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Creating space for interactive dialogue during preschool circle time using play-based pedagogies and dramatic inquiry

Megan T Deeg (iD)**, Kathleen M Farrand
and Wendy Peia Oakes** (iD)
Arizona State University, USA

Abstract
In this study, we examined how preschool students with language delays engaged in interactive dialogue during regular circle time and dramatic inquiry activities. Using frequency recording of three preschool students' linguistic engagement and multimodal analysis of classroom video data, this article explores how these students produced social, instructional, and academic language as well as multimodal actions to engage in interactive dialogue with their teachers and peers. Overall, students exhibited higher levels of linguistic engagement during traditional instruction; however, multimodal analysis revealed the ways students engaged in interactive dialogue during dramatic inquiry was far more complex. We conclude that dramatic inquiry created opportunities for students to learn and produce academic language and corresponding multimodal actions while regular instruction provided students opportunities to practice social and instructional language. Our analysis demonstrates the complexities of how preschoolers with language delays use different forms of verbal and non-verbal language to share their personal experiences and content knowledge with others. In all, this study emphasizes the importance of considering both quantitative and qualitative data when trying to understand how preschoolers engage in interactive dialogue in the classroom.

Keywords
dramatic inquiry, interactive dialogue, language, multimodal, preschool

Process drama engages participants in a set of multimodal instructional strategies to explore and learn through imagined situations rather than performing a traditional play. In early childhood, process drama offers a means for developing the conversation, collaboration, and problem-solving skills of young children (Brown, 2017). Through dialogue and interactive play, students experiment with different identities and become a "head taller than themselves" (Vygotsky, 1978: 102). As students role-play, they begin to imagine themselves as, for instance, entomologists or marine biologists and thus step outside their traditional role as students.

Corresponding author:
Megan T Deeg, Doctoral Candidate in the Mary Lou Fulton Teachers College, Arizona State University,
1050 S. Forest Mall, Mail Code 5411, Tempe, AZ, 85287, USA.
Email: Megan.Troxel@asu.edu

Dramatic inquiry is a form of process drama in which teachers facilitate student learning by engaging them in active and dramatic strategies to take on various roles, explore authentic problems, and examine possible solutions to further their pedagogical understanding of a topic (Edmiston, 2014). This pedagogical method incorporates student interests and curricular goals to create imagined worlds that extend student experiences beyond the walls of the classroom through the imagination of play. Through dramatic inquiry, Edmiston (2014, 2017) explicates students begin to recognize the numerous perspectives that inform the decision-making process during this in-role exploration and engage in the Bakhtinian (1981) concept of dialogism (i.e. recognition of multiple perspectives) as they negotiate meaning through socially mediated and interactive dialogue. In this study, we use the term interactive dialogue to emphasize how students build upon the ideas of others as they negotiate meaning with their teachers and their peers in inclusive spaces, not only with their words but also with their actions and use of tools.

As students take on the perspective of another character in-role, "there are always two authoring voices present: I-as-myself choose particular verbal and non-verbal language with the intention of making meaning from the viewpoint of I-as-other" (Edmiston, 2014: 8). When students engage in this type of "double-voiced" (Bakhtin, 1981) verbal and non-verbal language, they extend, adapt, and shift their ideas to author a new understanding of a concept through interactive dialogue (Edmiston, 2014). In our view, providing students with experiences in which they can take on the viewpoint of another allows students opportunities to engage with language in ways they may not typically use when speaking or moving as students in an inclusive American preschool classroom, serving 3–5 year old children. Moreover, students who have language delays may benefit from dramatic inquiry instruction which encourages students to utilize verbal as well as non-verbal means of communication to create meaning.

Since dramatic inquiry aims to develop interactive dialogue among students alongside their teachers, this study extends the current body of literature on dramatic inquiry in the early childhood classroom by examining when and how preschoolers with language delays engaged in interactive dialogue during regular circle time and dramatic inquiry activities (Activities explained in further detail in the methods and findings sections). Additionally, we present the multimodal ways students participated during interactive dialogue to compare their interactions during the different types of instruction.

Speech and language development in early childhood

As children are exposed to different components of language such as words, sounds, images, and gestures, they begin to develop speech and language skills. Although not all children develop these skills at the same rate, they develop them in the same order. Babies will first begin to react to and mimic sounds before they attempt to produce words (National Institute on Deafness and Other Communication Disorders (NIDCD), 2014). By the time children reach preschool age, typically 3–5 years old, they can answer simple questions related to who, what, where, when, talk about their daily lives at home and school, produce simple oral sentences, listen and respond to simple stories, say most letter sounds, and name a few letters and numbers (NIDCD, 2014). However, some children encounter delays in mastering these skills in the typical timeframe which may lead to a diagnosis of a speech or language disorder.

