okay, we're going to go with this. If something is not working well then we're going to brainstorm, whether it is by myself, whether it is with the aide and I, whether it is the aide and the special ed teacher and myself coming up with what works well for him.*

Another example:

> *When you get assignments and you look at it and go okay, this is not like you said. Totally not getting the objectives here, missed it. In that case, I would almost immediately go back to the special education teacher and the assistant and say hey, could you have this kid redo this in guided study or why do you think he was way off? I thought he understood the three documents and see what they have to say.*

A system for planning that resembled a procedure like universal design for learning (UDL) (Spooner, Baker, Harris, Ahlgrim-Delzell, & Browder, 2007) was absent from the information shared by the teachers.

Discussion

The current state of education requires all teachers to support student success in reading regardless of the content area, subsequently calling for content area teachers to become teachers of reading (Common Core Standards Initiative, 2011). Traditionally, content teachers are prepared to teach the subject area with minimal attention to teaching reading, which may contribute to a lack of reading skills or strategies that are subsequently taught to their students (Nichols et al., 2007; Shanahan & Shanahan, 2008). The literature documents the notion that content area teachers often feel uncomfortable teaching reading given a lack of preparation in this area (Nichols et al., 2007). In contrast, the teachers in the present study identified that they were teaching reading with each teacher mentioning teaching at least three different reading skills or strategies within the context of their social studies instruction. They described attending school-wide professional development related to teaching reading comprehension strategies. Their experiences in previous professional development or coursework on content area reading may have contributed to the implementation of reading skills and strategies in the social studies

classrooms. This concurs with Barry's (2002) findings regarding the comfort level in the teaching of content area reading when content teachers are prepared to teach reading by way of coursework or professional development. Another factor that may have impacted the use of reading comprehension strategies was the years of teaching experience; most of the teachers had more than five years of teaching experience in middle school. Kohler, Henning, and Uma-Wilches (2008) reported that teachers with more years of teaching experience may be more competent when choosing teaching practices for their classrooms. The influence of professional development and years of teaching experience appear to have impacted the instructional decisions the teachers in the present study are making.

Given the limited research on reading comprehension for students with ASD, the results of this study contribute to the current literature. Previous studies with students with ASD document their difficulty with reading comprehension (Carnahan et al., 2011; Griswold et al., 2002); the social studies teachers concurred and acknowledged that the students with ASD in their classrooms had difficulty with reading comprehension. The teachers in this study mentioned a range of reading comprehension skills they were addressing in their social studies classrooms, with vocabulary development being the most commonly taught skill.

Social Studies curriculum is heavy laden with vocabulary so it is not surprising that the teachers mentioned vocabulary development. Shanahan and Shanahan (2008) report the importance of developing disciplinary academic language when integrating content area literacy techniques in classrooms such as social studies. Additionally, Fagella-Luby and Deshler (2008) state that reading comprehension begins at the word level. The teachers in the present study corroborated that notion in that they were teaching the vocabulary their students would be encountering from the social studies text and appeared to dedicate significant amounts of time to this focus. Additional research supports the idea that developing vocabulary for students that struggle with language processes, similar to students with ASD, is essential for successful reading comprehension (Watson, Gable, Gear, & Hughes, 2012). The reported success the students with ASD had with learning vocabulary for the social studies content may have been motivating for the teachers in this study and hence contributing to the amount of time spent in their classrooms. Positive student outcomes and success is a contributing factor for teacher decision-making as related to teaching practices that are chosen for instructional use (Kohler et al., 2008).

Second to vocabulary development, the teachers consistently reported teaching the reading comprehension skill of identifying main idea noting that it was important in developing reading comprehension for both the students with and without ASD. Collectively, the teachers agreed that students in their social studies classrooms had to have a good understanding of the "big picture" of the topic to comprehend expository text. A higher-level skill such as main idea proves to be difficult for students with ASD (Carnahan et al., 2011; Lanter & Watson, 2008). Students with ASD often struggle with metacognitive awareness inhibiting their ability to develop a skill such as main idea thus enhancing the need for strategic instruction (Lanter & Watson, 2008; Nation, Clarke, Wright, & Williams, 2006). In addition, research states that to facilitate the skill of identifying main idea teaching, a strategy such as paraphrasing or summarization is critical (Watson et al., 2012), especially for students who have difficulties with metacognitive awareness. The teachers reported having students summarize but did not mention teaching the students with ASD how to summarize in a systematic or explicit way or teaching

them how to connect summarization to identifying the main idea. Given the findings of Lanter and Wilson (2008), the need for strategic instruction for students with ASD related to a skill that is complex, like main idea, is important for growth in reading comprehension. It appears the teachers understood that main idea was a needed reading comprehension skill for students with ASD, however it appears that they did not anticipate the needed instructional support these students would need for development of this skill.

