Administrator Perspectives on Writing Instructional Practices for Students With Complex Learning Needs
A Pilot Study

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The adoption of national literacy standards has resulted in writing becoming a priority for students with complex learning needs (CLN). Given extrinsic (school-based) and intrinsic (student-based) barriers, there is a need to understand how educational systems can provide innovative research- and standards-based writing instruction for these students. The creation of new educational standards and expectations, however, does not result in rapid and immediate change in how instruction occurs for these students. The purpose of this pilot study was to collect data concerning the knowledge, attitudes, and observed barriers toward writing instruction for students with CLN as perceived by educational administrators. **Method:** This preliminary study was anchored in the field of implementation science to better understand readiness, adoption, and sustainability of innovative writing instructional practices for students with CLN. Administrator perceptions were obtained through didactic interviews, and a qualitative research design was used to understand themes from the data. **Results:** Results showed that a central challenge across educators is a lack of awareness that change in instructional practice is needed, as well as a perception that these students are not capable of becoming writers. Educational administrators also identified factors that increase positive outcomes when implementing writing instruction for students with CLN. **Conclusions:** To effectively implement writing instruction for students with CLN, educational administrators will need to consider barriers that impact readiness, adoption, and sustainability and develop systematic solutions that increase overall success. **Key words:** *administrator perceptions*, *autism spectrum disorders*, *complex learning needs*, *implementation*, *leadership*, *writing*

WRITING IS AN essential skill needed for full participation in our highly literate society. Writing is used to send a message from the author to an audience and takes on many forms such as real or fictional stories, informational texts, e-mails, text messages, letters, notes, or lists. It can be a means of expression, personal reflection, and self-discovery (Kluth & Chandler-Olcott, 2007). Through writing, civilizations have retained their history, culture, identity, and literature via the transmission of information (Graham & Harris, 2005). It not only results in a permanent product that can be shared and fosters social, educational, and vocational opportunities but also facilitates richer connections with others.

For individuals with complex learning needs (CLN) such as autism spectrum disorder (ASD), intellectual disabilities, physical

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impairments, and severe multiple disabilities, the ability to write takes on heightened importance because it can aid in increased communication, socialization, and independence (Wollack & Koppenhaver, 2011). Historically, students with CLN have received limited or splintered literacy learning experiences, often focused at a basic functional level, such as copying words and sentences, completing worksheets, and handwriting drill-and-practice exercises (Sturm, 2012). To become literate and increase communication skills, students with CLN need access to effective literacy learning contexts that support engagement in authentic, meaningful writing experiences.

WRITERS WITH COMPLEX LEARNING NEEDS

Students with CLN often experience difficulties in writing. They may be affected by deficits in cognition, language, motor, and/or sensory abilities, which are exemplified in their writing through difficulties in spelling, vocabulary diversity, syntax, transcription fluency, ideation, organization, and revision (Bedrosian, Lasker, Speidel, & Politsch, 2003; De La Paz & Graham, 1997; Guzel-Ozmen, 2006; Kaderavek & Rabidoux, 2004; Katims, 1991; Richards & Sturm, 2008; Sturm, Knack, & Hall, 2011; Sturm & Koppenhaver, 2000). Writers with CLN may be affected by external barriers as well, such as lack of life experiences that may limit the background information, context, and vocabulary from which a writer can draw. Low expectations of these students may also limit writing opportunities and thus opportunities to improve (Keefe & Copeland, 2011).

Language ability has perhaps the most direct impact on the writing of students with CLN. Researchers have found a significant correlation between the language of students with CLN and writing outcomes such as spelling, organization, lexical diversity, grammar usage, and overall writing quality (Dockrell, Ricketts, Charman, & Lindsay, 2014; Erickson & Geist, 2016; Sturm, Cali, Nel-son, & Statsowski, 2012; Sturm & Clendon, 2004). Some students with CLN completely lack verbal language and/or communicative intent; others demonstrate delays in pragmatics, syntax, phonology, and morphology that can all limit their ability to write well. In addition, they often have an underdeveloped vocabulary that limits their ability to express themselves both orally and in writing (Sturm & Clendon, 2004). Some students with CLN, such as those with ASD, also may exhibit delays in fine motor skills and visual–motor integration, which can have a direct correlation with the ability to write or type longer papers (Boucher & Oehler, 2013). As a result, the student may have several ideas about which to write but may produce brief writings they are unwilling to develop further because it is physically difficult to do so (Asaro-Saddler, 2014).

ATTITUDES AND BELIEFS ABOUT WRITING INSTRUCTION FOR STUDENTS WITH COMPLEX LEARNING NEEDS

At every level within an educational system, from administrators to paraprofessionals, the greatest barrier to writing for students with CLN is the perception that they are not capable of becoming writers (Keefe & Copeland, 2011; Sturm, 2012). Several factors are linked to this core barrier. First, many teachers feel they do not have the skills or the time to provide high-quality writing instruction (Bifuh-Ambe, 2013). Second, to provide instruction that can support students in their writing development, teachers must feel competent as writers and writing teachers (Bifuh-Ambe). Third, literacy instruction for students with severe disabilities does not reflect best practice; instead, it emphasizes a narrow decontextualized focus with few connections made between instructional activities and authentic use of literacy in everyday activities (Ruppar, 2015; Ruppar, Dymond, & Gaffney, 2011). This barrier exists, in part, because educators lack training in how to provide scientifically derived writing instruction (e.g., Cutler & Graham, 2008). Even with training, teachers often

do not have appropriate curricular guides or time allocated in the day to provide instruction (Sturm, 2012), especially if they do not have administrator support to develop and sustain writing programs (Keefe, Copeland, Luckasson, & Ryndak, 2018).

Additionally, many students with CLN present with severe communication challenges that require accommodations, such as augmentative and alternative communication and writing tools, which support their ability to participate during writing instructional time. A central challenge, however, is that these tools are not readily available (Sturm et al., 2012), and educational support teams working with students with CLN may not know how to choose and employ tools that provide the students with a way to write and communicate.

