Instructional Conversations in Early Childhood Classrooms: Policy Suggestions for Curriculum Standards and Professional Development[*]

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The purpose of this article is to provide suggestions for two early education policy levers proposed by the Organization for Economic Cooperation and Development (OECD) that can be specifically applied to oral language instructional in the classroom: Policy Lever 2—Designing and implementing curriculum and standards; and Policy Lever 3—Improving qualifications, training and working conditions. First, I describe the efforts the United States has made in terms of oral language instruction, and second I describe a professional development model (the Conversation Compass©) that trains teachers to use instructional conversations with children age 2 - 6.

Keywords: Teacher Professional Development; Preschool; Oral Language; Early Education Policy

Introduction

Language is the "currency" of education because the higher-order cognitive and social skills needed to succeed in school are gained via language interactions.

Cocking & Mestre, 1998.

In *Starting Strong III*: *A Quality Toolkit for Early Childhood Education*, the Organisation for Economic Cooperation and Development (OECD) highlights five policy levers countries can use to enhance the quality of early childhood education. These levers include: 1) Setting out quality goals and regulations; 2) Designing and implementing curriculum and standards; 3) Improving qualifications, training and working conditions; 4) Engaging families and communities; and 5) Advancing data collection, research and monitoring. During a presentation to the OECD in October 2012, I focused on Policy Lever 2 and 3, specifically as it relates to oral language instruction (i.e., instructional conversations) within early childhood classrooms with children age 2 - 6.

Within Policy Lever 2 there was a list of critical learning domains for curricula or standards that expanded beyond traditional academic skills of literacy and numeracy, and included other important learning domains, such as art and play, both of which researchers agree are key to young children's wholistic development. Interestingly, however, oral language was not listed as a critical learning domain within its own right. On the one hand, it is logical to not have a separate domain for oral language because language is the basis for human thought; therefore, success across *all* of the learning domains would be dependent on children's language skills. In fact, in *Thought and Language* (1986) Vygotsky writes, "⋯ Thought does not express itself in words, but rather realizes itself in them" (p. 251), which can be interpreted as linking oral language to our higher-order reasoning. Although most scholars, and even classroom practitioners, would acknowledge that oral language forms the basis for higher-order reasoning, as researchers, teachers, and policy makers in the early childhood education field, we must also acknowledge that the *intentional* teaching of oral language skills to children, particularly conversation skills, and the specific training early childhood professionals receive in terms of *how* to teach conversation skills is an area that is lacking in many countries' curriculum development and professional development (PD) trainings for teachers.

Therefore, the three purposes for this paper are to: 1) describe the need for curriculum standards and PD around oral language conversation skills; 2) describe recent efforts within the United States to build these oral language and conversation skills into the education goals for K-12 students; and 3) introduce a PD strategy designed to train early childhood teachers in the art of facilitating instructional conversations.

Need for Curriculum Standards Related to Oral Language Skills

The development of children's oral language skills is a key concern for many policy makers and practitioners because oral language provides the foundation for learning (see NICHD Early Child Care Research Network [NICHD], 2005). Cocking and Mestre (1998) argue that language skills are the "currency" of education, and this is because the higher-order cognitive and social skills needed to succeed in school are mediated by

children's oral language abilities, particularly those abilities needed for engaging in collaborative reasoning during academic discussions, which can be referred to as **instructional conversations**. Based on a reading of the education literature related to classroom discussions (see Aukerman, 2007; Burman, 2009; Goldberg, 1992; Peterson & Taylor, 2012; Zhang & Stahl, 2011), I have come to define instructional conversations as planned discussions with small groups of children in which teachers facilitate students' collaborative reasoning using challenging questions that require students use complex language to talk about their experiences, knowledge, and opinions. Such conversations should not just be limited to discussions around shared-reading, especially given that shared-reading accounts for such little time throughout the school day (Dickinson & Tabors, 2001), but should also extend to other classroom activities, such as play and/or hands-on science or math activities (see Curenton, Justice, Zucker, & McGinty, 2013).

Unfortunately, studies show that classrooms within the United States vary dramatically in the quality of their language-learning environments, especially in classrooms where the majority of children are living in poverty (Connor, Morrison, & Slominski, 2006; Farran et al., 2006; Pianta et al., 2005). Repeated research has found that teachers' classroom talk relies too much on directives, closed-ended questions, and talk that is not cognitively challenging (Dickinson, 2001; Durden & Dangel, 2008; Gest, Holland-Coviello, Welsh, Eicher-Catt, & Gill, 2006; Massey, Pence, Justice, & Bowles, 2008), which limits opportunities to engage children in higher order talk/thinking.

