

Types of Talk During Peer Interaction in Preschool Play

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Abstract

TYPES OF TALK DURING PEER INTERACTION IN PLAY

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Social influences can have a great impact on how children develop language. There is currently a large amount of research on how adults can affect language development, but significantly less on how peers affect this development. The effect peers have on language development was examined in a study by Mashburn, Justice, Downer, and Pianta (2009). Results from the previous study indicated that when children interact in preschool settings, the achievement gap for language abilities widens between children with high-level language abilities and children with low-level abilities. In this study, I examined the talk of children with high- and low-level language scores. I conducted an

observational study examining the talk of children with high-level language scores and two children with low level language scores. Talk between peers was observed and recorded, then analyzed with respect to how much children with different language skills talk to their peers, and the genres of talk they are using. Findings indicated that the children with low-level language scores engaged in talk less. Also, certain genres of talk accounted for more of the talk for all of the children, but children with high-level language scores were better able to engage in longer, more detailed talk. These findings provided insight into areas of exploration for both researchers and teachers.

Peers and Language Development in Preschool

In early childhood education, language acquisition is a topic of major exploration, reflection, and study (Boyd & Bee, 2009). Children go through their early years exhibiting a vast range of skills, abilities, and developmental stages, yet almost all will develop abilities that allow them to communicate with others in their environment. With language development being such an important factor in the early years, early childhood educators and researchers are examining how best to facilitate and support children in their language learning.

Previous research shows that interactions between a child and others are a key element in language development (Colker, 2009; Kuhl, Conboy, Padden, Nelson, & Pruitt, 2005; Yoshida, Pons, Cady, & Werker, 2010). Various individuals and groups are able to positively influence a child's language development, including the child's mother (Bornstein, Haynes, & Painter, 1998) and tutors or instructors (Logan, Piasta, Justice, Schatschneider, & Petrill, 2011; Yoshida et. al, 2010). With respect to a child's peers, some research shows that peer interactions can have a positive effect on a child's learning (Justice, Petscher, Scatschneider, & Mashburn, 2011; Mashburn, Justice, Downer, & Pianta, 2009). However, some concerns were raised about how these positive effects are distributed amongst children with higher and lower level language abilities. There is a need for more information about the kinds of peer-to-peer language interactions that are

happening in the classroom. This study examined peer talk for children with both high- and low-level language scores. A better understanding of these interactions may provide insight into creating supports for those behind their peers.

Conceptual Framework

The Social Nature of Language Development

Language is a social process, and communicating with others is an essential element of language development. When children talk to other people, these people directly or indirectly offer them extensive information about their language (Clark, 2009; King & Saxton, 2010; Logan et al., 2011). This language learning starts at the beginning of life and develops throughout the childhood years. Between age one and age six, children acquire extensive communication skills, moving from simply attending to noises and eye contact, to babbling and speech-like sounds, to using short utterances, to expressing themselves in full sentences and holding conversations (Bowen, 1998; Cooper, 2003; Otto, 2014).

Throughout the process of language acquisition, there are three areas of development: receptive language, expressive language, and meta-linguistic skills (Bowen, 1998; Clark, 2009; Otto, 2014). Receptive language is the ability to hear and understand language (Bowen, 1998, Otto, 2014). Expressive language is words and utterances used to communicate wants and needs (Bowen 1998; Otto 2014). Meta-linguistic skills are the awareness and control linguistic components of language. These include elements such as developing word meaning, understanding rules of grammar or phrasing structure, and using appropriate intonation and rhythm (Clark, 2009; Otto, 2014).

Receptive language, expressive language, and meta-linguistic skills are enhanced and developed through social interactions. For example, children develop receptive language through processing language input from others, such as following spoken directions or interpreting a question. Expressive language is used to share thoughts and ideas, and have others respond appropriately to them (Clark, 2009; Otto, 2014). For meta-linguistic skills, children learn how to use and understand language appropriately through examples provided by others (Clark, 2009). For all of these areas, the social aspect is a crucial element for developing skills and abilities.

In the preschool years (ages 3-5), children hear and understand commands, answer questions, and respond to simple stories. They can also use their language interactions to meet a wider variety of wants and needs (Clark, 2009; Ochs & Schiefflin, 2014; Otto, 2014). Preschool children become more skilled at using language, and begin to use language for a wider range of purposes than they have in the past. During these years, preschool children's speech begins to fit into different genres of talk. Successful interactions with these genres of talk become essential for meeting these growing, varied goals and interests (Clark, 2009; Ochs & Schiefflin, 2014; Otto, 2014). In *First Language Acquisition* (Clark, 2009), these genres are defined as follows:

- Being polite- This language includes requests, acts of sharing and taking turns. It incorporates polite words such as “please” and “thank you” or polite intonations, such as a softer voice.

- Asking questions or giving justifications- With this genre, children explore cause and effect. They wonder why something occurred or something is the way it is, and provide answers or justifications for wonderings.
- Being persuasive- Being persuasive includes using language to convince another individual to do something, grant a favor, or to adopt a different view. These goals can sometimes be accomplished through polite requests, but there are also less direct language interactions that can occur.
- Resolving conflicts- Resolving conflicts involves two parts: an adversative encounter and a result. At times, interactions might bring conflicts to a close, or they may create more conflicts to be resolved.
- Giving stage directions- When children play together, they often enact complex scenes with a variety of roles. They spend a great deal of time directly identifying who they will be in play and what will happen.
- School talk- School talk refers to the kinds of exchanges that usually happen at school. Examples include taking turns to speak in large group settings or answering questions to display knowledge, even though the asker (most often the teacher) already knows the answer.
- Telling stories- In storytelling, a child recounts something occurring at another time and place. It can include a setting, pertinent events, characters, mood, motives, goals, and the final outcome.

When children are young they use language to accomplish smaller goals, such as getting the toy they want or being comforted when they are upset (Otto, 2014). As

children move into the preschool years, their goals expand to include navigating friendships, understanding social structures, and exploring new concepts (Otto, 2014). When children have difficulties with language development, it can affect both their current and future learning and social abilities. Having low-level language abilities has been associated with feeling shy/anxious around peers, social isolation or exclusion, task avoidance, and maladaptive or aggressive behaviors (Marcon, 1994; Menting, van Lier, & Koot, 2011; Pitchlyn, 2010; Strand, Pula, Parks, & Cerna, 2011). From a learning perspective, low-ability language skills correlate with low performance in academic subjects, particularly literacy. These include a child's ability to understand and respond to written or oral communications as well as knowledge of grammar (Campisi, Serbin, Stack, Schwartzman, & Ledingham, 2009; Clark, 2009; Otto, 2014; Pitchlyn, 2010).

Social Influences on Language Development

The previous discussion on early language acquisition introduced the influence of other individuals on a child's language development. The following section explores these social influences more closely. The individuals affecting language learning have been divided into two groups: adults and children. For adults, the relationship that develops between an adults and children as teachers and learners, respectively, is examined within an apprenticeship framework model. Also, language learning between adults and children in the classroom is specifically examined. The apprenticeship framework is then examined for language learning between children. Also, studies are presented that focus on the influence that children of the same age (i.e., a child's peers)

can have on language development. These studies serve as the foundation for the proposed study.

Adults and language development. Adults are an important resource for children developing language. Adult-to-child interactions are typically the first language experiences for children, and these interactions give both information and opportunity. When adults engage children in language, they provide examples for how language can be used and scenarios for children to practice their own language skills (Bornstein, Haynes, & Painter, 1998; King & Saxton, 2010; Rogoff, 1990; Stokes & Klee, 2009). Adults are experienced partners that can help children make sense of language and utilize it properly. When children attend preschool, their teacher is a specific adult who provides a lot of this support and structure for language development. This section examines a framework for how adults provide support for children's language interactions and discusses the influence of an early childhood teacher on language development.

Researcher Barbara Rogoff (1990) defined a framework for examining the learning relationship between adults and children as an apprenticeship in thinking. Rogoff identified an apprenticeship in thinking as when children's learning occurs through participating in an activity in which a more experienced partner provides guidance (or, guided participation). In most experiences for children, the more experienced partner is an adult who can provide a better structure for participating in a skilled activity. Adults provide children with learning experiences and situations. Then, they help the child to understand how to process and participate in these experiences by providing verbal and non-verbal cues about how to behave and verbal labels to classify objects and events.

For language development, Rogoff stated that guided participation for language occurs in various types of interactions, ranging from routine tasks (e.g., getting dressed, eating lunch) to skilled activities (e.g., reading a book, completing a puzzle). Language interactions often play a key role in any of these guided participation activities. Through verbal communication, adults provide data and structure (e.g., labels, categories, expansions on ideas) and children actively use this information when building understandings. For example, when parents are speaking with their young children during tasks, they will often correct, or ask clarifying questions when their child forms a sentence incorrectly, or uses a word in the wrong context (Rogoff, 1990). Given a new or clarified example of language, the child can adjust his/her own skills accordingly.

This kind of language learning could happen in any guided participation scenario. Because of this, any guided participation activity that includes language could be considered a language learning opportunity as well. This is particularly true for young children developing their language abilities. For example, one study examined this apprenticeship model in a cooking activity between preschoolers' and their parents. In the study the parents used the cooking to share about math and literacy learning concepts, and elicit responses about these ideas from the children (Finn & Vandermaas-Peeler, 2013). Although the parents' intention may have been to have their children practice emergent academic skills, they also supported their children's language skills by introducing new vocabulary, describing processes, and having the children use their language skills as well. Results indicated that these guided participation activities improved the children's ability to use their language to provide acceptable responses. In

these ways, adults provide expertise and knowledge in the apprenticeship relationship to help guide children in their learning. For children that attend early childhood programs, the teacher is also an important adult in the child's life. Examining teachers and early childhood classrooms within the apprenticeship in learning framework also provides important insight on how adults affect language development.

Early childhood classrooms are environments that essentially are built around this idea of adults providing support and structure in activities with less experienced children. As children move into their preschool years, the school environment and the adults within it play a critical role in a child's language development (Benzies et al., 2011; Logan et al., 2011; Strand et al., 2011). One recent study examined the effects of attendance rates and quality of teacher-child interactions on the expressive language development for children at-risk for language delays (Logan et al., 2011). Participants included 146 children in 14 preschool classrooms, with researchers gathering data on expressive language levels at the beginning and end of the school year, as well as scores for the quality of the classroom in instructional practices, language modeling, and positive climate. Results showed that children regularly attending preschool classrooms with higher quality practices in instruction, language, and environment showed greater gains in their language development.

Another study examined the specific language practice of teachers asking questions while participating in socio-dramatic play (Meachum, Vukelich, Han, & Buell, 2014). Researchers recorded and analyzed teachers' uses of open- and closed-ended questions, as well as non-question comments while participating in dramatic play with students.

Results indicated that the use of questions, rather than another strategy like commenting on play, was more effective in gaining verbal responses from the children. Furthermore, when the teachers used open-ended questions, the children's responses were more varied and detailed in their word use, and more complex in their syntax. These results suggest that asking open-ended questions to children during play helps them develop language through increased opportunities and more sophisticated use of language.

These studies show that adults can significantly affect a child's language development, and that more frequent interactions with higher quality language modeling results in stronger language abilities. These results also provide support for learning through Rogoff's apprenticeship in thinking framework. As described previously, guided participation in the apprenticeship in thinking framework includes a more experienced partner providing examples and supports of a practice for the novice learner to gain new abilities. Instructional practices, language modeling, and positive climate all certainly fit this description, in that they require the experienced partner (in this case, the teacher) to establish activities or share ideas specifically designed for the novice (i.e., the child) to learn. If it is established that learning happens through this apprenticeship framework, it is fitting that children that are experiencing these apprenticeship practices more regularly, and in higher quality formats are showing more gains in their language. The results from the study by Meachum et al. (2014) suggest that questioning is one form of higher-quality language interaction. These findings call into question what other kinds of language interactions could be considered higher quality, and what is included in them. In a recent study by King and Saxton (2010), researchers examined small group conversations

facilitated by teachers in a nursery school class. The researchers were gathering information on what types of conversations (e.g., information on routine activities, story-book comments, observational discussions, individual time) nursery school teachers are facilitating, and which type encouraged the most participation from the children. Participants included 9 children (aged 3-4 years) in a nursery school class and their teacher. Group interactions and conversations initiated and facilitated by adults were observed and videotaped on 10 separate occasions over two months. The data were analyzed using a coding scheme designed to capture the types of conversations (as indicated earlier), the levels of conversational initiation (i.e., how and when a student begins a language interaction with another person) and response for both the children and the teacher, as well as the frequency of extended conversations (i.e., language interactions with more than two back-and-forth comments between participants).