Speech disorders relate to problems with how children articulate sounds and words and/or using appropriate voice and fluency when speaking (American Speech-Language-Hearing Association (ASHA), 2020). For instance, apraxia is a type of speech disorder in which children struggle to make sounds correctly (NIDCD, 2014). Language disorders, on the other hand, arise when a child struggles to understand or share ideas (ASHA, 2020). Specific language impairment (SLI) is a
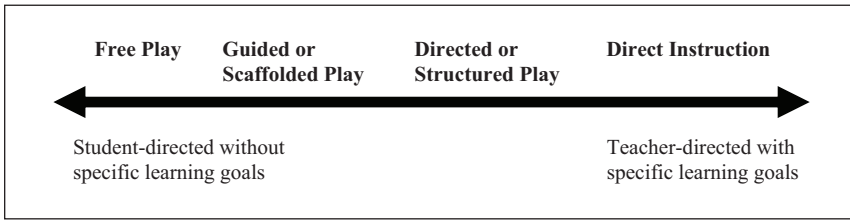
Figure 1. Continuum of play-based pedagogies.

language disorder in which children demonstrate a delay in reaching the typical language development milestones (NIDCD, 2014). Children identified with SLI may have trouble with receptive language (e.g. understanding the meaning of gestures, answering questions, following simple directions) and/or expressive language (e.g. sharing their ideas, using gestures, creating sentences, starting and continuing a conversation) (ASHA, 2020). Since children with SLI struggle to communicate through words, they may benefit from the use of multimodal resources such as images, artifacts, and gestures to support communication.

Play-based pedagogies

Play-based pedagogies provide opportunities for preschool students to engage in inquiry learning with the support of various multimodal resources and interactive activities. Research reveals students who receive play-based curriculum out-perform students taught using traditional curriculum on measures related to play, narrative, and oral language skills (Stagnittiet al., 2016). Additionally, preschoolers at risk for language delays acquired more targeted vocabulary through the use of play-based strategies than traditional approaches (McLeod et al., 2017) and improved their narrative retellings after receiving a small group intervention incorporating instructor guidance, visuals, objects, gestures, and active play-based strategies (Spencer and Slocum, 2010).

Unfortunately, "[t]he new age of early education mounts a false dichotomy between play and learning that forces teachers to choose between letting children play and teaching academic content (Kochuk and Ratnayaka, 2007; Viadero, 2007)" (Toub et al., 2016: 119). Free play, in which students have total autonomy over their playful learning has been criticized for not providing students with enough support to reach academic goals; however, direct instruction has been similarly criticized for being so hyper-focused on academic outcomes that the students have little to no control over the direction of their own learning (Toub et al., 2016; Wasik and Jacobi-Vessels, 2017; Weisberg et al., 2016). Guided or scaffolded play and to a lesser extent directed or structured play have been proposed as a way to balance the benefits and pitfalls of free play and direct instruction (cf. Toub et al., 2018; Toub et al., 2016; Wasik and Jacobi-Vessels, 2017; Weisberg et al., 2016). In guided play, the student directs their playful learning, but the teacher provides relevant scaffolding to ensure students meet specific learning goals. In directed play, the teacher provides more opportunities for student choice than direct instruction, but the teacher still controls the direction of students' playful learning in order to meet a content learning goal. Figure 1 shows a continuum of play-based pedagogies from most student-directed to teacher-directed.

Language and vocabulary learning through play

To better understand the challenges some students might face in producing appropriate language during content learning, we draw upon literature from the field of language learning. Jim Cummins

(1980) seminal work distinguished between basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP). BICS refers to the social language needed to carry out everyday conversations. For example, the language needed to ask to go to the bathroom. CALP refers to the academic language needed in school to conduct academic tasks. For instance, the language needed to explain the life cycle of a butterfly. According to Cummins (1980), students become fluent in social language much faster than academic language because social language relates to everyday life. McLeod and colleagues (2017) similarly revealed preschoolers struggled to integrate new vocabulary into conversation when the words were less connected to their every-day lives. Thus, to help students develop academic language skills, research stresses the importance of pre-teaching vocabulary necessary for students to grasp the major concepts of a lesson (Irujo, 2007). Moreover, providing students with opportunities to develop academic language involves a restructuring of traditional classroom interaction models in which the teacher does most of the talking; instead, the teacher should provide a balance between student and teacher talk to allow students to practice language (Anstrom et al., 2010).

Play-based approaches, in which the student directs inquiry learning but the teacher scaffolds language and vocabulary use by asking questions, extending student responses, providing feedback, and utilizing wait time, assist students with developing less familiar academic language (cf. Wasik and Jacobi-Vessels, 2017). Toub and colleagues (2018) study of the use of adult-supported play in vocabulary interventions demonstrated that preschoolers' vocabulary, receptive, and expressive knowledge significantly improved in both guided play and directed play conditions. Moreover, free play activities during learning centers allow young children to naturally engage in roleplay where they can practice different types of language skills. For instance, Peterson and Altidor-Brooks (2018) found 5-year old children used a variety of cohesive ties and facework strategies during imaginative play at the sand center in order to share information, adjust the situation, and express their feelings. Unfortunately, this type of imaginative play rarely extends into circle time interactions when teachers often spend more time on direct instruction type activities. Common circle time activities such as roll call, discussion, and calendar have even been found to increase challenging behaviors (Zaghlawan and Ostrosky, 2011), often because circle time activities limit student talk (Bustamante et al., 2018). Thus, when teachers engage students in these common circle time activities, they may limit their students' ability to engage in interactive dialogue in which students initiate and create opportunities for new learning around a topic of their interest.