Within early childhood education, some researchers have designed specific interventions that focus training teachers to use conversation (see Bond & Wasik, 2009; Cabell et al., 2011; Girolametto, Weitzman, & Greenberg, 2003; Piasta, et al., 2012). Taken together, these early childhood interventions suggest higher-level classroom conversations during the early school years provide the foundation for later school success because they build young students' ability to talk about and understand vocabulary, academic language, features of written text, and the internal states of story characters. Such conversations also teach young children to make evaluative judgments and inferences by providing opportunities for them to use scientific prediction and problem-solving, which are essential skills for future math and science courses. Thus, across the educational spectrum researchers, teachers, and policy makers agree that high-level conversations are a key component of high-quality instruction, and that there is a need for intentional policy efforts to build these skills into the curriculum and to train teachers have to more effectively use these skills in the classroom.

United States Curriculum Efforts to Focus on Oral Language Skills

The United States does not have a national curriculum because individual states are given the autonomy to decide which curriculum is best suited for their particular populations, however, recent federal policy efforts have encouraged, and provided incentives for education policy makers across states to adopt the *Common Core Standards* for K-12. *Common Core Standards* are not a curriculum per se; instead, they are education goals for what students should be able to achieve across the grade-level spectrum. The *Common Core Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects* (http://www.corestandards.org/assets/

CCSSI_ELA%20Standards.pdf) identify anchor standards critical to classroom discussions: *Anchor of Speaking and Listening* and *Anchor of Language*. **Table 1** provides details about the skills teachers need to instill for each anchor. Although the *Common Core Standards* are targeted towards the education goals for children in elementary and secondary school, the early childhood field demonstrates that it is also committed to fostering such instructional conversation skills. For example, all state *Early Learning Guidelines* emphasize knowledge-building higher-order dialogue around texts and activities. The inclusion of these Anchors for Speaking and Listening and Language, will force teachers to intentionally focus on teaching these skills throughout classroom activities. Given that prior research has demonstrated teachers are not very effective in facilitating classroom discusssions (see Aukderman, 2007; Goldenberg, 1992; Peterson & Taylor, 2012; Zhang & Stahl, 2011), such Common Core Standards beg for the field to more create PD opportunities for teachers to become skilled at teaching oral language skills.

A Professional Development Model for Instructional Conversations: The Conversation Compass (CC)©

Early Educators' Need for Training on Conversations with Special Populations

Across all divisions of education, both early childhood and K-12, there is a need for professional development (PD) and training on how teachers can engage students in higher-order conversations, and this is especially true for those teaching low-income ethnically and linguistically diverse students (see Aukderman, 2007; Goldenberg, 1992; Peterson & Taylor, 2012; Zhang & Stahl, 2011). Ethnic and language minority children have unique needs as it relates to classroom conversation because children enter early childhood programs with less developed oral language skills (Curenton & Justice, 2008; Justice, Meier, & Walpole, 2005; National Center for Education Statistics, 2012). In general, researchers report there is a lack of adequate professional development for administrators and teachers who educate language minority children (Buysse, Castro, West, & Skinner, 2005; Gandara, Maxwell-Jolly, & Driscoll, 2005; Ryan, Ackerman, & Song, 2005).

It is important to consider individual differences in language skills, particularly for children raised in poverty, children with language impairment, or English Language Learners (ELL). These populations are at greater risk for later reading and academic difficulties than their typically developing peers and are likely to need additional practice and scaffolding to use academic language (Snow, Burns, & Griffin, 1998). For instance, low-income children's vocabulary lags behind their middle-income peers' (Farkas & Beron, 2004), and preschoolers with specific language impairment have problems using decontextualized language to recount personal narratives (Kaderavek & Sulzby, 2000). The good news is that intervention research demonstrates the effectiveness of training teachers in conversations with low-income children and/or language impaired children (Wasik et al., 2001, 2006; van Kleeck et al., 2006). In terms of ELL students, many ELL students attend schools were instruction is predominately in English (Tabors & Snow, 2001). ELL in mainstream classrooms thrive when instructional conversations encourage complex verbal expression through open-ended questions and follow-up probes (Williams, 2001). Our

Table 1.
Common core standards in English literature.

Speaking and Listening Anchor	
Comprehension and Collaboration	Present Knowledge and Ideas
Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.	Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.	Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.	Adapt speech to a variety of contexts and communicative tasks, demonstrating command of formal English when indicated or appropriate.