Results showed that conversations facilitated by the teacher that centered on daily routines and familiar activities provided the highest levels of conversation initiation and response from the children. Also, these topics showed the largest number of extended conversations. Using their data on frequency of initiations and responses, King and Saxton (2010) were also able to divide the class into children with high levels of interaction and children with low levels of interaction. The researchers noted that the children with high levels of interaction were very persistent in using language to share their ideas, particularly during large group discussions. For the children at low-interaction levels, their highest frequency of conversation initiation and response came during conversations identified as individual time. Individual time was identified as times when

children were working in smaller groups, the adult was not leading the discussion, and the children were the main participants in conversation. When considering what types of language interactions might provide those high-quality experiences, King and Saxton (2010) showed that varied opportunities for language interactions, both teacher-facilitated and student-centered, are important for language growth. Furthermore, the children with lower-level language abilities tended to gravitate more towards talking to their peers in informal settings. This is a finding that indicates that peer language interactions should also be included in high-quality language experiences.

Adults can play a crucial role in the language development of young children (Benzies et al., 2011; Bornstein et al., 1998; Logan et al., 2011; Stokes & Klee, 2009; Strand et al., 2011). They often act as experts that support and structure learning, so that children can observe, imitate, and build understanding (Meachum et al., 2014; Rogoff, 1990). This is particularly prevalent in early childhood classrooms, a place designed specifically for adults to help children learn. Children attending school and engaging regularly in language interactions develop stronger language abilities (Logan et al., 2011). Preschool classrooms also give children the opportunity to engage in language with peers, and children with lower-level abilities tend to speak more with their peers than with teachers (King & Saxton, 2010). Therefore, it may be important to shift focus from teacher facilitated language interactions, to peer-to-peer language interactions as an under-utilized resource for supporting language development.

Peers and language development. Peers can play a strong role in children's language development (Bruce, Hanssen, & Nettelbladt, 2010; Justice et al., 2011;

Mashburn et al., 2009). For example, children in elementary grades have been shown to increase their vocabulary with peer tutoring models (Alt & Suddarth, 2012; Hughes & Frederick, 2005). However, the impact peers have on non-academic language development has at times been discounted in favor of the impact of adults. Researchers Ochs and Schiefflin (2014) discussed this in their exploration of language socialization. Language socialization states that children acquire language and culture through an integrated process. This process occurs during interactions between all participants in a culture (Ochs & Schiefflin, 2014). It is established in language socialization theory that interactions have an asymmetry of power (i.e., a novice learning from an expert). However, it is also noted that expertise is often convoluted with power, in which case, the only types of guided participation recognized are those that occur with the adult as the expert and the child as the novice. Individuals in positions of less power are often dismissed as having no expertise. Ochs and Scheifflin (2014) encouraged the examination of the learning that happens between participants in various relationships, like peers.

With Rogoff's apprenticeship in thinking model, there was some discussion of peer interactions and how they provide different benefits than an apprenticeship with an adult (Rogoff, 1990). Rogoff's reasoning for this was similar to the discussion in language socialization theory. Because adults are often placed in positions of authority, children may feel freer to explore the logic of arguments and ideas with peers. Thus, an apprenticeship with peers may provide opportunities for understanding that adults cannot provide. With this in mind, Rogoff discussed some elements that support peer apprenticeships, including relative expertise amongst participants, and time for social

play and activity exploration. Relative expertise states that even though two peers may appear to hold equal levels of knowledge or experience, the best learning happens when one has slightly more experience than the other and thus can provide the guided participation framework for cognitive development (Farnsworth, 2012, Rogoff, 1990). If two peers do form this expert-novice relationship, they then need time to interact with one another to share knowledge and learn from experiences. Unstructured time for social play and activity exploration provide these opportunities for peers to interact.

Unstructured playtime has an absence of external control in which children can decide on, state, and adjust the rules of their activity (Rogoff, 1990; Smilansky & Shefatya, 1990; Umek & Musek, 2001). This kind of unstructured social play between two peers with relative status could happen at the child's home, in social situations in their neighborhood, or at extra curricular activities, but for any child that is regularly attending a school program, probably the largest opportunity they have for this play is in the early childhood classroom. The early childhood classroom can provide children with both a wide variety of play activities, and a large selection of peers with differing levels of expertise. In terms of language learning and peers, much research has been conducted on the influence that adults have on language learning in the early childhood classroom (Benzies et al., 2011; Logan et al., 2011; Meachum et al., 2014; Smilansky & Shefatya, 1990; Strand et al., 2011), comparably little work has been done peers' effects at the preschool level. The following sections discuss how play at school offers important opportunities for language interaction, and examines two studies that offer a beginning look into the overall effects of peers on young children's language development. They

provided some possible directions to continue this research that acted as the impetus for this study.

Play in the classroom. Much of the language interaction between peers in early childhood classrooms happens during unstructured play times (King & Saxton, 2011; Smilansky & Shefatya, 1990). Children's play has been a rich subject of study for many years (Corsaro, 2003; Farnsworth, 2015; Smilansky & Shefatya, 1990), and language interactions are often identified as integral elements of play (Clark, 2009; Corsaro, 2003; Smilansky & Shefatya, 1990; Umek & Musek, 2001). This is particularly true for symbolic play. In symbolic play, a child may take on an imagined role or use objects by giving them a different function in play than in real life. Because of this, a child must define these symbolic transformations verbally, so that they have a clear meaning, and are understood by his/her playmates (Farnsworth, 2003; Smilansky & Shefatya, 1990; Umek & Musek, 2001). In these ways, play in the classroom creates opportunities for language interaction between peers. The next step is to examine what effect these language interactions can have on a child's overall language development.

The effects of peers' language in the classroom. The previous discussions established that children learn language through socializing with others, both adults and peers (Ochs & Schiefflin, 2014; Rogoff, 1990). It also noted that children engage more or less in language, depending on the situation or the type of language being used (King & Saxton, 2010; Meachum et al., 2014). However the discussion of high and low ability levels of language interaction has focused on adult –child interaction. This raises the question of whether peers can have an influence on language abilities. The following

studies highlight how peers can affect language development and present some ideas regarding the differences between children with high- and low-level language abilities.

A recent study by Mashburn et al. (2009) examined the impact of a child's peers on language development. For this study, the researchers had three main goals: (1) to examine the direct effects of peers' expressive language abilities on a child's language skills at the end of their pre-K year, controlling for other potential factors; (2) to examine whether peer expressive language abilities affect children's language development differently depending on the ability levels of both the individual child and child's peers; and (3) to examine how connections between characteristics of the classroom environment (particularly those that support or inhibit frequent, positive interactions among peers) and peer expressive language development affect a child's language development. For the first goal, researchers hypothesized that their findings would be similar to previous smaller studies that indicated peers do have a significant effect on language development. For the second, they expected to find that peers with higher expressive language skills would be better language learning resources for children with lower language skills than children with similarly high abilities. For the third goal, researchers presented some theories about larger class sizes and classrooms with a positive climate. The researchers proposed that classrooms with high levels of emotional support and more children with which to converse might produce stronger achievement in language development.

Mashburn et al. (2009) utilized data collected from two previous studies examining early education programs nationwide. Participants selected were a subsample

of children eligible for Kindergarten the following year and consisted of 1,812 students from 453 classrooms in 11 states. In each classroom, four children (i.e., two boys and two girls) were selected to represent the classroom as a whole. Demographics were collected including gender, race/ethnicity, and years of maternal education. Information about the class was collected, including length of the school day, class size, and child-teacher ratio for the classroom. Also, the level of emotional support for each of the classrooms was determined using the Emotional Support domain of the Classroom Assessment Scoring System- Pre-K (CLASS). In CLASS, observers use a 7-point scale to rate classrooms and teachers in four domains, of which Emotional Support is one. There are five dimensions in Emotional Support: Positive Climate, Negative Climate, Teacher Sensitivity, Over Control, and Behavior Management.

For language achievement, fall and spring scores were collected to note gains over the year. Receptive language ability was assessed using the Peabody Picture Vocabulary Test- 3rd Edition (PPVT-III), and expressive language ability was assessed using the Oral Expression Scale from the Oral and Written Language Scales (OWLS). Researchers also determined level of peer expressive language abilities by creating a class peer expression score with the mean of the other participants' scores in each class. For example, with each class sample of four children, for Child 1 the peer expressive language level was determined by averaging the scores of Children 2, 3, and 4. This was done for again for Children 2, 3, and 4 respectively. These scores (i.e., unique to each participant) were used to compare an individual participant to the class as a whole. For the scores of peers, researchers focused only on the expressive language data, citing

previous research that found that children's new word acquisition depends upon direct linguistic inputs. Data were analyzed using a nested design with hierarchical linear modeling (HLM).

Data analysis revealed significant outcomes for each of the three main research goals. For goal one, researchers found that peer expressive language skills, as measured by the class expressive language score do affect a child's expressive and receptive language development. The researchers described these results as small, but comparable to the effect of maternal education on language development, a factor that was previously discussed as significant to language learning and later literacy development.

For the second goal, findings showed that peer expressive language ability did not have a significant effect on expressive language ability, but did affect receptive language ability. These results indicated that all of the participants improved their receptive language abilities over the year. However, in the classes with high peer expressive language levels, participants that started with higher receptive language abilities experienced greater increases than participants that started with lower receptive language abilities. Thus, the achievement gap in language development actually grew bigger instead of smaller. This finding was contrary to the original hypothesis that children at lower levels would be brought up by their higher-level peers.

Finally, for the third research goal, only one of the CLASS dimensions, Behavior Management, showed an association with peer expressive language skills and had a positive effect on language development in pre-K. Findings suggested that better

behavior management in a classroom could support the positive influence of a peer's expressive language skills.

In consideration of their unexpected result (i.e., higher level receptive language children are benefitting more from high level expressive language peers than lower level children) Mashburn et al. (2009) discuss the Matthew Effect theory that achievement gaps often widen as those that start higher are able to take more advantage of good resources and experiences than their lower level peers. Mashburn et al. (2009) propose two possibilities for this. The first is that children with low level language skills engage less frequently or may be valued less by their peers because of poor communication skills, thus losing out on important practice and development experiences. The second is that children with higher level receptive language abilities exhibit better engagement in various activities, having more frequent and higher quality language interactions than those of their lower level peers.

In their discussion of limitations, Mashburn et al. (2009) discussed possible issues with participant sample, measurement errors, and the type of data collected. For participants, limitations included a bias towards higher maternal education and exclusion of English language learners that may have resulted in less diverse classrooms being used in the study. Potential measurement errors in CLASS observations were also discussed, due to inter-rater reliability coefficients from the observations not being computed.

Of particular note, however, are the limitations discussed involving more detail on peer-to-peer interactions. In the Mashburn et al. study, peer expressive language level was determined using the averages of the three other participants, but this determination

assumes that all of the children are interacting equally. It does not take into account a child spending most or all of his/her time with one specific peer for instance. The researchers call for a greater understanding of who is interacting with whom, and for how long. Likewise, the study did not include information from the classrooms such as the amount of peer-to-peer interactions or the frequency or quality of teachers' language inputs with individual children. Both of these limitations call for more information about what language interactions are happening in the classroom, how often they are happening, and how this information can be used to improve our support of language development.

A follow-up study to Mashburn et al. (2009) was conducted by Justice, Mashburn, Petscher, and Schatschneider (2011). Based on the previous findings about how peers affect language development, Justice et al. developed a study that focused on children's language growth in preschool, particularly in reference to the level of their classmates as a whole. The research questions for this study were: What are the effects of peers on children's language growth, and does the overall ability level of a classroom correlate with gains in language skills?

The first research question posed was intended to improve and refine the data collection approach used in Mashburn et al. (2009). As mentioned earlier, the researchers in the Mashburn study found that peer expressive language ability did not have a significant effect on participants' expressive language ability. For this study, the researchers decided to focus specifically on expressive language development, and use a different set of tools to measure expressive language. Instead of using one scale (i.e.,

OWLS), the researchers used five individual tests that measured expressive language abilities, sentence structure, single-word receptive vocabulary, and narrative discourse. Using confirmatory factor analysis, they generated latent scores for 338 children in 49 publicly funded preschool classrooms with prioritized enrollment for low-income families. Children were administered the tests in the fall and spring to examine gains in scores. The instructional quality of the classrooms was assessed using CLASS and used as a control measure for focusing on peer effects. The overall language ability of the class was determined by using the mean expressive language scores of the other participants in the class.