By incorporating imaginative play into circle time, teachers may reduce the amount of direct instruction and provide students with more opportunities for interactive dialogue. Since students typically increase their learning when engaging in interactive dialogue patterns as compared to engaging in solo learning (Chi and Menekse, 2015), interactive instructional practices, such as dramatic inquiry, allow students to not only practice academic language but also increase their learning. When teachers incorporate sufficient scaffolding, clear learning goals, and promote student inquiry, they are better able to maintain and extend these interactions in the early childhood classroom (Muhonen et al., 2016). Providing students with opportunities to embody their learning through creative drama may further facilitate student interaction and language and literacy development (Mages, 2008).

The study

Context and ethical considerations

The idea for the original study began when our teacher participant, Miss Sofia, reached out to a member of the research team who was her instructor during her teacher preparation program. She

was interested in advancing in the field, engaging in teacher research, and learning innovative strategies to support student engagement. To support these goals, we partnered together to investigate how dramatic inquiry might be used as a tool in promoting the educational outcomes of young students with disabilities in her classroom. The Institutional Review Board, school district, and school principal approved the study before the research activities began. After Miss Sofia and the paraprofessional, Miss Elizabeth, consented to participate (pseudonyms), parents for all students in her afternoon class were invited and permitted for their child to participate in the study. Although the students' parents, teacher, and paraprofessional consented to allow us to use images of classroom interactions, we practiced ethical care in how we chose to present these images in this article by using artistic effects to conceal participant identities while sharing findings from our multimodal analysis.

We conducted an initial pilot study with Miss Sofia's inclusive preschool class during the spring of 2017 (Anderson et al., 2019). During the pilot study, Miss Sophia was provided initial training on dramatic inquiry, a dramatic inquiry unit outline, a list of suggested drama activities, and a checklist of procedures (i.e. the fidelity measure). We learned that, given the shift from regular circle time practices, Miss Sophia would also benefit from additional coaching supports to fully implement dramatic inquiry with fidelity. Miss Sophia had limited experience using dramatic inquiry activities such as Mantle of the Expert, so implementing them with fidelity was challenging. This study, conducted in fall 2017, incorporated daily coaching which included dramatic inquiry activity ideas based on student interests, learning goals, and Individualized Education Program (IEP) goals. However, Miss Sophia still struggled to provide students with the autonomy to fully drive the dramatic inquiry. Thus, the data shared in this article should be viewed with this limitation in mind.

Setting. Miss Sofia's classroom was located in a rural area of the Southwestern United States. Her afternoon inclusive preschool class included nine students who attended school four days per week. The majority of students had identified disabilities, but the class included a few peer models. The schedule included, circle time (i.e. a time when students sit on the carpet in the front of the room to practice instructional activities such as letter names and sounds, colors, numbers, calendar, and weather), centers (i.e. a time when students visit different areas of the classroom to engage in free-play or teacher guided small group activities), small group instruction with the teacher, and outdoor play. The curriculum was organized by monthly themes and guided by students' IEP and state early learning standards. Miss Sophia noticed students engaging in more challenging behaviors during circle time commensurate with research findings (cf. Zaghlawan and Ostrosky, 2011) due to the teacher-centered nature of circle time. Although several studies (cf. McLeod et al., 2017; Toub et al., 2018) have been conducted on use of drama and other play-based activities during, for instance, centers, book reading, and socio-dramatic play, we envisioned circle time as an opportunity to expand the use of play-based pedagogies beyond these settings. Thus, this study aimed to support Miss Sophia with extending play-based pedagogy beyond centers and socio-dramatic play to increase student engagement during circle time when more challenging behaviors often occurred. Additional descriptions of circle time procedures are included in the qualitative sections (below) to best contextualize the findings.

Participants

Jacob, Logan, and Sebastian (pseudonyms) were selected as focus students for this study because they appeared to exhibit less linguistic engagement than the other students during our

circle time observations. Jacob and Sebastian were both four-years-old at the time of the study, and Logan turned five-years-old during the study. All three boys were identified as having a primary disability of SLI, so they were placed in Miss Sofia's inclusive class to receive special education services for developing language skills. In addition to having a SLI, Sebastian was also identified with apraxia. Jacob, Logan, and Sebastian were in their second year in her class and their second semester of exposure to dramatic inquiry. Miss Sofia and Miss Elizabeth, along with the other students in the class also participated in the study, so we could examine how Jacob, Logan, and Sebastian engaged in interactive dialogue with them during regular circle time compared to dramatic inquiry. Some of the students and Miss Elizabeth were not present in Miss Sofia's class during the previous school year, so this study was their first experience participating in dramatic inquiry.