Many educators continue to believe that a functional focus on life skills is appropriate for students with CLN. Within this perspective, writing instruction for students with CLN has often targeted decontextualized, functional skill development such as repetitive practice for letter and shape formation, copying words and sentences, dictating ideas, briefly responding to writing prompts, and completing worksheets (Asaro-Saddler, Arcidiacono, & Morris Deyoe, 2017; Hedrick, Katims, & Carr, 1999; Ruppar, 2015). Thus, there has been a lack of high-quality literacy instructional practices, such as natural learning environments and purposeful writing activities, used with students with CLN (Carnahan, Williamson, Hollingshead, & Israel, 2012; Ruppar, 2015). For instance, when examining literacy learning environments, Ruppar (2015) found that students with severe disabilities spent a disproportionate amount of time passively learning rote skills, as opposed to being exposed to writing curriculum content that reflects the general education standards, and they were not actively engaged in instruction. Such limited writing opportunities, in turn, limit opportunities to improve writing skills (Keefe & Copeland, 2011).

Federal standards for writing for all students, including those with CLN, have re-

sulted in a reconceptualization of curriculum content that is grounded in general education (Ruppar et al., 2011; Sturm, 2012). Current research also is shifting long-held perspectives by showing that students with CLN are capable of communicating through writing when they are provided with opportunities for authentic learning experiences combined with high-quality instruction. For example, interventions such as Enriched Writers Workshop (Sturm, 2012) have been found to have promise with individuals with a variety of CLN. Another intervention known as "Big Paper," in which 5- to 8-year-old students with moderate intellectual disabilities were seated around a table and prompted to engage in community-based discussion and writing experiences, resulted in an increase in use of high-frequency words, invented spelling, and phrases using a combination of familiar words. Older students with developmental disabilities enrolled in a post-secondary program who were taught to write essays using the ANSWER strategy (Analyze an essay prompt for action words, Notice the requirements of the question, Set up an outline, Work in the details of the outline, Engineer an answer, Review the answer) improved their overall essay quality and increased the number of words written (Woods-Groves et al., 2014; Woods-Groves, Therrien, Hua, & Hendrickson, 2013). For students with ASD, Asaro-Saddler (2016) found that the use of the self-regulated strategy development (SRSD) approach, which combines strategy instruction with prompts for self-regulation, such as goal setting and self-monitoring, was an effective intervention in improving length and overall quality of writing, whereas additional interventions such as sentence construction modeling and guided practice (e.g., Pennington & Rockhold, 2018) also have been effective. Technology also has been a commonly used approach to teach writing skills to students with CLN in areas such as story writing (e.g., Schneider, Codding, & Tryon, 2013), name writing (Moore, Anderson, Glassenbury, Lang, & Didden, 2013), and spelling (e.g., Kagohara, Sigafoos, Achmadi, O'Reilly,

& Lancioni, 2012). One particular computer-based intervention called FirstAuthor also was found to increase writing quality, topic diversity, and new and unique words in students with a variety of CLN when compared with students who simply engaged in prompted writing (Asaro-Saddler, Muir Knox, Meredith, & Akhmedjanova, 2015; Sturm et al., 2011).

UNDERSTANDING WRITING INSTRUCTIONAL PRACTICES THROUGH IMPLEMENTATION SCIENCE

As educational systems engage in scaling up innovative research and standards-based writing instruction for students with CLN, it is important to understand stakeholder perspectives (Fixen, Naoom, Blasé, Friedman, & Wallace, 2005) at every level (e.g., upper-level state and district administrators, principals, teachers, paraprofessionals, students, and families). Although the development of federal educational standards provided a foundation for new curricular expectations for students with CLN, broad-scale educational change requires a shared vision across consumers and does not occur quickly or easily. Given that writing instructional practices for students with CLN continue to be splintered or nonexistent, educational systems are in the exploration and adoption stage of implementation science where stakeholders are making decisions about programs that can be implemented to meet standards for writing. Understanding stakeholder involvement, readiness, and buy-in is a critical component across this implementation process and provides an understanding of the commitment to innovation by members of the community (Fixsen et al.). Leadership is important in the implementation of innovative practices across all settings (Aarons, Ehrhart, Farahnak, & Hurlburt, 2015), including education. Upper-level administrators in educational systems are a core stakeholder in programmatic implementation as their leadership can create a shared vision and marshal support for executing that vision as well as provide resources

to facilitate successful implementation. Administrators possess a broad lens regarding how educators they supervise perceive innovation and programmatic changes.

Understanding teacher perspectives as consumers within an educational system aids in identifying barriers to readiness (i.e., an organization having an awareness of the need for improvement), adoption (i.e., an organization choosing to make use of an innovative program), and sustainability (i.e., continued effectiveness and long-term survival of an innovative program) during implementation of new programmatic initiatives (Fixsen et al., 2005). Many teachers are reluctant to alter practices due to a history of poorly implemented initiatives; therefore, successful change hinges on school staff members seeing the need for change, followed by internal supports that optimize fidelity of implementation (Haynes Smith, Lambert Crim, & Bos, 2018). The field of implementation science provides researchers and educators a systematic way to understand factors involved in successful implementation of programs and to close the gap between scientifically-based practice and what is actually done in schools (Fixsen et al.). When systematically scaling up curriculum changes, researchers in implementation science seek to understand barriers and facilitators of readiness, adoption, and sustainability. As a way to understand barriers to adoption, they have also begun to examine human behavior by researching personality traits of individuals who are novelty-seeking (and thus more open to change) or resistant to innovation (Heidenreich & Handrich, 2014).

This examination of individual personalities aids in understanding teacher perspectives when innovative curricula are introduced. But it is ultimately the responsibility of administrators because, though teachers are implementers of innovations and policies in schools, administrators are more responsible for what those polices and innovations entail and how they are brought to scale. It is important to know what administrators think and how they view the teachers they supervise as they try to adopt new practices.