Multilevel modeling was used to examine peers' effects on language abilities. Justice et al.'s (2011) results indicated that participants' expressive language abilities were affected by the abilities of their peers when measuring expressive language with the combination of scales. For expressive language achievement, children with lower expressive language abilities fell behind in their development when placed in overall low ability classes. Children with lower expressive language abilities in classes where their peers' skills were average stayed about the same in their scores. Children with low expressive language abilities in classrooms with peers that have high expressive language abilities saw an increase in language scores. Children with high expressive language abilities in all classes made gains and were not significantly affected by the overall ability level of the class.

In their discussion of these results, Justice et al. (2011) argued that any type of tracking or ability grouping, whether intentional or not, is potentially damaging to the

development of the children at the greatest risk. They use their findings to suggest that all children should be grouped into preschool classrooms that have a mix of language ability levels, as there are positive benefits for children with low abilities and not much risk for children with high-level abilities. Additionally, they call for experimental manipulations such as purposely placing children with low expressive language abilities in classes with a high average of expressive language scores, or improving teacher education for promoting language growth, to take their research to the next level. Justice et al. (2011) show that peers affect expressive language, and that the peers' levels of language development can make a difference, particularly for those children with lower abilities.

Justice et al. (2011) suggested that interventions targeted at improving language development might be useful to support children with lower expressive language abilities. However, it may be useful to gather more information on the interactions that are already happening in the classroom, in order to inform how to structure these possible interventions. To ensure that peer-to-peer interventions are engaging, meaningful, and successful, it is important to know what kinds of environments or scenarios encourage children to speak with one another, particularly those that encourage children with low-level abilities to speak. Also, it is important to know what kinds of language interactions (i.e., their genres of talk) are successful for children with both high-level language abilities and children with low-level language abilities. The current study examined these language interactions in the classroom and provided information to develop possible teacher and peer-focused interventions.

Personal Interest in Language Development

I am currently a Pre-K teacher and I have been in the early childhood field for 10 years, working with children from infancy through Kindergarten. Education, however, was not my original field of study. I completed my undergraduate coursework in Anthropology, with a specific interest in cultural views of children. During my undergraduate coursework, I learned about anthropological views on linguistics, including studying how languages develop and investigating schema theory for developing the conceptual framework for language learning.

When I shifted my focus to education, and then classroom teaching, I brought with me my interest in linguistics and language development. I was able to experience firsthand how children process, develop, and use language at all stages, from infants babbling, to toddlers' short utterances, to the interactions of 3-4 year-olds. I was also struck by the levels of variation within just one classroom, and how those variations could affect classroom dynamics. It was always a little disheartening to see a child left out of play or feel rejected because he/she couldn't keep up with the conversation or communicate properly.

Based on my background and experiences, I was particularly fascinated by the article written by Mashburn et al. (2009) that seemed to mirror my interests and ideas on peer interactions in the classroom. Mashburn et al. confirmed for me that peers were not just important for creating friendships and developing a sense of belonging, but an essential source for language learning and development. Their study also suggested the idea that who each child is interacting with and how much made an impact, an idea I had not previously considered. I started thinking about these ideas through my own lens as a

teacher, considering whether there were things I could do in the classroom to help support children's language interactions with each other. However, I felt I needed more than just analyzed scores. My first instinct was to think of possible interventions I could put into place in my own classroom based on the ideas presented in Mashburn et al. and Justice et al. (2011). But how could I ensure that my interventions would focus on the right interactions or target the right areas for improvement? I decided that I needed more information about the peer-to-peer interactions in the classroom without experimental manipulations. This information may be able to provide the insights needed to create the interventions I had first imagined, and strengthen my abilities as a teacher to close an early achievement gap that may affect later success in school.

Current Investigation

Research Goals

The studies by Mashburn et al. (2009) and Justice et al. (2011) have highlighted an area of need for research addressed by this study. Both in the findings and in the limitations of Mashburn et al. and Justice et al., there were calls for more information about how much children are using language in the classroom, as well as the nature of their language interactions. One way to examine a part of children's language development is to collect data on the talk they are engaging in with peers. The purpose of the current study was to observe preschool children of both high and low-level language scores in their classroom, to gain more insight into the talk that is happening and provide information for developing supports for the children that are falling behind.

Research Questions

Mashburn et al. (2009) and Justice et al. (2011) highlighted the fact that peers have a significant impact on each other's language development, but that there is something going on at the day-to-day interaction level that is keeping a certain population of children from experiencing greater success. This study focused exclusively on the talk occurring between peers, and examined the following questions:

- Are children with low-level language scores engaging in talk less than children with high-level language scores?

- What is the nature of peer-to-peer interactions, with regard to genres of talk, for children with high- and low-level language scores?

Methods

Research Design

This was an observational study that utilized descriptive data to provide a more detailed picture of what is happening in peer-to-peer talk in a classroom. Classroom participant observation and audio recordings were the primary sources of data collection. Four students in a pre-K classroom were observed and field notes were taken during these observations. Analytic memos following the observations were also written.

Research Site

The school. For this study, the activities of children in a pre-Kindergarten class (age 4) were observed. The classroom is located in a public charter school in Washington D.C., serving children and families from preschool (age 3) to grade 6. Students at the school mostly identify as White/Non-Hispanic (41 percent) and Black Non-Hispanic (41 percent), with 3 percent identifying as Asian, 5 percent identifying as Hispanic/Latino, and 8 percent identifying as multiracial. With respect to socio-economic status (SES), 20.7 percent of students are considered low SES, qualifying for free lunch.

The school's philosophy centers on providing inquiry-based, exploratory learning experiences for young children and using community resources as an optimal learning environment. At the early childhood level, lessons and activities are based on themes and are developed using an emergent curriculum approach. In an emergent curriculum

approach, classroom activities are developed based on the children's interests and specific learning goals. These are determined through data collected by the teacher. In inquiry-based learning, the focus of learning activities is on the experience of the children, rather than a structured lesson from a teacher. The teacher's primary role is to act as a facilitator, asking questions and making comments to help guide learning. Both of these elements support a language rich early childhood environment: the former by ensuring that the children will have interest and want to engage in conversations about the topics, and the latter by encouraging language interactions when working and playing in the classroom. The program centers its learning philosophy around the concepts of developmental theorists like Dewey, who theorized that children learn best through authentic experiences and social interactions, and Vygotsky, who focused on a learning environment structured and supported by adults help students learn. It is with these two models that a learning environment is created that encourages learning through child-centered experiences and peer-to-peer interactions.

The class. The pre-Kindergarten class is the second youngest class in the school, and most of the students have attended the school since the previous year, with a few moving from different schools this year. The classroom is designed for student driven learning experiences. There are areas organized as different centers, which the students can visit freely during center time. There is a dramatic play area that includes a pretend kitchen, plastic food, cooking utensils, and dress-up clothes. The building area has wooden and plastic blocks, legos and a train set. There are also some nearby manipulatives, like dinosaurs, plastic people, and animals, that the students can use

separately, or with the building materials. There is a games and puzzles center, with wooden puzzles, floor puzzles, and some early childhood games, like Hi Ho Cherry-O and Chutes and Ladders. There is also an art center with paper, drawing utensils, glue, and other various art supplies, as well as a reading center with books and pillows and chairs to sit and read. All of the centers include a wide variety of toys and materials, many denote specific purposes (e.g., plastic shaped like play food, dinosaur or animal figures) and others are more open-ended (e.g., wooden blocks, plain paper and drawing materials). In addition to these independent centers, the teachers will sometimes facilitate other activities in the room, such as building robots out of recycled materials, or using clay to create a dish of food. Outside of these teacher-facilitated centers, the teachers will sometimes interact with children in different centers, and sometimes give them space to interact with each other independently. This freedom of movement throughout the classroom, along with the opportunities to play without adults present makes this classroom a strong choice for examining the talk of peers.

The teachers. The lead teacher in the class is Ms. Maron, an experienced early childhood teacher who has been working in the field for 20 years. Ms. Maron is soft-spoken and kind with the students. Whenever a child has something to share with her or show to her, she responds with a compliment on their work and a comment that may help extend what the child is doing. Her behavior management style is similarly calm, quiet, and respectful of the students.

There are two other teachers in the classroom, a teaching resident named Ms. Covey, and a paraprofessional teaching assistant named Ms. Vail. This is Ms. Covey's

first year working professionally with children. She is participating in a two-year teacher preparation program that includes working full time in a classroom with a lead teacher and taking graduate classes. Next year, she will become the lead teacher in her own classroom at another school, and after her second year will receive her full teaching license as well as a Master's degree in education. This is Ms. Vail's second year working in a school setting. The previous year, she worked at the school as a one-on-one classroom aide to a third grade student. Both Ms. Vail and Ms. Covey follow Ms. Maron's lead in giving students space to work with each other while relying on adults, and although Ms. Maron is certainly the most skilled in her behavior management style, both Ms. Covey and Ms. Vail mirror her approach when working with the children.

Access and validity. This particular site was selected because I currently work there, and I have an already established rapport with the school and the classroom teacher. This gave me easy and comfortable access for observations, and because the children in class already know who I am, it did not take them long to become accustomed to my presence. However, this may have presented issues of bias that can affect validity. For example, I may have some previously established notions of how certain children interact with one another, or my familiarity with the curriculum, schedule, and environment may have made me blind to certain occurrences or situations that were important to the research. Also, my role as an established authority figure in the school may have impeded observations. If children were distracted by my presence, they may have acted differently in interactions. They may have felt less comfortable expressing themselves freely if they thought they would get in trouble, or if they were trying to

please me as a teacher. With these ideas in mind I worked to establish myself as an unobtrusive presence. I visited the classroom several times before recording, and sat in places where I could hear but not interfere with the children's play. I also made sure not to step in as a teacher during these visits, until the students grew comfortable with seeing me, but not utilizing me as an authority figure.

Participants

Selection. All children in the class whose families agreed to participate in the study were observed and audio-recorded for data collection. Overall language scores for participants were determined using informal teacher interviews about students and language and emergent literacy scores taken from *Teaching Strategies GOLD*. *Teaching Strategies GOLD* is an assessment tool designed to be used by classroom teachers to evaluate the development and learning of children aged infants through Kindergarten (age six). Teachers collect anecdotal data through observations and performance assessments related to 38 developmental objectives that include physical development, language development, cognitive development, social-emotional development, and early learning behaviors for literacy, math, science, social studies, and the arts. Data collected are used to guide teacher planning, inform differentiation within the classroom, track child progress, and share information with families (www.teachingstrategies.com). Using teacher observations as the main form of assessment can be a very subjective measure. Studies have been conducted on the validity of *Teaching Strategies GOLD* with respect to typically developing children as well as English language learners and children with disabilities (Kim, Lambert, & Burts, 2013, Lambert, Kim, & Burts, 2010). In the study by

Lambert et al. (2010), using teacher ratings with *GOLD* was examined to determine the tools' validity. Teacher ratings of a national sample of 21,592 children (aged 12 months-4 years) were collected using *Teaching Strategies GOLD*. These ratings produced results that aligned with previous research on growth based on age and developmental level, as well as mitigating factors such as gender or children with disabilities (Lambert et al., 2010).

For this study, I used the children's *GOLD* scores in both language development and early literacy to determine whether a child had high- or low-level language scores. A range of scores is provided through *GOLD* for where children at the pre-K level should typically be with these objectives. For language, *GOLD* scores at the pre-K level range from 43-59 with a median of 51. For early literacy, *GOLD* scores at the pre-K level range from 34-70 with a median of 52. In Ms. Maron's class, all of the students scored within grade level for language and early literacy abilities in *Teaching Strategies GOLD*. Children with low-level scores were identified as having scored below the grade level median. Children that scored above the median were identified as having high-level language scores.

After collecting the scores for the children in the class, the selection of focus participants was narrowed down to the four children with the highest language and literacy scores, and the four children with the lowest language and literacy scores. Then, recommendations from the children's current and former teachers were collected, along with basic demographic information. This information included age, gender, ethnicity, and socio-economic status. For socio-economic status (SES), students that qualified for a

free lunch were identified as low SES, and students that did not qualify were identified as mid-high SES. I also collected information on whether any students in the class had individualized education plans (IEP's) for learning or development. One child did have an IEP, and she was excluded as a focus participant, because this study focuses on typically developing children without specialized supports. For focus participants, two children from the high-level language scores and two children from the low-level language scores group were selected, reflecting a range of gender, ethnicity, and SES.

Focus participants. Using the provided criteria, four children were selected as focus participants: Kenny, Wendy, Darren, and Layla. These names and all other names used in the study are pseudonyms for both children and adults. Here is a short introduction to each child.