Procedures and research question

During the first phase of the study, Miss Sofia conducted regular circle time instruction. Then, she implemented a two-week dramatic inquiry entomologist unit based on her students' interest in insects following the suggested dramatic inquiry unit plan and implementation steps outlined in Farrand and Deeg's (2020) article: drawing upon student interests, developing a unit using the Mantle of Expert (i.e. a drama strategy developed by Dorothy Heathcote which positions students in extended roleplay as experts who examine potential solutions to a real or fictional problem; Heathcote and Bolton; 1995), engaging in dramatic exploration using active and dramatic multimodal activities, collaborating with others, and sharing potential solutions to the problem with others. The Mantle of the Expert unit was designed to support the teacher in creating a more student-centered, guided play approach to circle time. In this study, the students were positioned in the role of expert entomologists as they stepped in-role and engaged in drama activities to explore, "How can we as Entomologists, insect scientists, help farmers learn more about insects?" (Farrand, 2017a: 2). Throughout the unit, preschoolers took on the role of entomologists to help local farmers figure out how to keep insects from eating their crops (Farrand et al., 2019). Students in-role learned information (e.g. their body parts, how they move, how to care for them) about insects including caterpillars, roly-polies, and beetles. As they discovered new information about insects, they generated ideas to support the farmers in solving their problem without harming the insects. After this two-week unit, Miss Sofia reverted to regular instruction for about two weeks. For the final two weeks of the study, she implemented a dramatic inquiry marine biologist unit in which students investigated, "How can we as Marine Biologists. . . help the local Aquarium learn more about ocean animals that could add to their existing aquarium?" (Farrand, 2017b: 4; Additional description of dramatic inquiry is included in the qualitative findings sections (below) to best contextualize the findings. Also, see Farrand et al. (2019), Farrand and Deeg (2020), and Farrand (2017a; 2017b) <https://kathleenfarrand.wordpress.com/2019/01/23/download-dramatic-inquiry-units-here/> for additional details and unit plans.) The research team conducted direct observations of the video data from the entire 8-week study. Through direct observation of our focus students' classroom engagement, we noticed shifts in how students were using language and other modes to make meaning. Thus, we elected to conduct additional analysis of the original variables of interest to explore this observation. We reexamined the data for how students used social, instructional, and academic language as well as multimodal actions to engage in interactive dialogue with their teachers and peers. In this article, we explore the following research question:

How do preschool students with language delays engage in interactive dialogue during regular circle time compared to dramatic inquiry?

Method

The present study employed an explanatory sequential mixed methods design (quantitative analysis with subsequent qualitative analysis to help explain the quantitative results; Creswell and Plano Clark, 2018) to further explore the linguistic engagement of students. Circle time video data were collected daily from Miss Sofia's classroom. The video data were first analyzed using direct observation of focus student linguistic engagement. The researchers adapted definitions for interactive and constructive engagement used in the ICAP hypothesis (Chi and Wylie, 2014) to address the linguistic engagement of early childhood students.

For this analysis, we defined interactive linguistic engagement as any interaction which involved an act of dialoging, meaning two or more speakers generated information in the conversation. Choral responses and non-specific one-word responses (e.g. yes, no, okay) were not considered interactive linguistic engagement because they were not adding new information to the conversation. Constructive linguistic engagement, on the other hand, was recorded when a student offered original commentary without an inciting question/comment or any verbal follow up response by another speaker. The frequency of each type of linguistic engagement was recorded during a consistent ten-minute video segment during each phase. On each direct observation form, we recorded the approximate time of each interaction, the type of linguistic engagement (i.e. interactive, constructive), and who was involved in the interaction. Then all interactions were recorded into an Excel database, so we could analyze the linguistic engagement during each phase of the study.

Next, we determined the days with the most interactive and constructive linguistic engagement for each focus student. From this list, each student's top five high-level linguistic engagement days across all regular circle time and dramatic inquiry phases were selected for further multimodal transcription and analysis. Multimodal transcription allowed us to transcribe not only the spoken language but also the gestures, movement, visuals, props, and proximity used during each interaction (Norris, 2004). Ultimately, we created multimodal transcriptions for thirteen different days which focused on ninety-seven different examples of interactive and constructive linguistic engagement. We also transcribed relevant interactions from before, during, and after each recorded instance of interactive and constructive linguistic engagement to provide additional contextual knowledge. Finally, we conducted multimodal interaction analysis (Norris, 2004) to gain a holistic understanding of the multiple communicative processes in which our focus students, their teacher, their paraprofessional, and their peers engaged. This analysis involved us looking across the transcripts and coding them for common themes (e.g. finishes teachers sentence or answers first, teacher uses gestures or visual cues to support understanding, student looks at chart or visual cue), so we could compare how our focus students participated in interactive dialogue, including both verbal and non-verbal language.

Findings

In this section, we share examples of how Jacob, Logan, and Sebastian participated in interactive dialogue with their peers, Miss Sofia, and Miss Elizabeth. We begin by briefly discussing the quantitative findings from our frequency counts of each focus student's interactive and constructive linguistic engagement. Then, we unpack how interactive dialogue occurred during regular circle time and dramatic inquiry phases.