LEADERSHIP ROLES OF ADMINISTRATORS IN PROGRAMMATIC IMPLEMENTATION

Successful change within educational systems is highly dependent on the leadership of administrators including state-, district-, and school-based (i.e., school consultants and principals) stakeholders. Administrators are responsible for supporting implementation of standards and practices and ensuring that they are providing teachers with the necessary supports they need to be successful (National Policy Board for Educational Administration, 2015). They are responsible for making data-driven decisions about curriculum and programs based on how they will impact student growth (Bottoms, 2001; Council of Chief State School Officers, 2015). Administrators also are responsible for ensuring that all students, including those with CLN, are well educated and receiving appropriate supports and programs (National Policy Board for Educational Administration); specifically, they should be able to recognize whether teachers are using appropriate curricula, programs, and practices to improve their students' literacy skills (Bottoms, 2001). One way to do that is to be informed of what is happening in the classrooms in their buildings. A recent survey indicated that 83% of principals believe it is important to monitor teachers' work in the classroom, both through formal evaluations and informally through classroom visits (Simkin, Charner, Saltares, & Suss, as cited in the Wallace Foundation, 2013). As such, it is helpful to understand administrator perspectives of program and curriculum implementation. To our knowledge, no other efforts have explored administrator perspectives on writing instruction for students with CLN.

The purpose of this project was to engage in didactic interviews with administrators about writing instruction and students with CLN (e.g., ASD, intellectual disabilities, physical disabilities, and severe multiple disabilities) and identify knowledge, attitudes, and perceived barriers held by educators according to their administrators' perceptions.

This study will assist researchers and educators by providing additional information that may enhance readiness, adoption, and sustainability of innovative writing instructional practices for students with CLN. Our research questions were as follows: Through the broad lens of school system administrators, what are the knowledge, attitudes, and perceived barriers to writing instruction for students with CLN among educators they supervise? What factors, from an administrator's viewpoint, influence adoption and sustainability of innovative or improved writing instruction for this population?

METHOD

Setting and participants

A convenience sample of participants was recruited from educational administrators in the Midwest and the Southeast. Six administrators volunteered to participate, but data from two were excluded for reasons noted later. The four participants' professional titles were district coordinator, supervisor, consultant, and statewide director. The participants from Midwestern County 1 and Midwestern County 2 (see Table 1) were within the same Midwestern city. The number of years in education for the participants ranged from 19 to 39 years. Collectively, the four participants worked in three regions that included more than 380,000 students in special education.

In alignment with qualitative research practices, this pilot study utilized purposeful, criterion-based sampling to derive information-rich cases (Palinkas et al., 2015). Inclusion criteria for the participants were identified to obtain varied administrator perspectives. Because we felt it was important to initially provide a "bird's eye" view regarding the knowledge, attitudes, and perceived barriers to writing instruction for students with CLN, all participants were upper-level administrators serving at the state or district level. To understand factors that influence readiness, adoption, and sustainability, each of the

Table 1. Participant background and demographics

	Midwestern County 1 ($n = 2$ Participants)	Midwestern County 2	Southeastern State
Total students	290,000	150,000	2,756,944
Number of students in special education	40,000	19,000	321,477
Number of students on free and reduced lunch	7,000	6,000	1,851,959
Setting	Urban and suburban	Suburban	State

participants also had to serve in an instrumental role in choosing, initiating, and scaling up writing initiatives that required teacher recruitment and ongoing professional development. These participants could then provide insights into overall implementation of writing instruction, perceived teacher traits, system barriers, and the training needs of educators.

Procedure, data collection, and data analysis

A qualitative research design was used to understand, from an administrators' viewpoint, educators' knowledge, attitudes, and perceived barriers toward writing instruction for students with CLN. An inductive approach, without an a priori agenda, was used to allow themes to emerge from the data (Thomas, 2006). Data were obtained through participant phone interviews, which were each 45–60 min in length. Each participant was asked 10 interview questions that targeted perceptions about writing and writing instruction; teacher personality traits; barriers to instruction; readiness, adoption, and sustainability of innovative practices; and teacher professional development, and their responses were transcribed. A total of six semistructured interviews were conducted.

During the interview, participants were given Heidenreich and Handrich's (2015) descriptors to understand personality traits to describe two types of teachers. The first type of teacher demonstrates a novelty-seeking personality, is the first to volunteer, and is classified as an "early adopter." The second type of teacher, classified as "resister," is one who resists innovation and is usually one of the last individuals to adopt a program and also expresses disinterest or distrust in programmatic innovation. During the interviews, these descriptors were provided as a way for the participants to classify the teachers with whom they worked. Post-interview preliminary analysis revealed that two of the six participants did not meet inclusion criteria because they did not have any innovative writing initiatives within their districts. Results obtained in the initial questions with these participants also revealed that they did not appear to have a solid understanding of their teachers' attitudes, beliefs, or instructional practices. As a result, data for this study included four rather than six participants.

Transcripts were cleaned so that only aspects related to the research questions were used. Statements from the participants were prepared for analysis by entering each response into a table and grouping them by question. The first and third authors read through all the data completely and thoroughly without coding to reflect on the overall meaning and get a general sense of the complete data set. General ideas or topics from the participants' statements were identified, and categories were proposed, discussed, revised, and refined. The first and third authors made a list of themed topics using descriptive

wording (e.g., writing as communication, barriers to instruction). Segments of the interview data were coded using the themed, categorical one- to three- word descriptors to look for patterns within the data by these same authors. Contrasts and comparisons were made between patterns, and new themes within the data were identified as needed. Themed segments were then clustered together to interpret the meaning of the patterns. To improve the trustworthiness of the data, the third author reviewed and coded all transcripts and final categories were agreed upon among all authors. In the reporting of results, Questions 3 and 4, as well as Questions 5 and 8, were collapsed, as it was revealed in the data analysis that the constructs were related (see Table 2 for a list of interview questions).

RESULTS

A description of the overall patterns in the data is provided. Participant statements that illustrate core concepts are also shared for each theme.