Language Anchor		
Conventions of Standard English	Knowledge of Language (Begins @ 2nd grade)	Vocabulary
Demonstrate command of Standard English grammar and usage when writing or speaking	Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.	Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.
Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.		Demonstrate understanding of figurative language, word relationships, and nuances in word meanings
		Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening.
		Demonstrate independence in the gathering of vocabulary knowledge when encountering an unknown term important to comprehension expression.

tool is helpful to teachers working with ELL students who are proficient in basic interpersonal conversation but have yet to master cognitively demanding, academic conversations. Teachers can use the *Conversation Compass* to build Linguistic Reasoning (*define words*) or Analytic Reasoning (*explain/analyze*), both of which are examples of recommended instructional strategies for ELL (Gersten et al., 2007). Because the compass focuses on other language skills, like problem-solving and hypothesizing, it can also help ELL students in mainstream classrooms learn other academic skills, such as science via hands-on inquiry activities (Stoddart et al., 2002).

Early Educators' Need for Training on Using Facilitated Conversations

Justice and colleagues (2008) explain that training teachers to engage in high-quality oral language instruction may be more complex than training them in literacy instruction. Oral language training requires teachers learn how to engage in dynamic conversation exchanges in which they are following the child's lead, and such exchanges cannot be scripted or manualized. In fact, teachers even believe language instruction (particularly vocabulary instruction) is best when it is non-scripted and spontaneous (Diamond & Powell, 2011). On the contrary, Justice and colleagues (2008) explain that high-quality literacy instruction is relatively teacher-initiated, systematic, and explicit; it is "systematic" in that teachers can organize and sequence lessons in a logical manner, and it is "explicit" in that there is clear terminology for the concepts children are to learn.

In terms of literacy instruction, teachers thought that literacy instruction (teaching letter names) should be done via explicit instruction (Diamond & Powell, 2011). One way in which language instruction can become more systematic and explicit is by maximizing the frequency and quality of *facilitated* classroom conversations (see Burman, 2009). There are two types of conversations that happen in early childhood classrooms, spontaneous conversations versus facilitated conversations. **Spontaneous conversations** are the most frequent conversations and they occur without any particular planning on the part of the teacher; the topics for such conversations are typically initiated by children. On the other hand, a facilitated conversation happens during planned lessons/activities and the topics are initiated by the teacher. The Conversation Compass instructional support strategy attempts to train teachers to make use of routine, planned **facilitated conversations**.

Brief Description of the Conversation Compass

The CC is a conversation-based instructional support strategy that can be used to promote young children's thinking, reasoning, and language skills in preschool classrooms, and there are three lesson planning tools that accompany the strategy: the Conversation Compass© (see **Figure 1**) the Conversation Map© (see **Figure 2**), and the Talking Terminal Peer Conversation Planner© (see **Figure 3**). Images of these planning tools are illustrated below, and more information about how to use the tools and receive professional development training can be obtained by contacting the author at curenton@rutgers.edu.
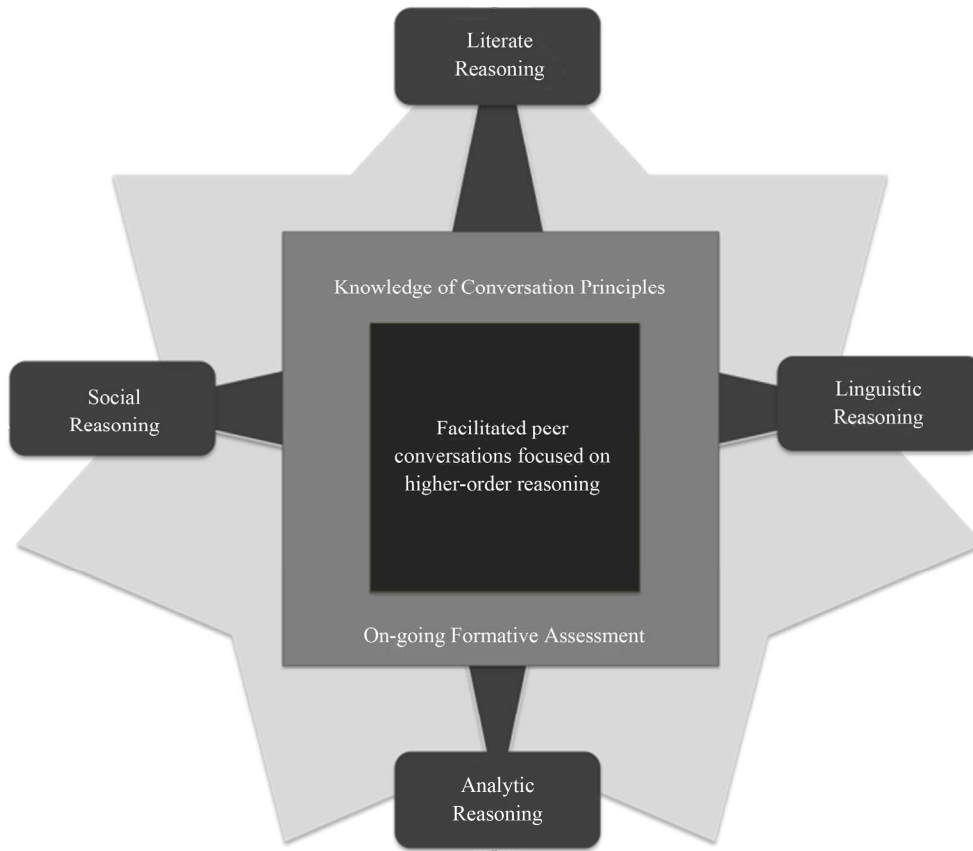
Figure 1.
Conversational compass.