Kenny. Kenny was chosen as a participant with high-level language scores. He is a white 5-year-old male with a mid-high SES. Kenny's *GOLD* scores were a 57 in language and a 70 in literacy. Additionally, his current and former teachers identified him as an extremely verbal, outgoing and sociable member of the class. His teachers stated that he enjoys playing with many different students and is often the leader of conversation in both partner play and large groups.

Wendy. Wendy was also chosen as a participant with high-level language scores. She is an African-American 5-year-old female with a low SES. For *GOLD*, Wendy scored a 57 in language and a 63 in literacy. The teachers recommended her as well, stating that she speaks frequently to her playmates and usually chooses very social activities.

Darren. Darren was chosen as a student with low-level language scores. Darren is a white 5-year-old male with mid-high SES. Darren's *GOLD* scores were a 48 in language and a 38 in literacy. Darren was described by his teachers as quiet, but comfortable both playing with others and playing by himself.

Layla. Layla was chosen as a student with low-level language scores. She is an African-American 5-year-old female with low SES. Her *GOLD* scores were a 46 in language and a 29 in literacy. Layla's teachers reported that she is a well-liked child that enjoys playing with others, but often chooses not to speak much to them, or decides to play quietly on her own.

Validity. Issues of validity were taken into consideration in participant selection. *GOLD* does collect data on language scores, and these scores are noted on levels of developmental progression. However, *GOLD* data have not previously been used as a measure in isolation for the purpose of a study. Additional information was collected to confirm ability levels including teacher interviews from the child's current and former teachers to establish a consistent view of the high or low scores.

Data Collection

Data collection, including observations and audio-recordings, took place over 3 weeks (i.e., once a week for 1 hour sessions) in the participants' regular pre-K classroom. During observation times, each focus child had a recording device attached to his/her person for the entirety of the session. Each focus participant was also observed for 15 minutes each session. The order in which focus participants were observed changed for each session, to ensure a more holistic picture of how each participant was spending their

time. For example, if in the previous session, I observed one participant at the beginning of center time, then I would make sure to observe him/her closer to the end of center time in the next session. That way, I would have a more varied data set, in case the participant always liked to start centers in a particular place, or it took him/her more time to feel comfortable speaking with other children. Based on the research discussing peer language interactions during play (Corsaro, 2003; King & Saxton, 2011; Smilansky & Shefatya, 1990), I conducted observations during an unstructured playtime. Observations occurred during afternoon “center time,” when children freely choose different areas in the classroom to play, either alone or with peers.

Observations. Peer-to-peer talk of the participants was observed without direct involvement from the researcher. Passive observations provide a rich data source of the frequency, nature, and duration of interactions happening in the classroom. In order to remain a passive observer, but still be able to see and hear talk, I positioned myself close to the participants, usually sitting on the floor or in a small chair near them. I also made sure to point my body away from their activities as much as possible, but in a way that I could still see and hear what was happening. This positioning gave me the access that I needed, but gave the participants a feeling of independence from the observation. During observations I also took notes on nonverbal communications such as gestures and facial expressions.

Audio-recordings. Observations and note taking can provide lots of data. However, much information can be missed, as the researcher is attempting many tasks at once (e.g., watching, understanding, writing) and when one element takes the

researcher's focus another element may slip by without notice. Recording audio of the talk added to data from observations by catching any talk spoken verbatim in a form that could be accessed multiple times and outside of the classroom for greater understanding. Each observation session was audio-recorded for later transcription and analysis. A small digital voice recorder was placed in a shirt that the focus participants wore. Shirts for other students in the class were also available to reduce awareness in the class that some students were being specifically observed and recorded. The recorders stayed with the focus participant and recorded his/her interactions for the entire one-hour session.

Possible validity issues in the data collection process included bias in observation times or bias in the conceptual framework. Center time seemed like a good choice for observing talk, however, I considered that there was important talk occurring at different times of the day, and that children may behave differently at different times or doing different kinds of activities. Before starting the recording and observation process, I visited the classroom during different activities and different times of day to ensure that center time provided an accurate picture of how each focus participant is talking. These visits included outdoor play time, circle time, and transition times, such as visiting the bathroom or when walking in lines. Circle time provided the least amount of peer talk, as the class was expected to focus on listening to the teacher reading or leading a discussion. There were many conversations happening during outside times and times of transition. However, transition times were not as long and were often interrupted by logistical activities, such as going to use the bathroom, or listening to instructions. Outside time was more difficult to observe and not as long a time period as center time. These

observations confirmed for me that center time was an appropriate time for observations. Additionally, I sought the teachers' opinion on a good time of day to conduct this type of research. All three teachers in the classroom agreed that center time was an appropriate time to collect data.

Data Analysis

Data analysis was conducted simultaneously with data collection and interpretation. For this study, the amount of talk participants were engaging in was determined using the overall word count of the transcribed recordings. The nature of talk was determined by categorizing the talk of the focus participants into the genres of talk outlined by Clark (2009). Clark established that these genres are essential for successful language interactions, and therefore may provide important insight into what kinds of talk are most beneficial for language development. These genres of talk are: being polite, asking questions/giving justifications, being persuasive, resolving conflicts, giving stage directions, school talk, and telling stories.

After each participant's session was transcribed, a randomly chosen, one-hour sample of each of the participants' talk was coded in the genres of talk. In the transcription, any length of speech or vocal sounds made by a participant without pauses, or with pauses that were not interrupted by another person's talk was considered a unit of child talk. These units were coded into the different genres. Within each unit, more than one genre sometimes occurred. In these instances, the talk in the unit was divided and coded into separate genres. Each unit or partial unit was coded for only one genre. After each unit or partial unit was coded, the frequency of occurrence for each genre was

determined by calculating the percentage of the genres occurring in the one-hour sample. This was done first with all of the participants' samples put together and then with each participants' samples individually. The frequency of occurrence for each of the genres helps to determine how often the participants are utilizing the different genres. This may provide insight into the strategies the participants are using to engage in talk with their peers. However, because this study is focusing on the element of talk in language development, it may also be important to examine which of the genres are generating more or less talk. For frequency of occurrence, a two-word statement, and a ten-word statement would both be counted as one occurrence if they were used for one genre. Those two statements would be quantified differently with word count, showing that although the genre may only be used once, it is generating more talk. The amount of talk for each genre was also determined by counting the words within each of the incidences of these genres. The word count for the genres was first examined by aggregating the counts for all four participants for each of the genres, then by examining the word counts separately for each participant in each genre. Keeping in mind the definitions given by Clark for the different categories, my rationale for each of the different genres is included below.

Being polite. Being polite included direct requests or statements using a calm, polite tone, using please and thank you, or any talk that alluded to taking turns. Using these guidelines, there were some being polite units that were asked in the form of a question. If a question was asked using a polite tone, or included please ("Can I play with

you?” “Can I get a snack too, please?”), I counted this as being polite, because it contained specific markers of polite speech.

Asking questions or giving justifications. Questions were categorized as talk that conveys a request or a wondering, and with the intention of eliciting a response. They also contained the specific markers of a question; such raised vocal pitch at the end of a statement. Two exceptions arose from these general stipulations. The first was noted in being polite. The second occurred in the genre of telling stories, because in these instances, the question was being asked in the voice of a character.

Giving justifications included any statements that gave an explanation or a justification for a question asked (“The water makes the apples not turn brown”). These two concepts may be considered two parts of the same genres (i.e., wondering about something, and having an answer for the wondering). However, in my analysis, I found most questions asked consisted of simple requests, (“Where are the eggs?”) or seeking confirmation about activities, roles, or objects during play (“And then we’re going to pour it into here right?” “A bunch of rocks, right?”). Because of this, I separated asking questions and giving justifications into two separate categories for analysis.

Being persuasive. I counted this as any unit or partial unit that was said seemingly to meet that child’s personal preference or want, but was not a direct question (“I need a bunch of sand”) or statements that are a reaction to something else that helps protect the child’s feelings or ego (“That’s how much more minutes we need!” –in response to another child telling him he only has 5 more minutes at that choice).

Resolving conflicts. Talk coded for resolving conflicts included direct requests (“Ew! Don’t throw it at me!”), or statements during an argument or a discussion that expressed opposing viewpoints (“That’s my spot!”) Resolving conflicts and being persuasive have some common characteristics. To separate these two genres, I coded talk as resolving conflicts if the talk was in opposition to another child’s opinion and resulted in an argument or a negotiation. Being persuasive was talk that expressed opinions or feelings that were not directly opposed by others.

Giving stage directions. Statements were coded as giving stage directions when a child used talk to identify a role during dramatic play (“I’ll be the mama this time”), identify a constructed object for the benefit of social acceptance (“Pretend this is the mixer”), or narrate actions or ideas for or during play (“if you touch this laser it will get your bones on fire”).

School talk. These were any discussions that centered on a teacher-facilitated activity that the students were working on, like filling in a story chart and narrating the plot for dictation.

Telling stories. I coded statements as telling stories when they included any references or talk about pop culture, things that happened at another time and place (but not a part of a teacher facilitated activity), and talk that was in character during play.

This coding structure was used to note any similarities that emerged for all of the focus participants’ use of the genres, as well as any differences that emerged between the participants with high-level language scores and participants with low-level language

scores. Throughout the process, I worked to maintain intra-rater reliability by writing descriptive notes on how I was defining and categorizing the genres, as well as checking my sorting multiple times.

Using Clark's genres as a coding structure was concretizing the abstract conceptualization of another researcher. Because of this, the process was at times vague or difficult to determine, and I made a number of decisions in working out the coding system. In determining the unit of child talk, I had to decide where units stopped and started. Often, the children in the class would talk over each other, or have long, drawn-out statements containing many different ideas or genres. I had to determine whether these complicated statements would be coded as one whole unit that could be put into many genres, or separated into smaller pieces that only fit into one genre. For this, I chose to divide a unit of talk into partial units, and coded them into the genres, based on what I determined was the overall purpose of the talk. For example, if within one unit, a child asked another child to play a specific game, and then stated what his or her role would be in that game, I determined that was a unit that could be divided into partial units, with one unit coded as a question, and one unit coded as a stage direction.

I also chose to keep the genres mutually exclusive, so each unit or partial unit was only placed into one genre. Even after determining if and how the units were divided into partials, there were some units that might have been able to be put into different genres. An example of this could be two children resolving a conflict in the voices of characters during play. To determine the genre for each unit or partial unit, I again examined what I thought was the main purpose or the outcome of the talk. For the previous example, if the

children are speaking in the voices of other characters, this would seem to be a conflict that is part of the play, and is included for the purpose of telling stories more than the purpose of resolving a conflict.

With these determinations in mind, some genres were easier to categorize than others. Overall, the genres that included specific word markers, or had a clearly identifiable purpose were the easiest to code. Being polite, for example, was usually easy to code, because those units contained “please” or “thank you” or had a specific inflection. Giving stage directions and telling stories were also usually easy to identify, because their purpose was very concrete and tangible. They were talking about the materials they were using or specifically identifying the role that they would play. With these criteria, it would also seem that asking questions was an easy genre to identify. Questions have a specific inflection, and usually have an easily identifiable purpose. During the initial coding process, identifying questions did seem easy. However, during closer analysis, some difficulties arose in whether the identified unit or partial unit was really asking a question, or simply added a very short question on to another genre. Because this difficulty arose more during the analysis than in the original coding process, it is discussed in more detail in the discussion section.

After determining the frequency of occurrence, as well as the amount of talk for the genres, I examined some of the talk in-depth to note any emerging trends. I explored a few samples of each of the genres for all of the participants, looking at the talk from others as well as the participants themselves that occurred before and after the sample. I carefully considered the activities that were occurring, and wrote a detailed narrative of

what was being said as well as what that talk seemed to accomplish. Within this, I looked at any purposes or activities that happened, noting a few similarities of use between some of the participants. All data analysis was triangulated through conversations and input provided by the classroom teachers. The teachers were informed of findings to determine if analysis by the researcher matched the impressions of the teacher.

Self as Researcher

As a researcher, I brought to this project previous experiences and training that helped to inform my work, but could have also lead to potential biases. I am a young, white woman from a middle-class family background that was formally trained in teaching techniques for a traditional United States school system. Because of this I place a strong value on speaking often and at length, as is typical in the United States (Rogoff, 2003). My ideas on language and how to understand it is culturally biased towards these values, but it is also important to consider that not all cultures see frequent, wordy interactions as positive.