Readiness for change

Participants were asked to report teachers' readiness for change of writing instructional practices for students with CLN and rate this readiness on a scale of 1–10, with 1 being not ready and 10 being very ready. Three of the four participants placed their rankings into two groups, those teachers trained in a comprehensive writing instructional program for students with CLN and those who were untrained. For populations in which teachers

Table 2. Participant interview questions

1. On a scale of 1–10 (1 being not ready and 10 being very ready), how much would you say your teachers recognize that change is needed for their writing instructional practices?
2. Tell me about your perceptions of teachers' attitudes toward writing instruction for students with complex learning needs?
3. Do you believe that teacher attitudes vary based on student population (e.g., ASD, moderated ID, physical impairments, severe multiple impairments)? If yes, please describe.
4. Tell me about teacher perceptions of student capabilities as writers based on population. Do these perceptions vary based on population (e.g., ASD, moderated ID, physical impairments, severe multiple impairments)? If yes, how do they vary?
5. What do you perceive as the biggest barriers to adoption of a new intervention or curriculum (writing, reading, communication) within your district or state? What are the biggest barriers to adoption by an individual teacher? Is adoption impacted differently by student population (e.g., ASD, moderated ID, physical impairments, severe multiple impairments)?
6. When engaging in district-wide implementation of a program or curriculum and seeking teacher adoption, what are the teacher traits or characteristics of the first 20 teachers, who typically demonstrate high readiness (e.g., during Phase I or pilot), and the final 20 teachers (e.g., during final phase implementation), who often demonstrate high resistance?
7. During training, what frameworks or approaches are most effective with teachers who demonstrate high readiness? During training, what frameworks or approaches are most effective with teachers who demonstrate high resistance?
8. What do you perceive as the biggest barriers to sustainability within your district or state? What are the biggest barriers to sustainability by an individual teacher? Is sustainability impacted in different ways based on student population?
9. Describe a program in your district or state that has been scaled up effectively and sustained. Can you describe the infrastructure or model for doing so? What worked best (e.g., training models, peer mentors)? What didn't work?
10. Is there anything I haven't asked you that you think I need to know about writing instruction for students with complex instructional needs in your district or state?

Note. ASD = autism spectrum disorder; ID = intellectual disability.

were trained in using a high-quality comprehensive instructional program, participants believed that their teachers' readiness to change their writing instructional practices was at a 5–9 on the scale. Untrained teachers were reported to be a 0–5 on the scale across the entire district or state. The two participants who reported the highest ratings for both the trained (ratings of 7–9) and untrained (rating of 5) teachers were from the same region. These participants' perspectives may be different from the others as they had the highest concentration of teachers trained in using a comprehensive writing curriculum (i.e., >100 classrooms).

Participant 3 reported that the Common Core State Standards and the Dynamic Learning Maps alternate standards have been a catalyst for change because school districts and their educators are now required to provide writing instruction that is based on the general education curriculum. At the administrative level, there was a new awareness that a change in practice was needed and that school systems needed to "have something going on." This participant also shared that educators need to believe that students with CLN are "capable of acquiring these skills." She went on to elaborate that the educational staff was not having students communicate using augmentative and alternative communication and said that they needed to "support the belief that all can communicate, then all of the students can write" (Participant 3).

Need for Change

What needs to precede change is discomfort. Teachers have to have an awareness that you need to change and a belief that change is possible … and a belief that makes sense with your students. You also need to believe that you are capable of acquiring those skills. The Common Core State Standards (CCSS) and Dynamic Learning Maps (DLM) [Alternate Standards] has led some to realize that change is necessary. (Participant 3)

Attitudes toward writing instruction

Writing as a Fine Motor Skill

I think all my teachers would have said they are working on writing, but it was handwriting and fine motor. They would have defined that as writing instruction … working on fine motor and writing instruction, it's not the same thing. (Participant 1)

Participants were asked to tell about their perceptions of teachers' attitudes toward writing instruction for students with CLN. Participants had a shared perspective indicating that teachers either were providing no writing instruction or viewed writing instruction as work on fine motor skills, as illustrated in the aforementioned quote. Before, if literacy instruction was happening, it was with reading as the instructional priority; writing was reported to be "lumped in" with English Language Arts (Participant 2). Writing was not viewed as communication, and it was not an instructional priority. For example, Participant 2 believed that writing is at the bottom of any list that teachers have for instruction and stated that writing is really hard to teach and harder to adapt than mathematics and reading. She elaborated, saying that teachers struggle to perceive writing instruction as possible and felt lost knowing what to do because they think of writing as a high cognitive skill that requires solid executive functioning.

Time and Value

I don't believe that the overwhelming majority of our teachers spend any time in writing instruction. I believe that they use writing as part of an integrated core curriculum, but they don't value writing for the purpose of communication for our students enough to make a place for it in their daily schedule … that's what we are working toward. (Participant 4)

Participants also shared that when educators received professional development

on a comprehensive writing instructional program, these educators shifted their perceptions to view writing as communication for their students and began to make it a priority. Participants 1 and 2 talked about this perspective changing in their teachers following training in a comprehensive writing curriculum. Teachers began to understand the distinction between work on fine motor skills and providing writing instruction that focuses on composing as a form of communication. Participant 2 shared that teachers implementing the comprehensive writing program are noting students, who often present with complex communication needs, now have a "tool to communicate what they want." Writing is now viewed as important; these teachers make writing every day a priority, are assessing student writing ability, and are identifying writing goals for their students.

Perception of student capabilities

> **The Self-Fulfilling Prophecy**
>
> *I need them to get it in their brains that these kids need this. They need to do this every day. Typical kids get it every day. What makes us think we can do it once a week? How can we progress with them if it's only once a week? It becomes a self-fulfilling prophecy, because they did not learn. Why not daily writing for these kids?* (Participant 4)

In response to the question regarding perceptions of student capabilities, Participant 2 said that "a lot of teachers believe they can't teach writing because their students can't write." Participant 3 supported that belief stating that teachers often "do not have high enough expectations" for their students with CLN. Participants had a shared perspective that educators need to move past their restricted perceptions about ability and teach all students. Participant 3 captured it well by saying, "Perception drives expectations, which drives achievement." Driving teachers toward a perspective that all students

"have a way to write is a work in progress" (Participant 4).