Conversation Map©

 Purpose: To plan a facilitated conversation focused on higher-order reasoning

 Step 1: Define the learning objective
 Step 2: Choose the conceptual path(s) on the Compass:
 Step 3: Create open-ended questions to guide the conversation
 Step 4: Brainstorm scaffolding responses

Description of Activity: _____

Learning Objective: _____

_____

Areas of Reasoning _____

Write Potential Questions and Scaffolding Responses

Figure 2.
Conversation map.

Talking Terminals©

Prupose: To plan, facilitate, and observe, a peer conversations.

Step 1: Assign teams based on children's diverse conversation skills and styles.
Step 2: Pick the weekly 10-minute activity to be used with all teams.
Step 3: Pick your conceptual path(s) and conversation starter(s).

Describe Weekly Activity: _____

Learning Objective: _____

_____

Conceptual Path(s): _____

Weekly Talking Teams (2-3 children)		
Team	Children's Names	Observation Notes
1		
2		

Figure 3.
Talking terminals peer conversation planner.

Figure 1 provides a graphical depiction of the primary elements of the CC. At the heart of the compass is the need for teachers to intentionally plan for the facilitation of peer-to-peer conversations that build higher-order reasoning. In order to facilitate such conversations effectively, teachers much be trained on how to effectively engage in a conversation (i.e. have **Knowledge of Conversation Principles** which will be discussed later in the example) with students and evaluate students' conversational skills using **On-going Formative Assessment** that can be done by routinely observing children in small group discussions using the Talking Terminal Peer Conversation Planner). As shown in **Table 2**, The CC has four quadrants called **Conceptual Paths**: *Literate Reasoning*, *Linguistic Reasoning*, *Analytic Reasoning*, and *Social Reasoning*. Embedded within these conceptual paths are **Conversation Starters** that are used as the topic of questions a teacher might use to begin a conversation. So the Conceptual Path is the concept (also known as the type of "reasoning") teachers want to teach, and the Conversation Starters are the topic of the questions teachers will use to start the conversation. These conversation starters are based on inter-disciplinary research demonstrating the effectiveness of engaging children in high-level, decontextualized discourse or inferential reasoning (Dickinson & Tabors, 2001; Nagy & Townsend, 2012; van Kleeck et al., 2006). **Table 2** provides detailed definitions and examples of

the Conceptual Paths and Conversation Starters. In order to fully understand the Conceptual Paths and Conversation Starters, it is first important to realize that teachers' comments and questions do not always require the same level of verbal expression or the same experiential knowledge-base and/or reasoning from children (Sigel, Stinson, & Kim, 1993). For example, questions about a character's motivation for engaging in a behavior (social reasoning) is asking children to pull from a different knowledge base than questions that ask them about letters and numbers (literate reasoning).

Examples of Instructional Conversations

Ms. Sims' Example of How to Use Conversation Map

In this example, we describe the use of the Conversation Map and share a sample planned interactive book reading conversational created by a preschool teacher (see **Figure 4**), Ms. Sims[1] (a pseudonym) who selected a book to share with her mixed-raced, bilingual (Spanish) Head Start students. Shared book reading is a common activity teachers use for instructional conversations. Shared-reading interactions is an activity that naturally lends itself to higher-level conversation because discussions during shared reading involve making inferences, building vocabulary, giving factual information, providing clarifications, and anticipating future events (e.g., Sorsby & Martlew,

Table 2.
Definitions of conceptual reasoning paths and conversation starters (and examples from real preschool teacher).