Also, my previous experiences working with young children give me some pre-formed notions of what language is, and my training as a teacher shapes what I expect to hear from preschool-aged children. I have been working at the research site for over two years, with its previously mentioned demographics. Before this, most of my work was in schools with children whose backgrounds and closely mirrored my own (families identifying as white, with a middle to upper socio-economic status). This background may lead to me expecting certain topics or ideas to come up in conversations, and for me to see them as important because they are familiar to me. However, it may be that

children from more diverse backgrounds may focus on other topics or ideas during conversation. My years of hearing similar interactions between children may also lead me to place context or value on things being said that are not intended by the speaker. For example, I know from my experiences in the classroom that children spend a lot of time talking about their birthday parties, even when their birthday is months away. I have seen many children use their birthday parties as a symbol of power, where verbal invitations have been given as rewards or taken away as punishments. Hearing a child talk about their birthday party brings up a lot of these connotations for me, and I may tend to place some importance or context on that interaction that was not intended. I strived to consider these and more of my own conceptual understandings that I have built through my background as I examined the talk of others.

Findings

In the findings section, I address my two research questions by analyzing the amount of talk of the participants and their genres of talk. The amount of talk was determined by comparing the average word count for the focus participants with high-level language scores and the average word count for focus participants with low-level language scores. For the second research question, the genres of talk were coded and analyzed for their amount of talk based on word count, as well as their frequency of occurrence based on each incidence of the genre. Two of the genres that accounted for both the highest amount of talk as well as the highest frequency were then examined. Examples of the genres were explored, focusing on more and less successful strategies for using the genres as well as differences in use for the participants with high-level language scores (Kenny and Wendy) and participants with low-level language scores (Darren and Layla). Findings from both questions provide information that may be useful in supporting children's language development.

Amount of Talk Amongst Peers

My first aim was to examine if children with low-level language scores were simply talking less than their peers, and therefore taking fewer opportunities to practice their talking in class. I originally hoped to do this through studying their conversational turns as discussed in King and Saxton (2010). However, discerning conversational turns

proved to be difficult for two main reasons. First, the children in class would often talk all at once, making it difficult to determine when one turn stopped and another began. Second, the children would often say things that seemed unrelated to each other, sometimes making it hard to distinguish a back-and-forth conversation. Because of this, I considered other possibilities for determining if children with low-level scores were talking less than children with high-level scores.

After transcribing the recordings, I noted that the sheer length of the transcripts of the participants with high-level language scores was remarkably different than that of the participants with low-level scores. Because of this, I conducted a word count for all of the transcripts, including just the participants' talk. The average words per hour for each participant are noted in Table 1.

Table 1: Participant Data

	Participants with high-level language scores		Participants with low-level language scores	
	Kenny	Wendy	Darren	Layla
GOLD language score (range: 43-59, median: 51)	57	57	48	46
GOLD literacy score (range: 34-70, median: 52)	70	63	38	29
Audio-recording time (hours:minutes) ^a	3:00	3:00	3:00	3:00
Observation time (hours:minutes) ^b	0:45	0:45	0:45	0:45
Average page length of transcripts (range)	18 (17-19)	21 (19-22)	11 (9-15)	10 (7-13)
Word count (1 hour sample)	1193	1444	748	394

^aRecordings were taken during three, one-hour sessions.

^bStudents were observed for 15 minutes during each one-hour session.

Table 1 shows that both of the participants with high-level language scores had higher word counts than the participants with low-level language scores. When examining the averages of the participants grouped by high and low, the participants with high-level language scores spoke more than twice as much as the participants with low-level language scores. Kenny and Wendy used an average of 1319 words per hour, compared to Darren and Layla, who averaged 571 words per hour. With these results in mind, there does seem to be a difference in the amount of talk participants with high- and low-level language scores were using. The next step was to examine the content of this talk, and

explore what genres might be effective for stimulating the talk that is happening in the classroom.

Genres of Talk During Peer Interactions

For the second research question, I examined what the participants were saying focusing specifically on the genres of talk outlined by Clark (2009). Utilizing different genres of talk in their speech allow children to more successfully meet their varied goals and interests in preschool. It also provides a structure for understanding their interactions. Below is a section of dialogue from a participant's transcript, with the genres of the focus participant's dialogue identified in brackets after each unit or partial unit. For pieces of the transcript included in this section, the focus participants' talk and actions are presented in bold.

Example 1. Wendy and Charlie were playing in the dramatic play area. Charlie was a preferred playmate for Wendy. She followed him over to this area and engaged him in conversation about the toys that were present. Wendy had put on a dress from the dress-up clothes, and Charlie was looking through the play food.

Wendy: Charlie! Wanna play Anakin and Padme? [Asking questions] I'll be the mama this time, now we're gonna play regular family. So I'm the mom, I'm the mom, and dad. [Giving stage directions]

Donte: There's supposed to be 4 people

Billy: I wanna play here.

Wendy: I bought some eggs (opening carton) [Giving stage directions]

Donte: Ms. Vail, Ms. Vail, Billy's in dress up and there's only 4. Now there's 5.

Wendy: Let me count the eggs, [Giving stage directions]

Wendy and Charlie: 1,2,3,4,5,6 [Telling stories]

Charlie: I already know there's six.

Donte: You can't be in the dress up, you have to put your name up for dress up.

Wendy: Now let's just play regular family. [Giving stage directions] Ew foot (unclear) honey [Telling stories]

Charlie: Ew. Stop. Stop.

Wendy: Ew this is their foot (unclear) sweetie. [Telling stories]

Charlie: Don't call me sweetie, it's Anakin, ok?

Wendy: This is a foot (unclear) Anakin. [Telling stories]

Charlie: Ew.

Wendy: Ew, don't throw it at me! [Resolving conflicts]

Charlie: Yes you did and I don't like it. Don't. Stop it.

Wendy: No I didn't. Oh! (laughing) [Resolving conflicts]

In this example, some of the units fall under just one genre. For example, “Let me count the eggs” was one unit with one statement that was giving a stage direction. However, there were other units that split into two genres. When Wendy asked Charlie to play Anakin and Padme, she was asking a question, the rest of the unit was statements about her role in the play, which fit into giving stage directions. Overall, the genres seemed to describe most of the participants' talk well. There were some examples of each of the genres included in all of the participants' talk, although some genres were used more frequently than others.

Amount of talk by genre. I examined the amount of talk for each of the genres of talk by coding and analyzing a one-hour transcript from each of the focus participants (i.e., total of four one-hour transcripts). Figure 1 shows the amount of talk for the different genres of talk in the transcripts by word count.

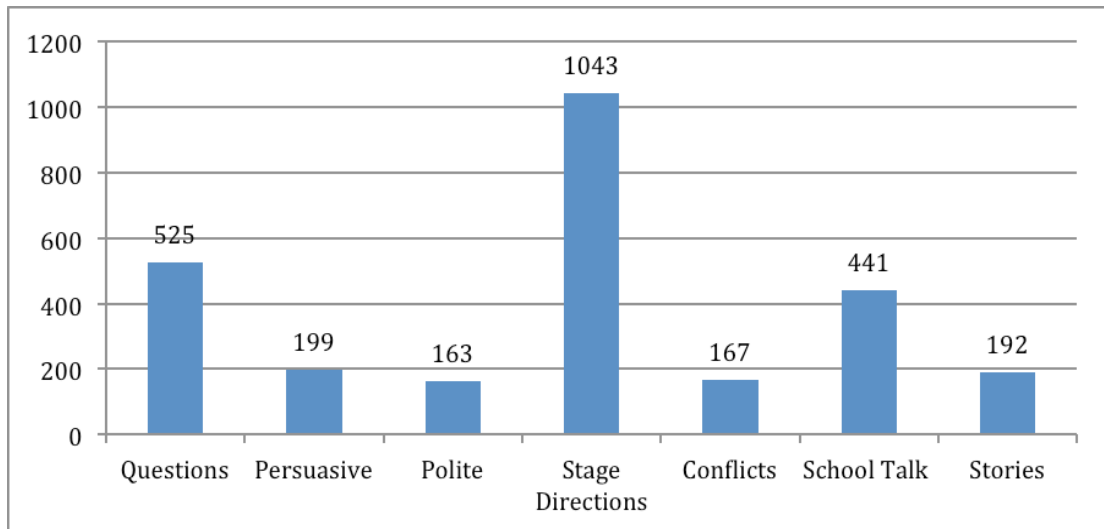


Figure 1: Word counts by genre.

Figure 1 shows that giving stage directions accounted for a large amount of the talk, using nearly twice as many words as the next highest genre, asking questions and giving justifications, with school talk close behind it. The rest of the genres are all close in the word count with around 150-200 words each. These results are supported by looking at the frequency of occurrence for the genres by statement. Figure 2 shows the frequency of occurrence for all of the genres in percentages. Again, giving stage direction is the highest genre, accounting for 31% of the talk, and giving stage directions next with 23%. For the genres with less talk, there were some small trends that emerged. The genres with more talk provided more insight into how the participants were using their talk.

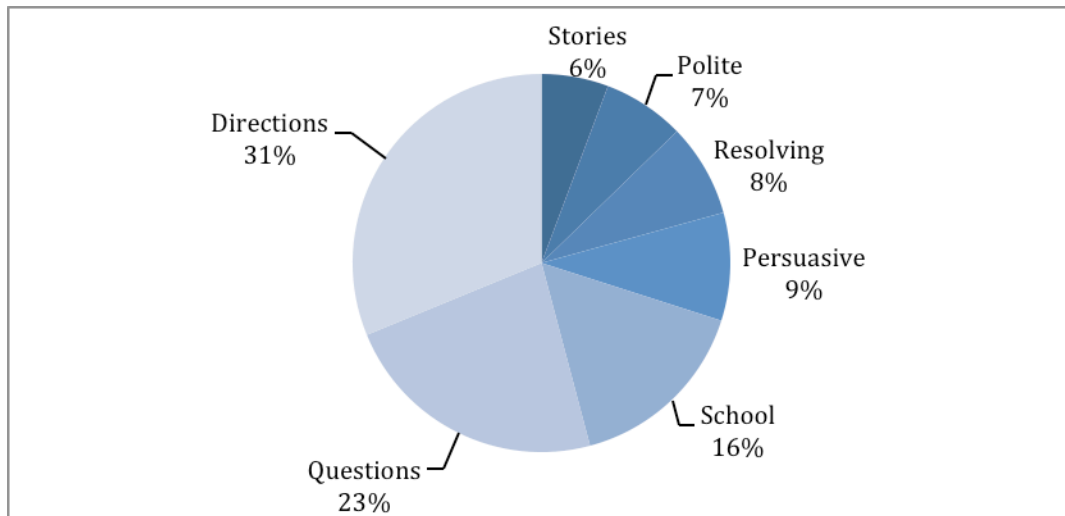


Figure 2: The frequency of occurrence of genres.

Trends in the genres with less talk. The less frequent genres included being polite, being persuasive, resolving conflicts, telling stories, and school talk. Most of these genres occurred very infrequently and had smaller word counts, with only 150-200 words per genre. School talk accounted for slightly more, with 441 words; however, its use did not primarily focus on peers. Discussion of this, as well as some of the smaller findings in the less frequent genres is addressed in the following section.

Being polite and being persuasive. In being polite, most statements centered on direct requests to play, and very few contained the words “please” and “thank you,” words that are typically associated with politeness. This would seem to suggest that being polite as it has been defined here is not a genre of talk that has not fully developed in the participants. They also tended to be questions or requests that elicited short, closed ended responses. Statements like “Can I go after you?” or “I need that marker (pause) thank

you” were responded to with a “yes” or handing over the marker without talking. Such instances did not seem to be influential on the talk amongst peers.

Similar to being polite, being persuasive was another genre that did not elicit many responses. Most of the statements in being persuasive were a reaction to a statement or an action against which the participant wanted to guard themselves. For example, Wendy stating “Yuck! I hate that color” in response to another child getting to write his name on the board first, or Kenny stating “That’s how much more minutes we need!” after being told that he could only have one more minute at the center where he was playing. In most cases, the participants used being persuasive as a way to protect their own feelings, and did not expand much beyond the one statement.

Resolving conflicts and telling stories. When I originally decided to examine the genres of talk, I anticipated seeing a lot of talk that fit into the resolving conflicts genre. My original thinking was that there would be a significant amount of verbal negotiation when the children did not agree or had conflicting desires. However, there were few arguments or issues that arose, and the ones that did arise were resolved very quickly and did not create a source for large amounts of talk. Reasons for this could be in the selection of the participants. Because the study focused specifically on students that talked more and students that talked less, I may have ended up with participants that either had a strong interest in being very social and talked a lot, or students that avoided social interactions so they talked less. Both of these groups might have an interest in avoiding conflict. For the participants with high-level language scores, conflicts might make other children not want to interact with them, and hinder their socializing.