Quantitative Findings

We expected students would exhibit the most interactive and constructive linguistic engagement during dramatic inquiry days; however, more traditional instruction days made their top five

high-level linguistic engagement days. Frequency is reported for interactive and constructive linguistic engagement respectively. During the first traditional instruction phase, Jacob (interactive $n = 37$; constructive $n = 8$), Logan (interactive $n = 29$; constructive $n = 8$), and Sebastian (interactive $n = 9$; constructive $n = 5$) engaged in high-level linguistic interactions a total of 96 times. The first dramatic inquiry phase rendered 82 high-level linguistic interactions for Jacob (interactive $n = 38$; constructive $n = 5$), Logan (interactive $n = 26$; constructive $n = 6$), and Sebastian (interactive $n = 4$; constructive $n = 3$).

During the second traditional instruction phase, the boys only experienced 38 interactive and constructive linguistic interactions (Jacob interactive $n = 16$; constructive $n = 4$; Logan interactive $n = 6$; constructive $n = 3$; Sebastian interactive $n = 7$; constructive $n = 2$), and the second dramatic inquiry phase had a total of 36 (Jacob interactive $n = 18$; constructive $n = 1$; Logan interactive $n = 7$; constructive $n = 1$; Sebastian interactive $n = 7$; constructive $n = 2$). At first glance, these findings might suggest regular circle time instruction provides more opportunities for students to participate in interactive dialogue than dramatic inquiry because more interactive and constructive linguistic interactions occurred during traditional instruction; thus, we conducted multimodal interaction analysis to compare how these three preschool students with language delays participated in interactive dialogue during regular circle time compared to dramatic inquiry on the days they exhibited the most linguistic engagement.

Qualitative Interactions

All the examples below come from full multimodal transcripts; however, due to space limitations, we did not include the complete transcripts. Instead, we present one regular circle time example and one dramatic inquiry example from each student including dates, direct quotes, and descriptions of the key multimodal actions that took place.

Regular circle time. The majority of high-level linguistic engagement examples from regular circle time occurred during routine activities such as job selection, a very common routine in preschool classrooms in which students select special classroom jobs. In Miss Sofia's class, job selection began with students sitting with their legs crossed in a semi-circle on the edge of the carpet while she sat in the front of the classroom in a chair. She sorted through pictures of students and called them one-by-one to select a job-of-the-day. Typically, Miss Sofia would ask each student a social question about something related to his/her life (e.g. What did you eat for lunch today?) before handing the student a picture card to select his/her job.

Jacob. On 30 October, Jacob engaged in interactive dialogue with Miss Sofia when she asked, "What did you do this weekend when there was no school?" Jacob swung his arms as he replied, "I went shopping for a new lunchbox." She continued to ask questions to extend his use of social language, as the rest of the students watched and waited during this interaction because her gaze was directly on Jacob (see Figure 1 and 2). By calling Jacob up to the front of the class and talking to him one-on-one, Jacob's classmates did not have the opportunity to participate in this interactive dialogue. After Miss Sofia finished asking Jacob follow-up questions, she provided him with an opportunity to use instructional language as he selected his job-of-the-day, "door helper." This activity facilitated Jacob's use of social and instructional language.

Logan. On 24 October, Miss Sofia engaged the class by having them play a guess who type of game when she called students to select their jobs. She told the class, "I have a friend. He's a boy. . .He is sitting between Cole and Nathan." Students began looking for Logan as he was
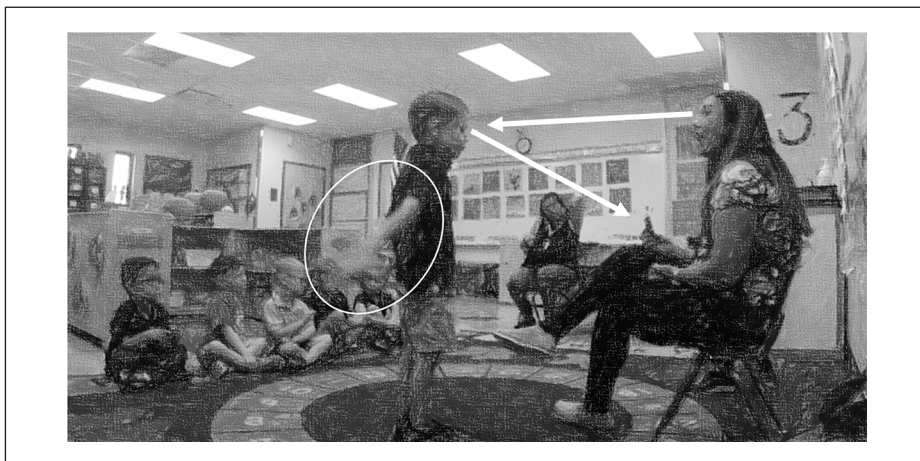
Figure 2. Jacob gazes at his job selection card and swings his arm as he responds to the teacher's questions.

the only student who fit all the criteria (see Figure 3). Once Logan came up to the front of the class, the teacher further engaged Logan and his classmates by asking another social question, about what he would wear for Halloween. Logan went on to share that he would be a pirate with a parrot. A young girl named Payton quickly chimed in asking if he was going to have a real parrot. Logan replied that his parrot was just a toy. Including a high-interest social event like Halloween allowed students to engage in interactive dialogue and expand their use of social language in the classroom.