Literate Reasoning

The ability to understand alphabetic and numeric print and societal symbols and the ability to interpret written texts and oral narratives.

Analyze Literature: Discuss the structure of the story or infer the author's message or story theme/plot (*Why did Duck decide to go back to the farm at the end*?).

Analyze Print: Explain features and/or meanings of the alphabetic or numeric system or phonetic sound system (*What does the "F." stand for when you see "F. Brown" on this page*?).

Linguistic Reasoning

The ability to understand and use features of language, like vocabulary, grammar, and social conventions of speaking.

Define Vocabulary: Define or explain the meaning of a word, symbol, or picture by explaining the meaning (*What does it mean to vote*?).

Academic Vocabulary: Define or explain discipline specific language or concept or the language for the mainstream school setting (*What is the governor's job*?).

ANALYTIC Reasoning

The ability to make observations, brainstorm, compare/contrast, and gather information.

Problem Solve: Describe alternative solutions or methods for doing things or detail the steps in a plan (*So first duck ran for the _____ then the _____, then the _____*?).

Predict/Hypothesize: Predict the future or make "If-then" guesses about cause-effect (*Do you think Farmer Brown will ever run for president*?).

Integrate/Connect: Connect present learning to real life or prior learning or make comparisons/contrasts (*What's the name of our President in the United States*?).

Social Reasoning

The ability to interpret and explain their own and other peoples' psychological states (such as thoughts, feelings, and motivations).

Imagine/Infer: Encourage pretending or imagining, talk about fantasy versus reality, use a make-believe voice for character, or make inferences (*Can a duck really become president*?).

Build memories: Ask children to remember prior information, activities, or procedures or share personal stories about the past (*What kinds of animals did we see on the farm*?).

Explain Feelings/Thoughts: Describe or infer story characters', personal, or other children's thoughts, desires, feelings (*Why was Farmer Brown angry when he found out duck was going to run in the farm election*?).

1991; van Kleeck et al., 1997, 2006). Educators are more likely to ask questions and use a rich vocabulary during shared reading than in other classroom activities (Gest et al., 2006; Massey et al., 2008).

Based on the Conversation Compass professional development workshop she attended in the fall of 2011 (given by the author), she crafted a lesson plan to achieve higher-level conversations using the principles and planning tools embodied by the instructional strategy. Ms. Sims incorporated the conceptual paths and conversation starters into the Conversation Map planing tool; this tool supports thoughtful preparation of higher-level conversational within the context of shared book reading; it provides a "map" (i.e., a guide) for the conversation.

Step 1. To use the Conversation Map, a teacher would select a fiction or non-fiction text she is planning to read and generate conversation topics. The book for Ms. Sims' lesson is *Duck for President* (Cronin, 2004) which is about a duck who decides to run for public office because he is unhappy with the working conditions on his farm. Duck first begins by organizing the other animals and starting a campaign to take Farmer Brown's role as head of the farm. Duck wins the election, but soon finds he is unhappy because it is hard work managing the farm. He decides to run for governor because he thinks that job will be easy, but when he finds being governor is hard work he runs for president. Eventually, Duck decides he is even unhappy as

president and returns to the farm to work on his autobiography. This fanciful book provides the opportunity for a rich discussion about civics, job satisfaction, and ambition. There is both alphabetic and numeric text embedded within the illustrations that provide possibilities for talking about the meaning of printed letters and numbers.

Step 2. The next planning steps with the Conversation Map are to determine the learning objectives and then choose the Conceptual Path(s) and Conversation Starters one will use to achieve higher-level dialogue. In Ms. Sims' example, she chose Literate Reasoning, Analytic Reasoning, and Social Reasoning as conceptual paths, and she used conversation starters within those paths. Her lesson plan illustrates how Conversation Maps should not solely be limited to the Literate Reasoning path. For one part of the story, Ms. Sims focused children's attention on the pages showing the election results. The pages with the election results always showed the tally of votes for Duck and his opponent (e.g., F. Brown 6, Duck 20). Therefore, on these pages she planned to engage children in back-and-forth dialogue about print, both letter (alphabetic) conventions, such as understanding the initial in Farmer Brown's name ("F. Brown") and numerical conventions (e.g., "20" signifies a greater quantity than "6"). The book allows for repeated discussion of these concepts, and Ms. Sims takes advantage of every opportunity by asking a similar open-ended known question on each elec-

Title of Book: _Duck for President_ by Doreen Cronin

Learning Objectives:

(1) Children will be able to make predictions based on what they think will happen to duck (main character)