Participants with low-level language scores might avoid conflict simply by not engaging in the talk that creates arguments. These reasons may explain why conflict could be a source for lots of talk within a classroom, but does not account for much of the talk for these participants.

I was also surprised by the talk that fit into the telling stories genre. Because center time gives the children so many opportunities for symbolic and dramatic play, I anticipated a lot of talk that told a story or talk that was in the voice of a character a child was playing. However, most of the talk during play centered around establishing scenarios or choosing roles, which fits into the giving stage directions genre. Often times, when a participant would use a voice in character or start to tell a story, the response they would get would be a stage direction. In example 1, Wendy uses the telling stories genre in her play (“Ew this is their foot (unclear) sweetie.”) Charlie then responds out of character, giving her a stage direction (“Don’t call me sweetie, it’s Anakin, ok?”). After that, Wendy does go back to speaking in her role, but then her character throws something at Charlie, which creates a conflict. The conflict then leads them to another center and their talk with telling stories are done here.

School talk. For the genre of school talk, almost all talk in this genre was spoken in discussion with a teacher. Given that the purpose of this study was to examine peer talk, school talk did not play a significant role in the analysis and findings presented here.

Trends in the genres with more talk. Figure 2 clearly shows that giving stage directions and asking questions/giving justifications occur more frequently than the other genres. This frequent use indicates that these genres may play a significant role in the

focus participants' talk. A close examination of how asking questions/giving justifications and giving stage directions are utilized in play provided evidence of successful strategies for promoting talk.

Asking questions and giving justifications. Asking questions and giving justifications was the second highest in both word count and frequency of occurrence for the participants overall (Figures 1 and 2). In looking at the word count for each participant, three of the participants, Kenny, Wendy, and Darren, all show a high word count for asking questions and giving justifications, as shown in Figure 3.

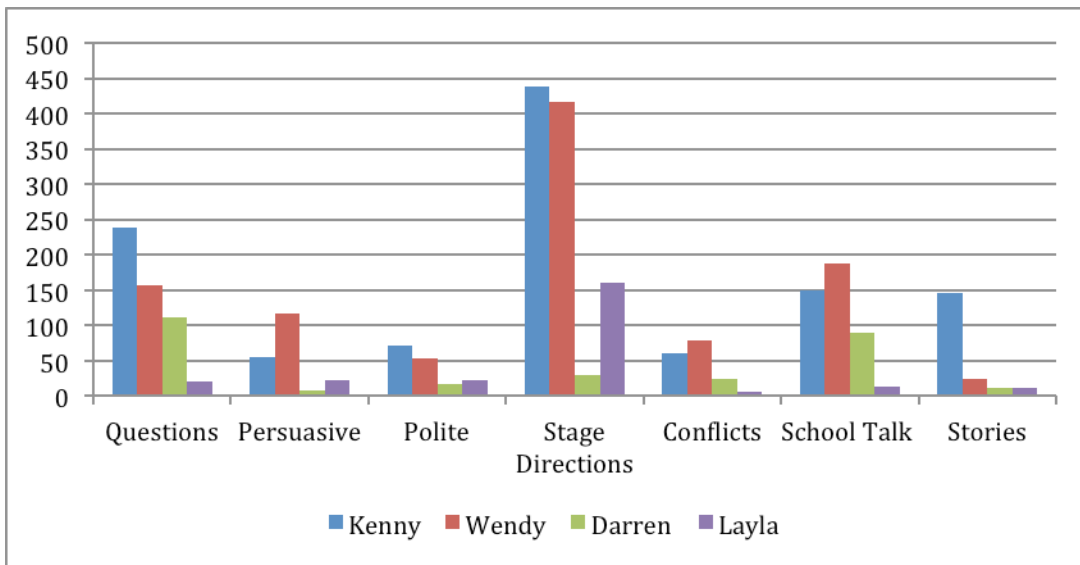


Figure 3: Word count per participant by genre

Layla's amount of words for this genre is low, but she is also the participant that talks the least. Figure 4 shows the frequency of occurrence for the genres by each participant in percentages of their genre use for their one-hour sample. This figure shows

that although the amount of words used in this genre for her was low, it was still one of the highest genres she utilized after giving stage directions. Asking questions/giving justifications and being persuasive both accounted for 13% of Layla’s genre frequency, making them both the second highest after giving stage directions.

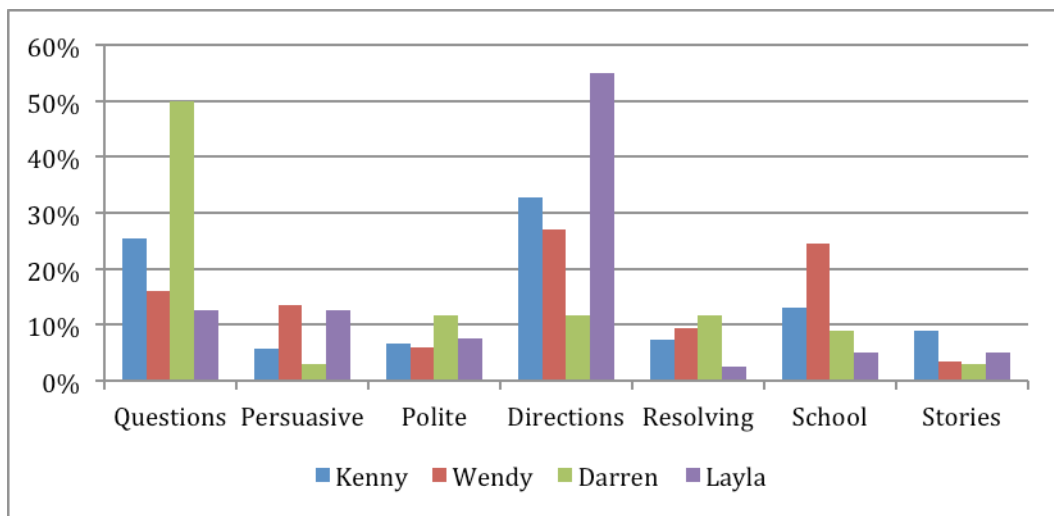


Figure 4: Genre frequency for each participant.

Considering the word count and frequency of occurrence for the genres, asking questions and giving justifications accounted for a large portion of talk for all four participants. In my determinations for coding, I noted a difference between the asking questions and the giving justifications pieces of this genre. Therefore, during my analysis, I separated the talk into asking questions and giving justifications and counted the frequency of genre occurrence within the coded transcripts. Asking questions accounted for 82% of the frequency of occurrence, and giving justifications was only 18% of the frequency. Similarly, in the word count, asking questions accounted for 452 of the words

used, and giving justifications only accounted for 73. Because most of the talk was the participants asking questions, I focused my analysis on the questions portion of this genre.

I examined all of the focus participants' questions individually. Below are examples of questions from the focus participants that produced some of their richer, lengthier talk. The purposes and results of the questions presented here had some similarities and some differences.

Example 2: Kenny asking questions. On this day, Ms. Maron had asked the class to create story by drawing pictures and dictating words to a teacher. Kenny and another child, Harriet, were working on this project at a table. While Kenny was drawing he remembered a favorite story of his, *James and the Giant Peach*. This was a story they read in class, and one he saw as a movie on his iPad. He then engaged Harriet in conversation about the story.

Kenny: Do you have James and the Giant Peach? I do.

Harriet: Well... yeah.

Kenny: For real. And I know what happened to him the um, peach rolls into the ocean. And you, you....

Harriet: (laughs) Yeah! It fell into the ocean!

Kenny: Yeah! And it goes over on Spike and Aunt Sponge's car! (laughs)

Here Kenny used a question ("Do you have *James and the Giant Peach*?") to establish common ground with Harriet and invited her to share about something that interested him. After it is established that both children know the story as a movie that they had watched, they enjoyed a funny moment. In this interaction, Kenny used talk to describe details in the movie (peach rolls into the ocean, it goes over Spike and Aunt Sponge's car). The question gave Harriet entry into the conversation and allowed Kenny to practice

responding and expanding upon an idea he presented. This conversation also generated ideas for a later discussion of other movies or shows that Harriet and Kenny watched on their iPads. They talked about the show *Peg + Cat* and another child, Billy, joined in the conversation, noting that he had this movie as well. Kenny's question created many opportunities for him to talk with others.

Example 3: Wendy asking questions. Wendy, Tasha, Harriet, and Molly were playing in the kitchen area, using the dress-up clothes and bags. The four girls had been negotiating who got to play the mom in the scenario. All of them agreed that Harriet could be the mom. Then Molly stated that she was Harriet's son.

After that Wendy asked a question about her role:

Wendy: Can I be a girl?

Harriet: Yeah, you can be a girl.

Tasha: I'm gonna be a...

Wendy: It's my birthday!! It's my birthday now, so I have to go to the, I have to go to the store with my girlfriends. It's myyyy birthday!

Wendy used a question ("Can I be a girl?") to establish her role in the play scenario. She decided that she wanted to be a part of this play, and determined a role for herself. In this case, the question served as a way for Wendy to ensure that she was accepted into the play with the other participants. Once she received that confirmation (from Harriet, "Yeah, you can be a girl") she elaborated on her role and generate ideas for what she did during the play ("It's my birthday now... I have to go to the store with my girlfriends.")

Example 4: Darren asking questions. Darren and Molly were building with legos in the blocks area. Molly had already started building something before Darren had arrived, and now he was helping her with her structure. Molly began the

conversation by commenting on previous behaviors that have been redirected by her teachers.

Molly: I don't want to be so bossy today. I don't want to make you guys cry. I don't like to make people cry.

***Darren:* I don't like... Let's pretend that that's, that's a big, huge, huge garden. Right?**

Molly: Yeah

***Darren:* And the flowers were growing.**

Molly: Mm hmm. Cause it's a maaagic garden.

***Darren:* Yeah, and it, and the garden was magic. The garden was...**

Molly: ... We'll call it the magical garden, nobody can go in there.

***Darren:* Yeah, no one can go in. Oops! In the, in the magical...**

Molly: ... in the magical garden Darren...

***Darren:* ...but then, one of the flowers died, right?**

Molly: Mmm.

***Darren:* Right?**

Molly: Yeah. Now let's start.

Darren began to comment on Molly's previous statement ("I don't like...") but then changed his mind and instead asked a question that focused on their play and generated an idea ("Let's pretend that that's, that's a big, huge, huge garden. Right?") Similar to Wendy, after he received confirmation of his idea for play from Molly ("Yeah") he elaborated on his original idea ("the flowers are growing," "the garden was magic," "one of the flowers died") and he and Molly had many back-and-forth exchanges about the structure they created.

Example 5: Layla asking questions. Layla was playing in the sand table with Kenny. It was the start of center time and they had both just arrived at the table. Both children were scooping the sand into and pouring it out of different containers, as well as making little piles that they patted down. Kenny then suggested that they use the sand to pretend to bake.

Kenny (to Layla): We're gonna make a cake.

***Layla*: Ok. sooo... put one thing in there...**

Kenny: You put them in there, I put them in here, ok?

***Layla*: It's the baller-relly... you stir in here and you put some more in there, ok? Kenny?**

Kenny: You gotta get as much rocks.

***Layla*: A bunch of rocks, right?**

Kenny: There's a bunch of rocks right here.

***Layla*: There are more rocks right here.**

In this instance, Layla used questions to confirm play ideas established by the child she was playing with. Kenny asked her a question ("You put them in there, I put them in here, ok?") and she repeated the idea in her own question ("you put some more in there, ok Kenny?"). It happened again when Kenny gave her a command ("You gotta get as much rocks") and she asked a question repeating his idea ("A bunch of rocks, right?"). The questions in this example had a slightly different context, but their purpose was the same. They invited Kenny to continue to interact with Layla, and allowed her to elaborate on ideas ("It's the baller-relly, you stir in here and you put some more in there, ok?")

In the examples from Kenny, Wendy, and Darren, the participants used their questions to help create the play scenario or establish their role within the play. In these ways they were making themselves integral pieces of the play that was happening, and sustained their interactions with their peers. These acts of entering play and sustaining the play interactions seem to be essential elements in providing opportunities for using talk. If a child cannot stay a consistent part of the play, he/she loses their reason for talking with peers during these times. I next considered these ideas through the lens of differences between the participants with high-level scores and the participants with low-level scores.