The social studies teachers were asked to describe the reading comprehension strategies taught within the context of social studies. Previous research indicates that the use of the aforementioned strategies, when reading expository text, increases the likelihood of comprehension (Kim et al., 2006; Mastropieri et al., 2006). Regarding reading comprehension strategies, previous research suggests that a systematic and explicit process should be used which includes modeling, guided and independent practice, and the incorporation of generalization and maintenance activities to ensure continued use of the strategy (Fagella-Luby & Deshler, 2008; Fagella-Luby et al., 2007; Gersten, Fuchs, Williams, & Baker, 2001; Sencibaugh, 2005). The teachers in the present study noted that they taught reading comprehension strategies, however, the extent to which these strategies are actually taught by the teachers is left to speculation by the investigators. The teachers did not refer to systematic and explicit instruction, which is an important component for teaching strategies (Kim et al., 2006; Mastropieri et al., 2006). The teachers reported they had professional development but were not specifically asked if they had professional development related to how to teach reading comprehension strategies in a systematic and explicit way, which may have been why they did not refer to teaching the strategies using this approach (Greenleaf, Jimenez, & Roller, 2002).

Another finding relates to the relevance of the teaching practices the teachers were using to teach reading comprehension in their social studies classrooms. Some of the practices the teachers referred to were hands-on activities, visuals such as maps and diagrams, note-taking, and using graphic organizers. While Whalon and Hanline (2008) identify verbal prompting, modeling, and using checklists as teaching practices that have positive outcomes for students with ASD, none of the teachers identified using these teaching practices when asked about the students with ASD. The majority of the teachers in the present study referred to interactive practices that met the needs of all the learners in their classrooms when reporting the teaching practices they used. Although important for all students' needs to be met, the individual needs for students with ASD in general education classrooms require attention to ensure learning is occurring.

Lastly, the findings shed light on the lack of specific planning for students with ASD. The teachers did not describe a clear process for deciding what they taught, how they taught, or how they assessed the students with ASD which is a key component contributing to the success of students with ASD, in general education classrooms (Bryant Davis, Dieker, Pearl, & Kirkpatrick, 2012; DeStefano, Shriner, & Lloyd, 2001; Mastropieri & Scruggs, 2001). Not having a specific planning process could be detrimental for the students with ASD in these social studies classrooms. The research suggests planning as a professional practice for addressing the needs of students with ASD in general education classrooms is necessary for these students to achieve their full potential (Vacca, 2007). Having identified reading comprehension as a need for the students with ASD in their classrooms, creating a process for planning that includes detailed reflection about these students' needs in that area ought to be considered.

Regardless of the fact that the teachers in this study did not articulate a planning process, there was evidence that they did think about the student with ASD when they were selecting class activities. As previously noted, the teachers sought advice from their special education colleagues when needed and referred to this as collaboration, however there appeared to be more cooperation between the sets of teachers. Overall, these teachers were receptive to having the students with ASD in their classrooms however, it was evident that they were not using a research-based practice such as collaborative planning, to meet the needs of these students (DeStefano et al., 2001; Mastropieri & Scruggs, 2001). Although the research shows that collaborative planning, benefits students with disabilities, current research on co-planning with middle school teachers reports that there is still disparity between general education and special education teachers co-planning efforts which seems to be evident in the present study as well (Bryant Davis et al., 2012). The teachers shared how difficult it was to collaboratively plan with special educators given extra duties for both sets of teachers, such as extra tutoring or intervention classes for struggling learners. With the constant addition of federal and state educational initiatives teachers may feel they need to "give up" common time for collaborative planning to address the new initiatives.