(2) To retell the story by looking at and describing the pictures

Conceptual Path(s): Literate Reasoning, Analytic Reasoning, and Social Reasoning

Before the Story
Relate the story to our recent trip to Von Thun's Farm **(BUILD MEMORIES)**
Ask children to look at front cover and describe what they think is going to happen in the story **(PREDICT/HYPOTHESIZE)**
During the Story
Ask children if they have chores at home like the duck does on the farm and if they like their chores **(INTEGRATE/CONNECT)**
Ask children if they think duck or Farmer Brown will win the farm election and why **(PREDICT/HYPOTHESIZE)**
Ask children who won the farm election by looking at the voting page **(ANALYZE PRINT)**
Ask children if they think that duck will win the governor's election and why **(PREDICT/HYPOTHESIZE)**
Ask if he won [the governor's election] by looking at voting page **(ANALYZE PRINT)**
Ask children if they think being a governor is hard work **(IMAGINE/INFER)**
Ask children if they think duck will become president and why **(PREDICT/HYPOTHESIZE)**
Ask if he won [the presidential election] by looking at the voting page **(ANALYZE PRINT)**
Ask children why they think duck decided to go back to the farm after all **(EXPLAIN THOUGHTS/FEELINGS)**
After the Story
Recall all the jobs that duck had and why he didn't like them **(BUILD MEMORIES)**
Ask children which of duck's jobs they would like for themselves **(IMAGINE/INFER)**

Figure 4.
Example conversation compass: Conversation Map[©].

tion page. Ms. Sims also asked children to predict who they thought would win each election and why. Both before and after the reading of the text, she asked children to use their Analytic Reasoning to make a connection between the book and their home chores (integrate/connect), and (b) use Social Reasoning to remember places they have gone or to imagine which of Duck's jobs they might like to have (build memories).

Using Ms. Sims' Example to Explain the Conversation Principles

Scaffolding Based on Children's Responses. Because CC lessons are subject to the three responsive conversation princeples—active listening, responding, and continuing—it simply sets the path of the conversation. Responses from individual children determine the actual journey! Teachers can use the Conversation Map to set the course of learning objectives, but she needs to take detours based on children's responses, which could result in scaffolding between asking harder and easier questions. For example, in order to answer the prediction/hypothesis question about who will win the elections, children must recognize the word _duck_. If children are unable to read this word, she might scaffold with, "Which word says 'duck'?" which could further be scaffolded down, if needed, to "What letter does the word 'duck' begin with?" or even "Show me the word that begins with the letter D?" Scaffolding between harder and easier questions is necessary in order to help children grasp concepts.

Practicing Back-and-Forth

Exchanges. When teachers first begin using the compass, they should pick one path and focus on using multiple back-and-forth exchanges within that particular path to ensure children's conceptual development is driven via elaboration during these exchanges. It is better to have a longer back-and-forth exchange around one concept, rather than brief exchanges across a variety of concepts. The goal is to get children to think

deeper along each Conceptual Path. Children will have ample exposure to all of the paths if teachers are repeatedly read books and plan activities to support higher-level conversations. Each book (or activity) can—and should—be read (or done) again and again, each time with the focus being on another path. Later, after teachers have become accustomed to fostering long back-and-forth exchanges, (s)he can begin creating lesson plans that cross Conceptual Paths they way Ms. Sims did.

Conclusion

The *CC* is intended to move conversations in early childhood classrooms to higher levels by fostering deep, thoughtful discussion. The lesson planning tools, along with the philosophical strategy, of the CC strategy fits nicely within any existing country's curriculum planning, especially with those found Common Core Standards within the United States. The key knowledge of conversation principles can be applied to any routine classroom activity, such as literacy, science, or math activities. The research basis underlying the CC indicates this type of classroom talk benefits children from all ethnic groups, socio-economic statuses, and developmental abilities. Educators across countries can use the *CC* to help *all* children navigate the present world in which mastery of sophisticated, academic language is the educational currency of the 21st century.

REFERENCES

Aukerman, M. (2007). A culpable CALP: Rethinking the conversational/academic language proficiency distinction in early literacy instruction. *The Reading Teacher, 60,* 626-636. doi:10.1598/RT.60.7.3

Bond, M. A., & Wasik, B. A. (2009). Conversation stations: Promoting language development in young children. *Early Childhood Education Journal, 36,* 467-473. doi:10.1007/s10643-009-0310-7

Burman, L. (2009). *Are you listening? Fostering conversations that help young children learn.* St. Paul, MN: Redleaf Press.