> **Student Capabilities**
>
> *They have pre-set ideas of what students can and cannot do based on psychological evaluations from tests that cannot possibly test these kids ... so it's a catch 22.* (Participant 4)

Teachers' attitudes and perceptions of students' capabilities as writers were reported by the participants to vary on the basis of population (e.g., moderate intellectual disabilities, ASD, severe speech and physical impairments, severe cognitive impairments). Participant 4 said, "Without question! It's very tied to what teachers perceive as student ability and student cognitive level," and went on to share that it's a tough thing to break because it is pervasive—not just in writing but in all academics. Overall, students with greater cognitive and physical impairments were consistently perceived by educators as less capable; therefore, they were less likely to receive purposeful and authentic writing instruction and meaningful writing opportunities. Initiating writing instruction with students who are older (i.e., middle school students) and more capable (e.g., "cross categorical") made more sense to educators, according to Participant 1. When providing writing instruction, students with moderate intellectual disabilities were more likely to be perceived as different [from their general education peers], more likely to stay at a certain [writing] level for a number of years, and more difficult to teach. Teachers have a hard time seeing past severe disabilities that may include cognitive, physical, sensory, and behavioral challenges and shared that it is hard to see them as capable in another way because whatever they have going on is so extreme (Participant 3). Related to this challenge, it was reported that teachers of students with the most severe disabilities believe that there is no writing curriculum that is truly designed for their students (Participant 1).

Participant 1 indicated that, as an educational system, we need to break through the idea that writing is not for them; she elaborated by saying that when teachers provide these students with a comprehensive writing program that is implemented with fidelity, they are "stunned with how their kids progressed." When teachers implement a comprehensive writing program and experience success that they are "amazed" at student capabilities and these positive outcomes have fostered more conversations about writing in classrooms for students with CLN (Participant 1). Having a curriculum gave teachers a "clear trajectory where they could take a look and identify students who needed to explore more with letters" (Participant 2). Implementation of the writing curriculum accomplished multiple goals: Teachers have a better understanding of why writing is important, and students with complex learning needs (e.g., ASD) who lack traditional writing capabilities are being included in instruction. Use of a comprehensive curriculum started important conversations about accommodations and thinking about what writing is for these students (Participant 2). Educator perceptions also become more positive because the curriculum changed the opportunities provided to them and teachers say things such as "I never knew my student liked cats" or "I never knew he liked pop," because they never talked about it. Teachers now see writing "as giving students a voice."

Beliefs About Writing

I would say that I have lots of people in the beginning say they don't believe it. If they do it, and do it with fidelity, they are stunned with how their kids progressed. (Participant 1)

Barriers to adoption and sustainability

Participants were asked what they perceive as the biggest barrier to the adoption of a new intervention or curriculum at both the state/district level and the teacher level. Cost was reported as a consistent barrier. Administrators shared that educational systems are not accustomed to investing in professional development of special education teachers or in curriculum materials for students with CLN. Participant 2 said a big part of adoption is "getting people the resources—It is expensive." These administrators also believe that future purchases of writing curricula will only happen when educators believe writing has merit.

The concept of "buy-in" and "drawing others on board" was reported to be a potential barrier because attitudes and perceptions impact readiness and adoption (Participant 2). According to Participant 2, teachers need to "try a writing curriculum and see what happens; they need to suspend their disbelief to try it, and to let others know what worked and what didn't. If it is not working, explore what can be done to make it work."

Lack of administrator support also was reported to be a core barrier. Participants viewed administrator support as a key factor in readiness, adoption, and sustainability. On-site administrative support was viewed as key and that the principal's involvement was "make or break" in successful implementation (Participant 3). As Participant 2 stated, "We need to have 'higher ups' on board to attain successful implementation." The principal needs to believe in every school initiative, hold teachers accountable, and give new programs attention and support. Participant 4 reported similar beliefs, sharing that a principal who was an early adopter changed her perceptions about writing instruction for students with CLN. This principal then spent money on professional development and curriculum materials. She started with multiple teachers and set up blocks of time where everyone, including the paraprofessionals, was taught to use the comprehensive writing curriculum. The overall message: Changing the perception of the leader in the school made writing a priority. To do so, the school leader needs to believe in the students' abilities, invest in people, provide time for instruction, and provide materials to make that change.

Participant 3 shared that "better learning opportunities for professional development" are provided in general education than in

special education. She elaborated saying that special education teachers "do not have time built into their day" or school year for professional development days and professional learning communities where educators have a "network of teachers" they can learn from and obtain and provide support. A school-level infrastructure where committees work together during implementation would be beneficial. In addition to professional development, teachers need someone checking in from the top level and providing support. If "everyone has skin in and is investing in the game, they'll [teachers will] be good. If someone isn't passionate, then it'd be a problem" (Participant 3).

Teacher Communities

In my own program, I think the break-down [in writing instruction] can be when teachers don't get to come together and discuss and talk about the program, and when there is a barrier. Sometimes teachers run into a problem and they say it isn't working anymore, and you've only got some many hours in a day and I'm not going to waste my time with something that isn't working anymore.... Having to say it is a priority and not giving up ... working together to solve it and figure out how to make it work. (Participant 2)

Another barrier was allocation of time for writing instruction during the day. Teachers perceive that they "don't have time to waste," so if they believe their students are not capable, they will not make time for writing instruction (Participant 4). Participant 3 identified a related constraint, stating that teachers of students with CLN often have many initiatives across a lot of academic areas. Participant 3 said that implementing one additional initiative with this group of students can be a challenge.