Implications for Practice

The findings lead to implications for the variety of topics for professional development that inservice teachers are receiving. It has been noted in the research that using reading comprehension strategies such as summarization, making predictions, and questioning strategies enhances and develops reading comprehension of expository text (Kim et al., 2006; Mastropieri et al., 2006). Professional development that centers on how to teach these strategies using systematic and explicit instruction would be valuable as it is expected given the Common Core Standards that content area teachers teach reading within their subject area. In addition, professional development related to teaching reading strategies for independent student use would be important for increasing positive outcomes. Teachers who spend time developing reading strategies through explicit and systematic instruction as well as including a repetitive cycle for guided and independent practice of the strategy have increased achievement levels in the reading comprehension for their content area (Kim et al., 2006; Scruggs et al., 2010). Providing professional development about reading strategies and how they are taught may increase the chance that students with ASD comprehend the content area text that they are required to read.

When discussing teaching practices, the middle school teachers in the present study did not identify using specific teaching practices that benefit students with ASD. Previous research indicates that for students with ASD to achieve growth in the area of reading comprehension, professional development should focus on the specific reading comprehension needs as it relates to the social studies content (Chiang & Lin, 2007; Hart & Whalon, 2008; Whalon, Otaiba, & Delano, 2009). Providing knowledge for general education teachers on the characteristics and specific reading needs for students with ASD during professional development or teacher preparation courses would enhance the opportunities for including teaching practices that benefit these students. Teaching practices that develop higher-level skills such as purposeful reading, perspectives recognition, and inferential understanding are an important emphasis for increasing the comprehension skills of students with ASD (Carnahan et al., 2011). Emphasizing these

needs in professional development and teacher preparation coursework could develop specific understandings for teachers as they choose the necessary teaching practices for developing reading comprehension within their content area.

While it is necessary to note the individual needs of students with ASD, it is important to take the time to consider these needs during instructional planning (DeStefano et al., 2001; Hart & Whalon, 2008; Mastropieri & Scruggs, 2001). Using an approach such as Universal Design for Learning would be a way to provide accessibility to the curriculum for a variety of learners (Spooner, et al., 2007). Professional development about Universal Design for Learning could facilitate teachers' thinking about how they plan to meet the needs of all students in their classrooms. Teachers are more effective when using a planning process that focuses on individual learners resulting in an increase in student achievement (Lee et al., 2006; Soukop, Wehmeyer, Bashinski, & Bovaird, 2007). General and special educators need to collaborate during the planning process to ensure that the instruction addresses the goals of the Individualized Education Plan (IEP) and other barriers that the student with ASD may encounter within an activity.

Limitations and Suggestions for Future Research

Several limitations appear in the present study. First, the participants were a homogenous group and consisted of nine females and one male. They were all Caucasian and mostly worked in middle-class neighborhoods in suburban Chicago. Some of the participants were working in schools with a diverse student body (e.g., 70% Hispanic in one school, 13% in one school). Another characteristic that may have narrowed the teachers' perspectives is that most of the participants had over five years of experience and extensive professional development. Second, the information the teachers shared via the interview was a measure of self-report (Burke, Hsieh, & Lopez-Reyna, 2012). The authors did not observe the participants during their teaching to corroborate the information that they reported. Also, the participants in the present study were all volunteers and may have done so because they thought the teaching practices they were using to develop reading comprehension were beneficial to students with ASD. Thus, the findings cannot be considered as representative of the larger population of social studies teachers.

Findings of this study indicate a need for future research to better understand what and how general education content areas teachers are teaching expository text reading comprehension to students with disabilities. Future researchers should focus on recruiting teachers from different content areas and grade-levels, professional development and/or previous coursework completed for content area reading to determine the extent to which the previous experiences impacted their teaching practices. Finally, it is important to gain insights from special educators and paraeducators who are involved in the specific planning process for students with ASD in content area classrooms. A planning process that is more collaborative between general and special educators as well as related service personnel leads to a more inclusive experience for all students (Lee et al., 2006; Soukop et al., 2007).

Future research that incorporates observations of the teachers when they are implementing the teaching practices they refer to in their interviews is critical to more fully understand classroom practice. Specific attention to how teachers are using evidence-based reading practices to

promote the reading comprehension of students with ASD would allow researchers to make generalizations about teachers knowledge of "what works".

Given the current stance that all teachers are teachers of reading and the dramatic rise in students with ASD requiring special education services over the last 5 years, the need for professional development that is responsive to teachers' needs is essential. The redesign of professional development for middle school teachers related to research-based practices for students with ASD as well as reading research ensures that middle school content teachers can continue to develop the necessary skills for the success of all their learners.

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