Buysse, V., Castro, D. C., West, T., & Skinner, M. (2005). Addressing the needs of Latino children: A national survey of the state administrators of early childhood programs. *Early Childhood Research Quarterly, 20,* 146-163. doi:10.1016/j.ecresq.2005.04.005

Cabell, S. Q., Justice, L. M., Piasta, S. B., Curenton, S. M., Wiggins, A., Pence, K., & Petscher, Y. (2011). The impact of teacher responsivity education on preschoolers' language and literacy skills. *American Journal of Speech-Language Pathology, 20,* 315-330. doi:10.1044/1058-0360(2011/10-0104)

Cocking, R., & Mestre, J. (1988). Introduction: Considerations of language mediators of mathematics learning. In R. Cocking, & J. Mestre (Eds.), *Linguistic and cultural influences on learning mathematics* (pp. 3-16). Hillsdale, NJ: Earlbaum.

Connor, C. M., Morrison, F. J., & Slominski, L. (2006). Preschool instruction and children's emergent literacy growth. *Journal of Educational Psychology, 98,* 665-689. doi:10.1037/0022-0663.98.4.665

Cronin, D. (2006). *Duck for president*. Minneapolis, MN: ABDO Publishing.

Curenton, S. M., & Justice, L. M. (2008). Children's preliteracy skills: Influence of maternal education and mothers' beliefs about shared-reading interactions. *Early Education and Development, 19,* 261-283. doi:10.1080/10409280801963939

Curenton, S. M., Justice, L. M., Zucker, T., & McGinty, A. (2013). Language and Literacy Curriculum and Instruction. In V. Buysse, & E. Peisner-Feinberg (Eds.), *Handbook of response to intervention (RTI) for early childhood* (pp. 237-249). Baltimore: Brookes.

Diamond, K. E., & Powell, D. R. (2011). An iterative approach to the development of a professional intervention for Head Start teachers. *Journal of Early Intervention, 33,* 75-93. doi:10.1177/1053815111400416

Dickinson, D. K. (2001). Large-group and free-play times: Conversational settings supporting language and literacy development. In D. K. Dickinson, & P. O. Tabors (Eds.), *Beginning literacy with language* (pp. 223-255). Baltimore: Paul Brookes.

Dickinson, D. K., & Tabors, P. O. (2001). *Beginning literacy with language: Young children learning at home and school.* Baltimore: Brookes Publishing.

Durden, T., & Dangel, J. R. (2008). Teacher-involved conversations with young children during small group activity. *Early Years, 28,* 251-266.

Farkas, G., & Beron, K. (2004). The detailed age trajectory of oral vocabulary knowledge: Differences by class and race. *Social Science Research, 33,* 464-497. doi:10.1016/j.ssresearch.2003.08.001

Farran, D. C., Aydogan, C., Kang, S. J., & Lipsey, M. W. (2006). Preschool classroom environments and the quantity and quality of children's literacy and language behaviors. In D. K. Dickinson, & S. B. Neuman (Eds.), *Handbook of early literacy research* (Vol. 2, pp. 257-268). New York: The Guilford Press.

Gandara, P., & Maxwell-Jolly, J. (2006). Critical issues in developing the teacher corps for English learners. In K. Tellez, & H. C. Waxman (Eds.), *Preparing quality educators for English language learners: Research, policies, and pratices* (pp. 99-120).

Gest, S. D., Holland-Coviello, R., Welsh, J. A., Eicher-Catt, D. L., & Gill, S. (2006). Language development subcontexts in Head Start classrooms: Distinctive patterns of teacher talk during free play, mealtime, and book reading. *Early Education and Development, 17,* 293-315. doi:10.1207/s15566935eed1702_5

Gersten, R., Baker, S. K., Shanahan, T., Linan-Thompson, S., Collins, P., & Scarcella, R. (2007). *Effective literacy and English language instruction for English learners in the elementary grades.* (IES Practice Guide NCEE 2007-4011). http://ies.ed.gov/ncee/wwc/publications/practiceguides

Girolametto, L., & Weitzman, E. (2002). Responsiveness of child care providers in interactions with toddlers and preschoolers. *Language, Speech, and Hearing Services in Schools, 33,* 268-281. doi:10.1044/0161-1461(2002/022)

Goldenberg, C. (1992). Instructional conversations: Promoting comprehension through discussion. *The Reading Teacher, 46,* 316-326.