Participants reported that a key barrier to sustainability is turnover at several levels within the educational system. Participant 1 described a leader for the entire county under whom program initiatives are identified, funded, and overseen, who has both vision and passion. This leader's departure would have a significant impact on program initiatives. Likewise, turnover of knowledgeable principals, teachers, support professionals (e.g., speech–language pathologists), and paraprofessionals has a big impact on sustainability. Participant 4 believes that "sustainability is absolutely teacher driven" and elaborated saying that if a teacher is being successful, and "everyone is enjoying it, they cannot be stopped." Teachers stop when there is no success.

Teacher isolation, especially in rural areas, was reported as a core barrier by all four participants. When comparing special education to general education teachers, "It's not like they have three to four other fourth-grade teachers" to collaborate with during program implementation. As a result, there is a "lack of ongoing communication" among special education teachers (Participant 3). Participant 2 agreed: "Many people feel like they're on an island with a tough kid, but it turns out that 30 miles up the road a similar kid is struggling too—eerie how similar they are." Participant 4 said that special education teachers need an infrastructure to support them, sharing that "there are lots of rural districts where they may be the only teacher in the district. We certainly have places where they are the only [special education] teacher in the school." She went on to hypothesize how technology and the Internet could provide a mechanism to support these teachers through Web-based support groups where questions could be posed and responses offered.

Perceptions About Students

Perception! Perception! Perception! People don't believe our students can, so we don't spend the money to train our teachers or to purchase curriculum and it all goes back to perception. If we believe our kids can't, why would we spend money? (Participant 4)

Table 3. Traits of early adopters and resisters

Early Adopters	Resisters
Confident and demonstrate leadership skills (e.g., work on committees)	Low energy
"Out-of-the-box" thinkers with a "can-do" attitude	Have a rigid, "old-school" mentality
Believe that writing is communication; like innovative teaching approaches and materials; enjoy collaborating with others	Perceive that instruction for students with CLN should stay the way it is and focus on life skills
Like innovative approaches and materials to teach literacy and enjoy collaborating with others	Reading and writing are not within their instructional scope
Demonstrate a willingness to learn and are always seeking resources to improve their teaching	Prefer to stick with old teaching methods
Risk takers who are not afraid to fail	Fear failure
May assume a voice within the educational community that can diffuse the power of the "quackers"	May present as "quackers" who have the potential to take down a new initiative.

Note. CLN = complex learning needs.

Teacher traits

Participants were asked to describe the traits of teachers who are early adopters of new programs and those who are resisters of program change. Results shown in Table 3 illustrate clear differences between the two groups. Participant 1 shared that she thought the early adopters versus the resistors would be separated by experience—with teachers having 25 years plus being the bigger resisters and those under 15 years as the most likely early adopters—but found this was not the case. She offered that "it is more about the teachers who are into curriculum" and said some of them are "curriculum gurus as a hobby." When presented with a comprehensive writing curriculum, these teachers who are early adopters "love" the new challenge.

Early Adopters

They are engaged in academic instruction. They believe that the instruction that goes on in their classroom has just as much value as for their non-disabled peers. That's really a big piece of it. They don't see their children as lesser than. They absolutely believe their kids can go out in the world and have lives, and contribute to the world as people. They don't underestimate students. They are different, but not less than. (Participant 4)

An early adopter is an "out-of-the-box thinker" who "likes doing different things if they can make it fun for the kids" (Participant 1). These teachers "want to improve their practice and are looking for resources; are fearless and not afraid to try something, and if it doesn't work they will try something else." Not only these teachers enjoy trying new things with students but also "quick adopters are folks (leaders) who serve on a lot of committees. They like working with others, and want to work with collaborators who like doing mass programs to improve the school" (Participant 2). These teachers are also willing to learn—they are not afraid of new approaches, difficult things, failing, or exposing themselves (Participant 2). As Participant 3 shared, an early adopter "holds themselves to high expectations" and has "high expectations for students." In addition to very high expectations, early adopters are "very organized and they are teaching bell to bell with no down time" (Participant 4). Participant 4

also shared that early adopters are "very confident teachers—they know what they are doing is valuable."

Resisters

Teachers that do vs. those who don't— the teachers that don't [provide instruction] believe that we are being unkind to our students by expecting these skills from them. Their lives should be happy, they should enjoy themselves, and never have any failure. A principal will boast "Oh, but they are so good to their children," I need to talk to them about what good means. (Participant 4)

Participant 4 shared that teachers who do not provide writing instruction to students with CLN "believe that we are being unkind to students by expecting these skills from them" and that students' lives should be happy, enjoyable, and never have failure." She elaborated that these resistors have low expectations for these students and wondered if the reason they do not embrace writing instruction is because they do not feel competent as teachers. Related to teacher competence, Participant 3 perceived resisters as teacher who "bring unproven prejudice to each task" and "operate in a world of fear of failure," thus continuing to use what is familiar. She shared that it is easier to "dismiss and disrespect than to try and fail." Participant 4 reflected further about teacher competence within the resistors stating, "If you are not a good teacher you will be placed in a classroom of students with significant disabilities because it is perceived that you can do less harm—We fight that all the time . . . . We are given teachers who are unmotivated or who don't want to be there." Participants 1, 2, and 4 discussed that the teachers who are resistant often focus on life skills rather than academics. Participant 1 elaborated, describing resistors as having a "solid, rigid point of view" where they believe center-based schools "exist for life skills where the emphasis is on social hygiene and work skills."

Effective approaches for implementation

Participants shared that programmatic implementation is most effective when there is a leader who creates a shared vision across a district, county, or state. Participant 2 stated, "I have a vision for everyone to use this [comprehensive curriculum] and have a rich dialogue around writing." Participant 1 said that during program implementation, there "isn't quite large enough [effort] to make traction unless you have a great director." Without directors sharing in the vision and taking the right steps, a program could go anywhere and will not have successful adoption and sustainability. As an administrator, Participant 3 shared that this vision requires asking questions such as "Is what you are doing making a difference?" and "How are these districts going out and reporting progress?" She further described that school districts need data that show what you are doing is successful and making a difference.