Sebastian. Sebastian demonstrated most of his use of social and instructional language during job selection when the teacher engaged with him in one-on-one interactive dialogue. However, he frequently responded to social questions incorrectly. For instance, on 17 October, Miss Sofia asked Sebastian about what he ate for lunch. He responded, "a puppy." She attempted to redirect him asking if he played with his puppy and then asked, "But what did you eat?" Figure 4 demonstrates how Sebastian glanced down and rocked back and forth on his heels when he did not know how to answer her question. To support him with responding appropriately to the question, Miss Sofia provided Sebastian with a few optional responses to the original question, "Did you eat cereal, toast, oatmeal, fruit?" Sebastian eventually responded, "cereal." She handed him the card to select his job. A few seconds later, Miss Sofia and Sebastian made eye-contact as he told her about the job he chose, "backpack helper."

Dramatic inquiry. Miss Sofia incorporated far more visual representations, gestures, and smaller groups during dramatic inquiry than regular circle time instruction. Although multi-modal actions (i.e. instances in which the students used tools such as visuals, body movements, and gestures) took place during both regular and dramatic inquiry instruction, they were used more purposefully in dramatic inquiry instruction to engage students in learning and promote the use of academic language. Two activities were consistently used throughout the dramatic inquiry units which were not present in regular circle time instruction: the use of a daily *insect or ocean log* and *walk like a character*. (See Farrand et al., 2019; Farrand and Deeg, 2020 for additional dramatic inquiry activities).

Figure 3. Some students look at Logan as they try to guess who.

Jacob. On 14 November, Jacob engaged in interactive dialogue with his peers and Miss Sofia as they reviewed what they, as entomologists, learned about how to help local farmers with their insect problem. To help students recall what they learned, Miss Sofia reveals the *insect log* (i.e. an anchor chart on which they log their new learning each day). Together, the students built on each other's words and actions to reflect on ways to move the insects away from the farm without hurting them. When Miss Sofia asked, "What did we learn yesterday?", Cole replied first with "bugs," and the other students chimed in, "bugs." Then, Miss Sofia prompted further, "What about bugs though." Jacob responded, "the bucket," and Payton extended, "about holding them" as she pantomimed picking up and holding imaginary insects. Jacob continued, "with the bucket," and Payton followed, "playing, holding them." A few seconds later Cole joined back in the conversation, and asked Miss Sofia, "Why'd they draw leaves on it [referring to the *insect log*]?" She started to explain, "We did leaves because one group said that we should put," but she stopped mid-sentence to ask the class, "What should we put on the ground to lead them out?" Jacob glanced at the *insect log* and answered, "leaves." Miss Sofia agreed. Then Payton rejoined, "And then go on the beach." Payton continued to pantomime as she used her fingers to walk up her arm. Miss Sofia nodded, "Yep and they would lead them to the beach. And the other group said that we can put them in," and Jacob replied enthusiastically with "the bucket." Again, Miss Sofia nodded her head and repeated "buckets." Afterward, Miss Sofia had the students pantomime how to put the insects into buckets as seen in Figure 5. The use of the *insect log*, gesture, and interactive dialogue allowed students to collaborate along with their teacher to build upon the ideas of others and provide a potential solution to the farmers' problem.

Logan. Activities conducted during dramatic inquiry allowed students to embody different roles through movement. *Move like a character*, involved students taking on the role of an insect or ocean animal, depending on the unit, and moving like that insect or animal around the classroom. Typically, Miss Sofia would select one student to choose an action or two for the class to perform. A set of action cards was used to support students' selections. Each action card included a picture of an insect or ocean animal with a suggested phrase about what action the students would perform. Although only one student selected the actions for the day, all students participated in the roleplay.

Figure 4. Sebastian gazes at his feet when he does not know how to respond to the teacher's question.

Figure 5. Jacob gazes at the teacher as the class pantomimes gently moving the insects off the farm.