In these examples, Kenny and Wendy (i.e., participants with high-level language scores) used questions to make themselves an integral part of the play or discussion. They generated ideas and kept the talk going (“I have to go to the store with my girlfriends,” “I know what happened to him”), and these ideas invited other children to engage with them. Darren and Layla (i.e., participants with low-level language scores) had instances with less success when asking questions. The previous example for Layla showed that although she does use questions to sustain play, it was mostly in the form of repeating ideas rather than generating new ones. In the case of Darren, the previous example showed that he had been able to successfully make himself an integral part of play as well as generate new ideas, but from my observations, he was not able to do it as frequently as Kenny or Wendy. In fact, Darren had a few less successful attempts when asking questions:

Example 6: Darren asking questions less successfully. Darren had just finished working on writing a story with Ms. Maron, He looked around for a center to join and saw Susan and Miles playing a board game that Ms. Maron had just brought to class. The game involved moving a sliding mechanism that dropped letter tiles onto a tray. Susan and Miles were loading letter tiles into the mechanism. Darren talked to Miles to try and join the game.

Darren: Ok. (Pause) Whoops! What are you playing? The new Zynco?

Miles: No. I’ll tell you what we’re playing after um... (unclear) alright, so, you gotta pull that over, and then there’s letters, see?

Darren: Yeah, um, how do you know which letters go here?

Miles: You gotta, you gotta take a board. And um, and, try to spell a word, ok?

Darren: Ok, hm...

Miles: Ok, get it?

Darren: The three letters?

Miles: I got E... (unclear) and if you don't want it, you pull this up, you put them back. OK? Your turn.

***Darren:* To, to pull this back?**

Miles: No, you pull it like that. Ok?

***Darren:* Oh.**

Miles: (unclear) back in... I do it, I do it

***Darren:* You told me that I get to do that!**

Miles: No, I get to do it, it's my turn.

***Darren:* Well I never got a turn!**

Miles: Yes, Darren...

***Darren:* I did not!**

Miles: Fine, I'm not playing with you, you can play it by yourself. (Miles leaves)

In this instance, Darren asked many questions during play ("What are you playing?" "How do you know which letters go here?" "The three letters?") Playing a board game like this may not have been a scenario where Darren could generate new ideas, but it did have an opportunity for Darren to establish an integral role in play. In this case, it was as a competent player of the board game. Darren failed to do so and even ended up as an obstacle to successful play, protesting his level of participation in the game ("You told me I get to do that!" "Well I never got a turn!") After that, the other child left, and Darren lost his opportunity for conversation.

The examples provided here show that children can use questions as a successful strategy for entering into and sustaining play that supports peer talk. Questioning invites peers to talk with the participant, gives him or her opportunities to elaborate on or expand ideas, and begin conversations with multiple exchanges. All of these are ways that a child can practice and improve upon his or her talk. Also, the examples show that how the question is used can play an important role in the talk. Questions can help establish an integral role in and sustain play, and this sustained play provides more opportunities for talk. One common way that the participants were able to sustain their play was using their

questions to generate new ideas for their peers in play. However, generating ideas was not exclusive to questioning. Next, I examine another genre of talk that seems to help generate ideas.

Giving stage directions. Clark (2009) describes giving stage directions as children describing their play or sharing their ideas and actions through talk. Similar to asking questions, Figure 1 shows that giving stage directions accounted for a large amount of the talk overall. In looking at the word count and frequency of occurrence for each participant in Figures 3 and 4, the data show that the participants with high-level language scores (Kenny and Wendy) have similar results for both the word count and the frequency of occurrence in this genre. The participants with low-level language scores however (Darren and Layla) have very different results. Darren had the lowest word count and frequency of occurrence for giving stage directions, whereas Layla had the highest word count and the highest frequency of occurrence, relative to her other genres. Given these results, it might be assumed that Kenny, Wendy, Layla are utilizing the giving stage directions genre in a similar way and experiencing similar successes. However, if Layla's use of stage directions is compared to Wendy's, the data show that these two participants are using their talk very differently.

During her play, Wendy often described her actions to others and shared her ideas, seeking verbal confirmation from her playmates in order to continue with her play and elaborate on her ideas. The following is an example of her use of stage directions.

Example 7: Wendy giving stage directions. Wendy and some friends were building with magnetiles. Wendy had just finished a constructing a spaceship and

was describing the different parts to her friends. She started by pointing to the triangle on the front of the construction and identifying it as a laser.

Wendy: This is going to be a laser too! This is... I'm going to be a laser also.

Charlie: Awww! She has a laser too!

Wyatt: Wow.

Wendy: But it's just a different laser.

Wyatt: You made a laser? Wow. Wow Wendy.

Wendy: I'm not really a laser, but I'm just pretending like I am one.

Here Wendy had constructed something on her own, but chose to include other children in her play by offering some stage directions of what she had made (“This is going to be a laser too!”) In sharing her ideas with her playmates, Wendy received verbal confirmation of her object (“You made a laser? Wow, wow Wendy”) and her construction was accepted by others. After that, Wendy began to elaborate on her creation and continue to interact with the other children. Her talk about her laser continued later as well.

Example 8: Wendy giving stage directions continued.

Wendy: Do you know what? If touch this part, if you touch this part, you will burn yourself.

Charlie: Oh!

Wendy: This part is the laser. These two lines, if you take this, touch this part of the laser, this part of the laser is really hot. And you will burn yourself like that.

Wyatt: You will burn your selfie!

(Charlie laughs)

Wendy: You will really burn yourself if you touch that part. We gotta move all of these things up. Right?

Charlie: Up.

Wendy: Yes.

After her playmates' initial acceptance of her constructed object, Wendy then went into great detail about her work. She added more description about how the object worked (“If you touch this part you will burn yourself”), noticed physical details of the toy she was

using and described them in the context of her play (“These two lines, if you take this, touch this part of the laser...”). She also generated a new idea that furthered the play with both a question and a stage direction (We gotta move all these things up. Right?). She received another verbal confirmation for this idea and their play continued. In these interactions, Wendy was able to use stage directions to generate a lot of ideas during play, and include her playmates in her ideas. Wendy takes advantage of many opportunities for her to use varied and detailed talk

Examining Layla’s interactions showed an opposing skill set for giving stage directions and encouraging talk. Although Layla also used stage directions to describe her play, it often came in the form of repeating the ideas that other children had already described. This was shown in her previous interaction (Example 5). In that scenario, Kenny used stage directions to describe gathering a bunch of rocks, then Layla also stated she was gathering rocks. This was a common strategy for Layla.

Example 9: Layla giving stage directions. Layla had just joined Miles playing in the block center. Miles was creating a construction with wooden blocks. Layla watched him build for a few minutes, then she asked a question to enter into his play. Miles described it as a structure they built earlier in the indoor-play room with large sized foam blocks, referred to as the “blue blocks.”

Layla: What are you making?

Miles: We’re building the thing that we build at blue blocks.

Layla: Ah, the bad thing?

Miles: Yeah. Let’s build it together

Layla: Ok . Let’s build it... let’s (unclear)

Miles: Let’s build it together.

Layla: Yeah!

After this, Layla joined Miles and helped him build quietly. After a while, another student came over and he and Miles engaged in conversation, but Layla continued to play quietly. When she did join in the conversation again, she repeated Miles' initial plan and stated "Wait, I know what you're making Miles, you're making the bad thing." Miles responded to this by saying he would get more blocks, and Layla went back to playing quietly. In this example, Layla entered play by asking questions ("What are you making?" "Ah, the bad thing?") Then repeated Miles' stage directions ("Let's build it together"). Her engagement in the conversation later also showed her giving stage directions as a repetition of Miles' earlier statement. This was a common occurrence for Layla, she was often found engaging in play with the other children in class, but her talk often involved repeating other's ideas rather than generating new ones. Because Layla was not generating new ideas, there was less incentive for other children to speak with her.

Layla and Wendy highlight two different techniques for using stage directions in play. Wendy's description of her play generated new ideas and encouraged other children to engage her in conversation, whereas Layla's use of repeated stage directions was not followed with as much talk between peers. These examples provide evidence of a child with high-level language scores incorporating more successful techniques to continue conversations, and the child with low-level scores disengaging from the conversation and talking less.

Generating ideas. For both asking questions and giving stage directions, generating ideas with statements is useful strategy for engaging in talk. Many of the

earlier examples showed Kenny, Wendy, and even at times Darren generating ideas in their talk. When they used talk to generate ideas the other children they were speaking with responded with talk that built on the idea.

In example 3, Wendy asked if she could be the girl to gain social acceptance for the role she wanted to play. After she generated an idea for what she would do, she elaborated on this role by explaining that it was her birthday and she was going to the store so her playmates could throw her surprise party. Then there was much discussion about where the store was in the classroom, and where they would hide for the surprise. Then, they repeated this activity for another girl, using more talk. In this case, Wendy's ideas created an elaborate scenario in which she and the other girls used talk to discuss the scenario, negotiate actions, and take on characters. In example 4, Darren used a question to gain social acceptance for an idea he created about a magic garden. When his playmate accepted his idea, she elaborated on it by adding details to the story he started, and he added more details as well. Darren's ideas provided an opportunity to use talk to describe their play in detail and add to the structure they were building. In example 5, Kenny gave a stage direction for baking a cake. In this case Layla agreed, and their activity is continued, providing Kenny with more opportunities to guide both his and Layla's actions.

In these examples, there does seem to be a lack of Layla generating ideas. This was true for her transcripts as a whole. There were some instances of her suggesting an activity during play (e.g., stating she and Kenny should pour batter in specific spot in the sand table, exclaiming that a group of children can build something over again that has

broken) but in all of these instances she was building on ideas that were originally generated by others. These extensions and her repetitions of the specific talk of others made up most of her peer talk. In some circumstances, like her interaction with Miles in example 9, less talk occurred after her repetition. In other scenarios, however, such as her interactions with Kenny, she did seem to be able to sustain more talk. This indicates that her strategy may not encourage as much talk, but it may encourage interactions that meet her needs when using talk. Further discussion on how this is a successful strategy for Layla is included in the discussion of guided participation in peers.

When examining asking questions and giving stage directions through the lens of generating ideas, many of the questions that generate ideas are stage directions asked in the form of a question. For instance, in example 5, Kenny asks a question about his play, saying “I put them in here, ok?” Although that full statement is a question, the purpose of much of it is to give a stage direction. Wendy’s question “Can I be the girl?” in example 3 also provides a stage direction in the form of a question. In the talk examples provided, the successful interactions occur when the participants define their role or identify a constructed object (“We’re gonna make a cake.” “This is going to be a laser too.”) and ask questions to specifically engage others in play (“Do you know what?” “A bunch of rocks, right?”). With this in mind, giving stage directions in the form of a question, or giving a stage direction with a small question added to the end may be the way to establish the most useful peer interactions.

In summary, the data collected indicated that the participants with high-level language scores engaged in more talk than the participants with low-level scores, with

more than twice as much word use on average. In the genres of talk, asking questions and giving justifications accounted for the highest amount of words, with giving stage directions at 1043 words and asking questions/giving justifications at 525. These results were supported by the frequency of occurrence of the genres. Giving stage directions accounted for 31% of the overall genre frequency and asking questions accounted for 23%. In examining these two genres, there were differences between participants with high and low-level language scores, specifically with the participants with high-level language scores' generating ideas in contrast to the participants with low-level language scores' repetition or generating no ideas. These findings indicate that children with disparate language scores are using their talk in different ways, particularly in terms of how much they talk, the kinds of talk they are utilizing, and how they use this talk to initiate more conversation.

Discussion

The purpose of the current study was to gain more insight into peer interactions in an early childhood classroom with a focus on children with high-level language scores and children with low-level language scores. Four focus participants were observed and recorded to note any trends or concepts that emerged in their use of talk. An examination of these peer interactions found that the children with low-level language scores talked less than their peers with high-level language scores. In studying the genres of talk they were using, asking questions and giving stage directions were most frequently used and accounted for high amounts of their talk based on word count, but these genres were used in different ways by the participants with high- and low-level language scores. The following section connects these results with ideas presented by Mashburn (2009) about the language achievement gap, and presents concepts for teachers to consider when working with children. There was also an additional emergent finding that occurred. A potential apprenticeship relationship between a participant with high-level language scores and a participant with low-level language scores developed and was examined using the framework highlighted by Rogoff (1990) and ideas presented by Ochs and Schiefflin (2014). This relationship may highlight a useful strategy for supporting children with low-level language scores.

Supporting Peer Talk in the Classroom

The impact that peers have on language is still a somewhat under-utilized resource to help children improve their language scores (Ochs & Schiefflin, 2014). The findings presented here may provide some insight into ways children in early childhood settings may be given the tools or environment they need in order to help each other in language development. It is important to consider the amount of talk that children with different language scores are engaging in. The average word count from the recordings suggests that children with high-level language scores are engaging in talk more than children with low-level language scores. This aligns with the discussion from Mashburn et al. (2009) that children with low-level language skills are not improving as quickly as their peers because they are simply practicing their language skills less. If the amount of talk is affecting children's ability to develop language, researchers and educators will want to consider strategies for encouraging children with low-level language scores to engage in conversations more regularly.