Professional development was reported by participants to be a necessary component for all phases of implementation—readiness, adoption, and sustainability. Participant 4 also shared that successful program implementation and professional development help teachers make shifts in attitudes, perspectives, and knowledge. She described how her vision is developed for early adopters and the resisters. For early adopters, she conducts pretraining surveys to find out what teachers are already doing with writing instruction, to identify what students are doing, and to focus on how she can bring those teachers to the next level. Professional development for the resisters would require spending "more time on the importance of writing and how writing crosses over all areas of our lives." She added that teachers who are resistors would benefit from professional development activities that help them make materials and get organized to start a new program.

Participant 3 shared that when "rolling out" a new writing program, multiple sessions are needed over time for teacher professional development and that teachers need ongoing

external support and frequent meetings with administrators and job-embedded coaches who provide feedback and ongoing opportunity for discussion. Teachers need "people side-by-side" during implementation to be successful. She elaborated, stating that, with teachers "you have to be so explicit and there has to be so much accountability" (e.g., assignments to collect data and videos of his or her instruction and self-rating overall performance). During professional development, teachers benefit from testimonials from peers and real-life examples (Participant 2). Participant 2 elaborated saying that "showing videos and actual evidence of working in real life is a big one" and "hearing from colleagues who are doing it."

Teacher Professional Development

One percent will do it if you just do a training. Even the best people need quite a bit of support. Most people need a lot of support. (Participant 3)

DISCUSSION

This pilot research provides a preliminary understanding of potential barriers and facilitators that result in adoption of innovative practices in writing instruction for students with CLN via changing attitudes and perspectives of special educators. Several important themes emerged from the interview data including readiness for change, attitudes toward writing instruction, perceptions of student capabilities, barriers to adoption and sustainability, teacher traits, and effective approaches for implementation.

One significant finding was that educators either were providing no writing instruction or viewed writing instruction as work on fine motor skills, at least according to the administrators we interviewed. Unfortunately, this is in line with other research that indicates that students with CLN are often excluded from contextualized literacy instruction (Carnahan

et al., 2012; Ruppar, 2015) and that the focus of instruction is often strictly on the mechanics of writing such as letter formation and fine motor skills (Asaro-Saddler et al., 2017). This perspective could be because teachers are not comfortable teaching writing to students with CLN. In one study, for example, 85% of secondary English teachers indicated that they struggle to teach writing well to students with ASD, identifying this population of students as those with whom they have the most difficulty teaching writing (Casey, Williamson, Black, & Casey, 2014). We also found that educators believe that "writing is really hard to teach" and "difficult to adapt."

Another potential reason for the lack of instruction in writing is teachers' perceptions of their students abilities. Results from this study indicate that the administrators believe that teachers have low estimations of their students' abilities and do not believe they are capable of learning to write; students with greater cognitive and physical impairments were consistently reportedly perceived by educators as less capable. Unfortunately, this is not unlike other findings indicating that educators do not believe those with complex needs can acquire literacy skills such as writing (Keefe & Copeland, 2011). Although recently some teacher attitudes have shifted (Ruppar, Gaffney, & Dymond, 2015), many teachers may still believe that this population is unable to use writing as a means of expression.

Results also indicated that teacher education regarding writing instruction occurs infrequently. This finding supports research that teachers in all grade levels for students both with and without disabilities have received minimal professional development in how to teach writing (e.g., Graham, Capizzi, Harris, Herbert, & Morphy, 2014). Unfortunately, without such efforts, educators' readiness to provide writing instruction for students with CLN is very low, and student success often depends on quality of professional development received on the topic (Hall, Hutchison, & Mayer White, 2015). In order for students with CLN to be effective

writers, their teachers need to be given appropriate professional development opportunities (Keefe et al., 2018).

In contrast, results indicated that when teachers did receive professional development on writing, their perceptions shifted and they began to make it a priority. Teachers in this study were reportedly "amazed" at what their students could do. This perspective supports prior research in which teachers reported that their participation in professional development changed their expectations about students' capabilities (Ruppar et al., 2015) and that interventions using evidence-based practices can be effective with students with CLN such as those with ASD (Asaro-Saddler, 2014).

Among the barriers to adoption of writing programs identified by the participants in this study, perhaps the most commonly shared was administrator support. Participants indicated that programmatic implementation is most effective when there is a leader who creates a shared vision. This vision is critical, as administrators play an essential role in establishing the culture of literacy for all, sharing that message, and helping create change (Keefe et al., 2018). Principals serve an important role in changing instructional performance that improves student outcomes by creating an atmosphere of trust and patience, valuing teachers, building relationships, fostering risk taking, and modeling ongoing learning (Quinn, 2002). Administrators are also responsible for purchase of curricula and provision of professional development, as well as supporting the allocation of time throughout the day for writing, which is in alignment with additional barriers identified in this study. When administrators do not provide support, teachers may feel isolated and alone (Ruppar et al., 2015), as reported by one participant in this study. It is imperative that administrators support writing instruction for students with CLN.

Implications

When engaging in programmatic implementation, core outcomes should reflect changes in the knowledge and skills of educational stakeholders, changes in the culture and the organizational structure (e.g., values, policies, and procedures) that support successful change in stakeholders, and changes among consumers (i.e., students) and partners (Fixsen et al., 2005). Results from this study have implications for practice regarding the implementation of comprehensive writing instruction for students with CLN. A conscious awareness of barriers (e.g., lack of access to curricular materials and to time allocated in the day for execution of a quality writing program) is needed when engaging in program implementation, and solutions must be identified. Specifically, an understanding of stakeholder perspectives within the field of implementation science where "exploration" and "adoption" are preliminary factors to consider to enhance acceptance of innovative curricula (Fixsen et al.). For example, Participant 4 suggested that for teachers who are isolated in rural areas, a central question that should be asked is, "How can we use technology and the Internet to facilitate support for these teachers?" Administrators should survey their educational teams to gain an understanding of the barriers to implementation and how they may remove or reduce some of those barriers.