Justice, L. M., Mashburn, A. J., Hamre, B. K., & Pianta, R. C. (2008). Quality of language and literacy instruction in preschool classrooms serving at-risk pupils. *Early Childhood Research Quarterly, 23,* 51-68. doi:10.1016/j.ecresq.2007.09.004

Justice, L. M., Meier, J., & Walpole, S. (2005). Learning new words from storybooks: An efficacy study with at-risk kindergartners. *Language, Speech, and Hearing Services in Schools, 36,* 17. doi:10.1044/0161-1461(2005/003)

Kaderavek, J. N., & Sulzby, E. (2000). Narrative production by children with and without specific language impairment: Oral narratives and emergent readings. *Journal of Speech, Language, and Hearing Research, 43,* 34-49.

Massey, S. L., Pence, K. L., Justice, L. M., & Bowles, R. P. (2008). Educators' use of cognitively challenging questions in economically disadvantaged preschool classroom contexts. *Early Education and Development, 19,* 340-360. doi:10.1080/10409280801964119

Nagy, W., & Townsend, D. (2012). Words as tools: Learning academic vocabulary as language acquisition. *Reading Research Quarterly, 47,* 91-108. doi:10.1002/RRQ.011

National Center for Education Statistics (2012). *The Condition of Education: 2012.* Washington DC: US Department of Education.

Pianta, R. C., Howes, C., Burchinal, M., Bryant, D., Clifford, R., Early, D., & Barbarin, O. (2005). Features of pre-kindergarten programs, classrooms, and teachers: Do they predict observed classroom quality and child-teacher interactions? *Applied Developmental Science, 9,* 144-159. doi:10.1207/s1532480xads0903_2

Piasta, S. B., Justice, L. M., Cabell, S. Q., Wiggins, A. K., Turnbull, K. P., & Curenton, S. M. (in press). Impact of professional development on preschool teachers' conversational responsivity and children's linguistic productivity and complexity. *Early Childhood Research Quarterly.*

Peterson, D. S., & Taylor, B. M. (2012). Using higher order questioning to accelerate students' growth in reading. *The Reading Teacher, 65,*

295-304. doi:10.1002/TRTR.01045

Ryan, S., Ackerman, D. J., & Song, H. (2005). *Getting qualified and becoming knowledgeable: Preschool teachers perspectives on their professional preparation*. Unpublished Manuscript. Rutgers: The State University of New Jersey.

Sigel, I. E., Stinson, E. T., & Kim, M. (1993). Socialization of cognition: The distancing model. In R. H. Wozniak, & K. W. Fischer (Eds.), *Development in context: Acting and thinking in specific environments* (pp. 211-224). Hillsdale: Lawrence Erlbaum.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children*. National Academies Press.

Sorsby, A. J., & Martlew, M. (1991). Representational demands in mothers' talk to preschool children in two contexts: Picture book reading and a modeling task. *Journal of Child Language, 18,* 373-395. doi:10.1017/S0305000900011119

Stoddart, T., Pinal, A., Latzke, M., & Canaday, D. (2002). Integrating inquiry science and language development for English Language Learners. *Journal of Research in Science Teaching, 39,* 664-687. doi:10.1002/tea.10040

Tabors, P. O., & Snow, C. E. (2001). Young bilingual children and early literacy development. In S. B. Neuman, & D. K. Dickinson (Eds.), *Handbook for early literacy research* (pp. 159-178). New York: Guilford.

van Kleeck, A., Gillam, R. B., Hamilton, L., & McGrath, C. (1997). The relationship between middle-class parents' book-sharing discussion and their preschoolers' abstract language development. *Journal of Speech, Language, and Hearing Research, 40,* 1261-1271.

van Kleeck, A., Vander Woude, J., & Hammett, L. (2006). Fostering literal and inferential language skills in Head Start preschoolers with language impairment using scripted book-sharing discussion. *American Journal of Speech-Language Pathology, 15,* 85-96. doi:10.1044/1058-0360(2006/009)

Vygotsky, L. S. (1986). Thought and language. *The Massachusetts Institute of Technology*.

Wasik, B. A., & Bond, M. A. (2001). Beyond the pages of a book: Interactive book reading and language development in preschool classrooms. *Journal of Educational Psychology, 93,* 243-250. doi:10.1037/0022-0663.93.2.243

Wasik, B. A., Bond, M. A., & Hindman, A. (2006). The effects of a language and literacy intervention on Head Start children and teachers. *Journal of Educational Psychology, 98,* 63-74. doi:10.1037/0022-0663.98.1.63

Williams, J. A. (2001). Classroom conversations: Opportunities to learn for ESL students in mainstream classrooms. *The Reading Teacher, 54,* 750-757.

Zhang, J., & Stahl, K. A. D. (2011). Collaborative reasoning: Language-rich discussions for English Learners. *The Reading Teacher, 65,* 257-260. doi:10.1002/TRTR.01040