On 6 November, Miss Sofia decided to review all the action cards with the students prior to beginning the *move like a character* activity. She sat on her chair in the front of the room as she flipped through the action cards, showing each one to the students sitting in a semi-circle on the carpet. Miss Sofia held up a picture of a beetle and asked, "What insect is this?" Logan was the first to reply, "beetle." Miss Sofia read the card and showed it to the class again, "It says click like a beetle." Students, including Logan, started to make clicking noises with their voices and fingers. Later Miss Sofia showed a picture of a caterpillar. Logan leaned towards Miss Sofia with a big smile gazing directly at the action card. Again, he was the first one to identify the picture as a "caterpillar." Miss Sofia confirmed, "A caterpillar. It says wiggle like a caterpillar." After a few seconds, Miss Sofia shared the "roll like roly-poly" card. Then she demonstrated how to roll one fist over the other. Some students mimicked her action, but Logan chose to respond differently. He tucked his head down to demonstrate how a roly-poly would roll (See Figure 6). In this interaction, Logan not only drew upon images to make connections with specific academic language related to science, but he also had an opportunity to express his knowledge through his physical actions.
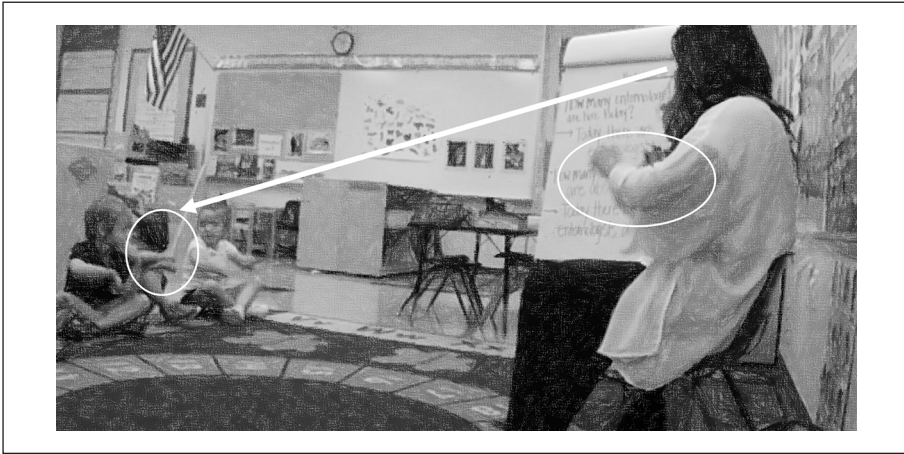
Figure 6. Logan tucks his head down to demonstrate how to roll like a roly poly while the teacher and his peers roll in a different way.

Sebastian. Miss Sofia also incorporated follow-up small group activities during *move like a character* which allowed students to explain their actions to their peers and teachers. Many times, after the students completed the activity, Miss Sofia placed students in small groups to discuss what body parts they moved when *moving like a character*. This small group activity offered students structured time to use multimodal actions and academic language to negotiate meaning with others whom they rarely interacted with during the regular circle time. Miss Elizabeth engaged in more authentic involvement in supporting instruction during dramatic inquiry as well by supporting the focus students with producing academic language during their reflections on the *move like a character* activity. For instance, during the marine biologist unit on 12 December, Miss Elizabeth noticed Sebastian was very quiet during the follow-up discussion, so she gazed directly at him and engaged him in interactive dialogue (see Figure 7). She asked him what body parts he moved when he was "a starfish or a jellyfish." Sebastian replied, "hands," and Miss Elizabeth nods. She continued to probe him to provide additional responses, "And what else were you moving?" He added, "legs." Although Miss Elizabeth often incorporated gestures to support students with their academic vocabulary, she did not use gestures in this particular interaction because Sebastian responded appropriately.

Discussion

This study examined how preschool students with language delays engaged in interactive dialogue during regular circle time compared to dramatic inquiry. Although the quantitative data analysis demonstrated fewer high-level linguistic engagement days during dramatic inquiry, multimodal analysis revealed the interactions that occurred were markedly different including shifts in the teacher's pedagogical practices and how language was used in the classroom.

Shifts in pedagogical practice

We discovered many of the high-level linguistic engagement examples from regular circle time happened during the job selection activity in which one student would engage with the teacher

Figure 7. Miss Elizabeth gazes at Sebastian as they discuss what body parts he moved when he was in-role as a starfish or a jellyfish.

while the rest of the students watched. As each student walked up to the front of the room individually their proximity became closer and allowed for opportunities for one-on-one interactive dialogue with the teacher, but this practice limited opportunities for interactive dialogue with other students and placed distance between the teacher and other students. Zaghlawan and Ostrosky (2011) found similar circle time activities often resulted in disengagement and increased behavior challenges. Unsurprisingly, the days that incited the most interactive dialogue connected to topics of student interest (e.g. what costume you will wear for Halloween) or prior knowledge (e.g. what you ate for lunch), but even these one-on-one interactive dialogues have been shown to create disengagement within the larger group (cf. Zaghlawan and Ostrosky, 2011). In our study, some students attempted to disrupt this pattern by joining into these one-on-one discussions when they heard something of interest. For instance, when Payton asked questions about Logan's Halloween costume, she was disrupting the regular circle time practice, but she was also shifting the teacher-centered nature of circle time to become more student-centered. This example demonstrates some student resistance to the teacher-controlled one-on-one question and response routine of regular circle time in favor of a more student-controlled inquiry approach. Bustamante and colleagues (2018) suggest that even minor adjustments to circle time practices to include more student participation can increase the overall quality of learning. When teachers shift the control of the conversation to the students, students have more opportunities to engage and produce language (Anstrom et al., 2010).