As indicated by Participant 4, one way to reduce barriers may be the use of technology. Technology has allowed multiple stakeholders to collaborate and create a community during implementation of an innovative program. One option for using technology to support distance learning, for example, has been videoconferencing. Research shows that when distance and time constraints are barriers, videoconferencing can be an effective way to build upon one-time workshops and create professional learning communities that bring together educators who teach similar populations or content areas (McConnell, Parker, Eberhardt, Koehler, & Lundeberg, 2013). These researchers found that videoconferencing can provide similar benefits to face-to-face meetings and support teachers in sharing resources, providing new perspectives and practical solutions, reinforcing accountability, and developing professional friendships.

Leaders play a critical role in the implementation process by setting up positive team functioning, facilitating inclusion, and fostering a climate for innovation (Aarons et al., 2015). Program implementation will be optimized when there is an administrator who creates a shared vision for an educational community through his or her leadership. This shared vision has been identified as a co-creative capacity, where there is a shared body of usable knowledge and clear stakeholder roles, and is essential to create an infrastructure that fosters sustainability (Metz, 2015). During implementation, skilled leaders provide feedback, encouragement, and consistent communication (Aarons et al.). Results of this study showed that principals are thought to provide critical on-site administrator support that is "make or break" in successful implementation in new school initiatives. Principals should set high expectations for all stakeholders, provide opportunities for collaboration, foster leadership in staff development, and create opportunities for student excitement and engagement (Quinn, 2002). Successful principals who combine transformational and instructional leadership strategies can attain both direct and indirect sustained improvement (Day, Gu, & Sammons, 2016).

Through their leadership, administrators address barriers in advance and establish the framework for training and ongoing systematic supports. Awareness of the teachers who are "resisters" is needed to understand potential negative impacts on individual and group adoption and to begin to shift their attitudes and beliefs. It is also critical that teachers who are "early adopters" be empowered to help drive effective program implementation through their leadership and serve as mentors for the resisters.

Positive teacher perceptions about writing instruction and students with CLN were reported to be key to successful implementation. Extensive efforts are needed in the future to begin to shift educator perceptions about students with CLN, including those who are diagnosed with ASD. The majority of these educators are perceived as having restricted beliefs about what constitutes writing instruction (i.e., fine motor activities) and have limited expectations for writing for students with CLN. Teacher preparation programs should prioritize literacy instruction for all, and in-service training should be provided for those who lack knowledge about and comfort with supporting students with CLN in their classrooms (Keefe et al., 2018).

Although a full-day initial professional development workshop or meeting was reported to be a critical starting point for program implementation, additional learning opportunities are needed after teachers begin implementation to support ongoing activities, address questions, and foster sustainability. Extensive administrator support and coaching of teachers in the classroom, paired with explicit expectations of those teachers, are essential, and professional communities of learning should be developed for peer-to-peer support once programmatic capacity makes that possible. Teachers need ongoing reinforcement to know they are on the right path and to have specific questions answered along the way when they perceive a barrier. Such supports may be especially true for the early adopters; if educators become frustrated or unsure, they are at risk for abandoning the new program. Professional development needs to provide teachers with supports that translate into effective classroom practices and should occur multiple times over an entire school year so that educators can identify and refine specific skills that they continue to find challenging and better understand how to apply these skills in the classroom (Bifuh-Ambe, 2013).

Limitations and future research

There are some limitation to this pilot study. First, the sample size was not large; additional patterns and themes may emerge with the addition of more participants. Although all participants were upper-level administrators who were engaged in programmatic change of writing practices within their region, they may have reported different perspectives because of their geographic

range (i.e., district or state). These varied perspectives may also be viewed as a strength, as they represent a range of beliefs across different educational systems. Future studies should attempt to include a greater number of participants from a variety of educational settings. A second limitation is that the study data may include some bias because the four participants were all actively involved in implementation of new writing programs within their educational systems. Two participants were eliminated from this study because they were not engaged in implementation of new writing instructional programs and did not seem to have awareness of the writing practices of their special education teachers. Administrators who are not aware that change is needed, and who do not have programmatic change underway for their writing instructional programs, should be included in future research as they may provide different responses to the interview questions. If administrators are not aware that change is needed, interviews understanding their attitudes and beliefs are warranted. Third, there may be discrepancies between the administrators' reports about special education teachers writing instructional practices and beliefs and the actual beliefs of the special education teachers. This study sought to obtain the "bird's eye" perspective of administrators so that a range of types of teacher traits could be understood; however, because special education teachers are providing the writing instructional programs, they are key stakeholders. Future research should include qualitative interviews to ascertain special education teachers' beliefs about writing instruction for students with CLN. Fourth, future research could also be expanded to include interviews with other stakeholders in an educational team including school-level consultants, principals, speech–language pathologists, occupational therapists, and paraprofessionals, which will aid in understanding the knowledge, attitudes, and perceptions about writing for students with CLN and enhance the potential for success when scaling up comprehensive writing instructional programs. Further probing on how the specific characteristics of students with CLN contribute directly to the attitudes and perceptions of these stakeholders may also be helpful to see how they differ from school personnel who work with students with other disabilities or students who are skilled writers. Finally, qualitative research should be conducted that includes not only stakeholder interviews but also classroom observation of writing instructional practices for students with CLN. These observations would not only provide comparative information that can be triangulated against stakeholders' interview data but also provide deep insight into the roles and perspectives of these educational stakeholders in real-time classroom writing instruction.

As educational systems seek to create an environment that results in successful systemwide change in writing instructional practices for students with CLN, it is essential that all stakeholders be involved during all stages of the implementation process. Priestland and Hanig (2005) discussed the need to start with a small group of interested and committed stakeholders who serve as the core group of innovators who create a vibrant environment that helps an organization's ability for change to strengthen and be sustained. They went on to state that by the time an initiative is dispersed throughout an organization, stakeholders at every level will likely be ready to accept it. This study provides a first step in identifying the perceptions of a small group of stakeholders to understand how they might shape their respective environments to foster growth of the writing of students with CLN.

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