One important element for encouraging children with low-level scores to talk to peers more is to make sure they have the time and space to do so. Previous research has shown the importance of allowing time for peers to interact independent of adult oversight (King & Saxton, 2010; Rogoff, 1990). Additionally, play in the classroom gives children these opportunities to have interactions and talk to one another (Corsaro, 2003; Smilansky & Shefatya, 1990). The current study shows that a great deal of interaction is happening between peers in the classroom. It adds further support to the importance of play in the classroom, and giving children the opportunity to interact with each other in various scenarios, providing various opportunities for using talk.

Findings from this study also show that the participants were using different types of talk for different purposes, and highlight some differences between the interactions of children with high- and low-level language scores. The findings for the genres of talk show that asking questions and giving stage directions account for a large amount of the talk between peers. The comparison between Wendy and Layla's use of giving stage directions as well as asking questions, shows that the way these children are engaging in conversation is different. In example 7, Wendy generates lots of ideas by constructing an object and identifying different uses and labels for its parts ("This is a laser." "If you touch this part, you will burn yourself"). She actively engages other children in the conversation by asking them to confirm what she has built and bringing them into the play ("We gotta move all of these things up, right?"). Layla, however, spends much of her time repeating the talk of others, a strategy that engages others less than Wendy, but allows her to participate in conversation. This is shown in both example 5, when she repeats Kenny's idea about the rocks ("There are more rocks right here") and in example 9 when she repeats Miles' idea about building a structure ("Ok, let's build..."). In these ways, both children are working on their skills and improving, but Wendy's strategy allows for continued interaction and more variation with talk. Layla's strategy offers little to no new ideas for other children to build on, making her talk shorter, and with less variation. This also supports the Matthew effect theory discussed in Mashburn et al. (2009), that children with better skills and resources are better able to take advantage of learning opportunities than their lower-level peers. Taking this into consideration, finding the ways to help children with low-level language scores make use of their opportunities

becomes an essential piece to improving language development. It may be useful for teachers to be aware of the different genres of talk presented here when supporting peer interactions. Recognizing and identifying the use or lack of various genres, as well as exploring whether a child is generating ideas or repeating, may provide insight into how supportive a child's interactions with his/her peers are.

Talk and the Peer Apprenticeship Framework

There was also a finding that emerged during analysis in a relationship between one of the participants with high-level language scores and one of the participants with low-level language scores. During the observations, Kenny and Layla spent much of their time interacting with each other. Because of this, I explored their relationship using Rogoff's (1990) framework for peer apprenticeships. In Rogoff's discussion of guided participation between peers, she states that children of the same age and social status can assume the positions of expert and novice in relation to one another, in order for the novice to become more skilled in an ability. Layla's repetition in her talk could be viewed as a form of this apprenticeship relationship, in order to learn from a more skilled peer. For Layla, this more skilled peer was Kenny. An introductory analysis of their partnership may yield some interesting ideas about peer apprenticeships.

In the previous discussion of Rogoff's (1990) framework, three important elements were identified for a peer apprenticeship relationship: time for social play or activity exploration, established relative expertise, and providing a language learning structure. Rogoff identified time for social play and activity exploration as important for guided participation amongst peers because it provides peers time to interact and

negotiate with each other free from adult constraints. In example 5, Layla repeated Kenny's ideas about what to build in the sand table, and how to collect the rocks. Kenny and Layla took advantage of this unstructured playtime to talk, and practiced the first element of developing the peer apprenticeship relationship. During this interaction, Kenny and Layla created rules about how to make a cake out of sand, negotiated who would add what ingredients, and described the making process.

For relative expertise, one peer must establish himself or herself as knowledgeable and experienced when compared to the other peer. This relative expertise gives one peer an amount of authority over the other, and the expert peer can provide trusted knowledge or learning experiences (Rogoff, 1990). Kenny started the play by presenting an idea ("We're gonna make a cake") and Layla agreed, repeating his statements about collecting the rocks and putting them all in the same place. Right at the beginning of the play, Kenny established himself as the expert by generating the idea and directing the action, and Layla positioned herself as the novice by agreeing with his ideas and following his instructions. Here, both participants are practicing the second element of the apprenticeship relationship. After this, Kenny further established himself as the expert by coaching Layla on her actions ("Only a little pinch of it. Pinch! Little pinches..."). Layla then acquiesced and sprinkled the sand the way Kenny had instructed.

For a language learning structure, Rogoff stated that in guided participation scenarios, a language learning structure is provided by the expert in labeling items or ideas and describing his/her processes (1990). Examples provided earlier noted Layla's tendency to repeat others talk during her play. This repetition occurred often during the

play between Kenny and Layla. At the sand table, Kenny talked about the rocks in his and Layla's cake, stating "Oh, this has a lot of rocks in it." Layla replied "There's enough rocks on these." During their play, Kenny decided that their baking is a surprise and Layla agreed to this new idea. Then their cake turned into cookies. Kenny stated "That's the other surprise, you're making cookies." Layla responded with a confirmation and a slight extension to the play "Yeah! Cookies, and we make 'em together." As the expert in the relationship, Kenny provided a language structure by giving items labels, describing his play processes, and inviting Layla to join in the conversation.

These elements were also present during another interaction between Kenny and Layla. During this session, Layla and other children were building with blocks, sometimes together, sometimes apart. Layla only spoke occasionally to the other children, and rarely built upon their ideas in the play. However, when Kenny came over to join, he immediately moved to Layla's area, telling her "Oh, I have a good thing." Layla initially protested, but then agreed to his changes, and engaged in conversation more. When Kenny added to the block structure, he announced, "Look! Only the little guys can go down." After that, Layla also yelled "Look!" when she was playing with the structure. When Kenny described "certain places" that could be used on the structure, Layla immediately repeated the phrase "certain places." Here Kenny and Layla were again interacting during unstructured play. When Kenny entered into the play, his ideas and coaching allowed Layla to move into the position of novice, and she practiced her skills by repeating his talk.

The possible peer apprenticeship relationship between Kenny and Layla provides an interesting new avenue for research in exploring how children use talk. In order to do so more in-depth, it would be important to determine whether any partnership between peers of differing ability or achievement levels could be identified as an apprenticeship relationship. In my introductory analysis, I posit that finding these three important elements helps to identify this as an apprenticeship. Because this analysis uses specific examples to solidify theoretical concepts, more research is needed to determine if these elements are indeed necessary for a peer apprenticeship, and if my method for pinpointing them is accurate. It would also be beneficial to determine possible key indicators for identifying an apprenticeship relationship. Are there specific behaviors or words that would help to describe a partnership as an apprenticeship.

Limitations and Implications for Future Research and Practice

There are a number of limitations to this study. First, this was a small, observational study, in which I recorded and transcribed three one-hour sessions for each participant. It is important to note that the goal of this study was to provide descriptive data through in-depth examinations and nuanced descriptions of the participants. The overall goal was not to generalize to a larger population. It is also important to note that because this was a small study, it was focused specifically on talk as one small part of language. The data from this study yielded some interesting findings on how the participants are using talk. However, even though the goal was to be small and descriptive, more observations and transcriptions are needed to strengthen and solidify these findings.

More observations and transcriptions are also needed in determining the effectiveness in coding the genres of talk. As noted earlier, in using the genres of talk, I was concretizing a vague conceptualization outlined by Clark (2009). The difficulties I encountered included what constituted as a unit of talk and whether or not units could fall into different genres. The overlaps of some of the genres made for a coding process that is not yet clearly defined or easily implemented. Also, after my initial coding, when I returned to the data, I would sometimes make adjustments and changes to the genre sort during my analysis. In this way, there were some difficulties with my intra-rater

reliability. These limitations indicated that more work in establishing specific criteria for determining units as well as sorting genres is needed. For this study, the genres of talk were used as a way to understand preschooler's language, rather than as a tool for deep linguistic analysis. Further research into their effectiveness as a coding scheme may be useful in supporting the results in this study and would be essential to use them in other language analysis work.

Another limitation was in the availability of participants. For this study, high- and low-level language scores were determined using median scores for the Pre-K language and literacy spectrums for *Teaching Strategies GOLD*. I was able to identify children above or below the median for the Pre-K spectrum, but none of the children in class were below the Pre-K level for these areas. Having a larger difference between the scores of the participants with high- and low-level language scores could affect the findings presented.

The findings from this study also highlighted some other areas for further research. Further exploration into how children are utilizing the genres of talk presented here, as well as investigation into whether these genres are useful in examining children's talk could be one area for future research. Researchers could use the genres of talk as a coding scheme again, this time focusing specifically on both intra- and inter-rater reliability. The genres could be explored during different times of the day, to see if they are utilized more or less at different times. Examining teachers' use of these genres also might provide interesting ideas in terms of what talk is being modeled by the adults in the classroom.

There is also an implication for practice in examining the genres. For teachers, awareness and examination of the genres of talk may provide insight into his/her classroom. A teacher could collect data on an individual student to gain insight into the interactions of that child in class. A teacher could also explore the use of the genres for the class as a whole. This may provide information about how the class is interacting in general. For example, it may be useful for a teacher to know that children are having conflicts a lot in class. If a teacher is aware of increased use in this genre, then he/she might adjust the classroom or his/her teaching practices to reduce arguments.

Peer interactions in this study took place in many different areas and with many different materials throughout the study. Examining how the classroom environment or the materials offered affects peer interactions may also provide interesting insight. Research could be conducted on whether offering more specific or open-ended play materials would affect the amount of talk or the genres of talk being used. A lack of enough play materials could also be examined in terms of how children talk to one another (e.g., there could be an increase in conflict).

The emergent finding of the apprenticeship relationship was an unexpected result of the study. Additional research to help establish these concepts as a framework for analysis would be beneficial, including establishing the important elements of the framework and finding specific words or behaviors that help to identify an apprenticeship. This could be done by identifying a possible apprenticeship relationship and then examining each child's behaviors in multiple contexts (i.e., at different times of

day, with different playmates, on his/her own). Collecting data on all of these behaviors would help to highlight the behaviors that are specific to the apprenticeship. Also, a closer examination into the scenarios and environments that are supporting an apprenticeship may be useful. Additional observational studies may help identify apprenticeship relationships in other classrooms and offer a comparison for the one in this study. In these studies, gathering data on whether certain play areas, times of day, or even other personality factors of the children may provide insight into more successful supports for developing these relationships. Additionally, it will be important to examine whether this kind of relationship is beneficial to the student with lower-level language scores. If the criteria for identifying a peer apprenticeship relationship can be established. Intervention studies might be developed to help determine if an apprenticeship relationship can improve language scores or other areas of achievement. Peer apprenticeship relationships could also be explored beyond language learning, using the introductory framework explored here.

Conclusion

Social influences are one of the most important factors in a child's language development, but the substantial role of peer interactions remains little understood. This study examined the role of peer talk as one piece of language development, using a rich data set of multiple observations and audio recordings. It investigated how children at different language scores use talk, how much they are talking and the genres of talk they use. The findings of the study showed that the participants with high-level language scores tended to engage in more talk in peer interactions, potentially influencing the achievement gap identified by Mashburn et al. (2009). One of the key findings of the study is the disproportionate role that two genres of talk, asking questions and giving stage directions, have in opening and extending talk. Also, that the children with high-level language scores use these genres to generate more ideas during play, again possibly giving them more opportunities to practice language than the children with low-level language scores.

These findings indicated that it may be useful for teachers to be aware of the genres of talk, and how they are being utilized in their classrooms. Additionally, examining how much children are generating ideas may provide useful insights into their peer interactions. The study also identified an emerging peer apprenticeship relationship as defined by Rogoff (1990) that provided opportunities for talk for a child with low-level

language scores For the emergent finding, if an apprenticeship relationship helps a child with low-level language scores experience confidence and success in using his/her language, teachers and researchers may want to investigate if and how these apprenticeship relationships are happening in the classroom. Additional research on these topics might yield valuable tools for encouraging language development across ability levels.

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Biography

Hannah Lott received her Bachelor of Science in Anthropology from Pitzer College in 2003. She went on to receive her Elementary Education Teaching Credential from Chatham University in 2005. After finishing her Masters of Science in Educational Psychology at George Mason University, she will begin a position as Curriculum Specialist for the Inspired Teaching School in Washington, D.C.