The dramatic inquiry units and corresponding coaching in this study were designed to shift Miss Sofia's pedagogical practice from a traditional teacher-controlled circle time approach to a guided play approach which gives students autonomy to explore content of interest to them while still meeting curricular goals (cf. Toub et al., 2016; Weisberg et al., 2016). However, Miss Sofia struggled to relinquish control of the inquiry to the students, so most of the dramatic inquiry activities in this study more closely aligned with a directed play approach. The day the students responded to the main inquiry question from the entomologist unit was the only day in which the students took over more control of the conversation and instruction took a guided play approach. Although

students' autonomy was still limited, dramatic inquiry activities allowed the teacher to incorporate pre-teaching of content and opportunities for balanced language experiences between teachers and students. Even though Miss Sofia's delivery remained more on the side of directed play instead of guided play, this play-based pedagogy has also been found to be an effective method for supporting students with developing receptive and expressive language skills (cf. Toub et al., 2018). Furthermore, Weisberg and colleagues (2016) remind us that the degree to which students control the direction of play-based learning "should shift depending on the learners' abilities and the learning goals" and "that there is a vast pedagogical space between the stark dichotomy of free play and direction instruction" (p. 179). Teachers balance a multitude of expectations and mandates in the classroom, and these impact a teacher's ability to implement certain aspects of play-based pedagogies. Thus, our study illuminates the fluctuating nature of instruction on the continuum of play-based pedagogies.

Shifts in language use

Regular circle time focused largely on topics students already knew a lot about, so students used mostly social and instructional language; whereas, dramatic inquiry exposed them to new topics (i.e. insects and oceans) and vocabulary (e.g. entomologist, roly-poly, marine biologist, starfish) in which they were not as familiar, so students had opportunities to practice more academic language (cf. Cummins, 1980). As a result, the academic language found in dramatic inquiry was not produced as frequently as the social and instructional language found in regular circle time. McLeod, Hardy, and Kaiser (2017) found when words were less connected to a child's everyday life, some students struggled to integrate the new vocabulary into conversation. Thus, the science vocabulary used in dramatic inquiry took additional supports such as visuals and movements to learn and produce. To teach students this new academic language, Miss Sofia needed to expand the traditional view of literacy in her classroom to take on a multimodal view of literacy. In so doing, she embraced how each mode (e.g. images, signs, text, charts) develops complex meaning potential for students (Kress, 2010).

Dramatic inquiry created more opportunities for students to practice academic language and learn science content. Unlike in regular circle time, Miss Sofia consistently referenced classroom resources and tools such as the *insect or ocean log* during dramatic inquiry. She was purposeful in pointing out the words and images drawn on the *insect or ocean log* to support student understanding and develop science specific vocabulary. Spencer and Slocum's (2010) study similarly showed incorporating instructor guidance, visuals, objects, gestures, and active play-based strategies into instruction were effective for supporting the language skills of preschoolers who were at risk of language delays. Moreover, as students in our study engage with multimodal resources, they begin to use them to aid them with communication and express their ideas (cf. Hilppö et al. 2017).

Dramatic inquiry activities facilitated students in sociocultural interactions in which they were able to mediate different tools (e.g. gestures, visuals, talk, text, props, movement) and collaborate with their peers to explore possible solutions to the inquiry question that guided their learning during dramatic inquiry (Edmiston, 2014). The ASHA (2020) encourages the practice of using different tools to mediate communication and emphasizes the importance of teaching preschoolers with language disorders to use alternative methods of communication. In our study, not only did students draw upon the words and images on the *insect or ocean log*, they also used their bodies to communicate how they moved as different characters and accessed objects such as toy insects and ocean animals to support meaning-making. Through the *move like a character*

activity and follow-up discussions, students were able to embody their learning by "being in the context" and not just talking about it (Barab et al., 2007: 2). Additionally, the smaller groups used to support these dramatic experiences cultivated new ways for students to actively participate in classroom instruction and altered how the teacher, the paraprofessional, and the students interacted with each other. The smaller groups allowed for a greater shift towards student-directed learning.

Implications

This study highlights the importance of using mixed methods approaches to enrich our understanding of direct observation methods to examine complex learning such as young children's language interactions. The quantitative data in this study told us an unexpected story about the use of dramatic inquiry for supporting classroom interactions, while the addition of the multimodal analysis provided a richer explanation of students' experiences. The field of early childhood education could benefit from additional mixed methods studies which emphasize the complexities of student learning. Teacher educators, pre-service teachers, and in-service teachers may find this research useful for evaluating their pedagogical practices on the continuum of play-based pedagogies. This research illuminates the difficultly teachers may face when first attempting to shift pedagogical practices to more student-centered play-based approaches while simultaneously juggling academic and IEP requirements. However, overtime, by providing students with play-based activities and multiple modes of response, students may gain more agency in their learning, collaborate in new ways, and be repositioned and empowered to take on new positions in the classroom. This research also has implications for how the use of multiple modes during dramatic inquiry activities can provide students with speech and language impairments with additional tools to develop receptive and expressive language skills.

Conclusion

This article examined how preschool students with language delays engaged in interactive dialogue during regular circle time and dramatic inquiry activities. Through the use of a mixed method design, we were able to gain a more holistic vision of how students utilized language during different types of activities. As the teacher shifted her practice away from direct instruction to a more play-based approach, students were given more agency to draw upon multiple modes to make meaning. By providing experiences to share beyond spoken language, students were able to effectively share their ideas with others and demonstrate their science content knowledge.

ORCID iDs

Megan T Deeg https://orcid.org/0000-0002-5103-9226

Wendy Peia Oakes https://orcid.org/0000-0002-3533-8293

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