The demands placed upon children entering kindergarten are considerable. In addition to higher levels of pre-reading and math skills, young children are now expected to regulate their own behavior in increasingly complex academic and behavioral interactions (Blair & Razza, 2007; McClelland et al., 2007; McClelland & Cameron, 2011; Rimm-Kaufman, Pianta, & Cox, 2000). Some new kindergarten students are ready to interact as expected, while others are unprepared for this new set of challenges. Kindergarten teachers are most likely to identify children who struggle to follow directions, not children who struggle with academics, as unprepared for school (Rimm-Kaufman et al., 2000). Fortunately, preschool teachers can structure language interactions to provide a pathway for self-regulatory development. When teachers thoughtfully support children with appropriate language interactions, they are more likely to acquire independent control over their own actions before entering kindergarten, and eventually learn to make healthy choices on their own.

Other-Regulated vs. Self-Regulated: Lev Vygotsky’s Theoretical Framework

Self-regulation, according to Vygotsky, is the “mastery of one’s thinking,” (Gredler, 2009, p. 9). This mastery may manifest as regulation of emotions, management over a physical activity, or monitoring of cognitive tasks. Vygotsky’s theoretical framework, which is central to current research on self-regulation (Fox & Riconscente, 2008), identifies a child’s emerging language acquisition as a vital force in the development of self-regulatory skills. According to this theory, a growing child’s development is shaped by the specific social context in which he or she is enmeshed. Self-regulation develops through language interactions and experiences with the specific cultural tools of that social context. Adults scaffold the child’s self-regulatory development by providing interactions that model, require, and boost linguistic and self-regulatory skills at the upper range of the child’s ability. This upper range is often referred to as the zone of proximal development.

As they develop increasingly sophisticated language, children progress through a typical cycle:

**Phase 1:** External speech, in which young children speak to others;

**Phase 2:** Private speech, in which the child talks to himself, beginning around the age of three years; and

**Phase 3:** Internal speech, in which the child uses language to think internally (completed around the age of seven years; Harris, 1990).

Language thus begins as a social tool, allowing the child to communicate with others, and only later becomes a tool for cognitive processing (Wertsch, 2008). During the private speech stage, thinking is external. As children acquire inner speech, thinking moves “underground,” inside the mind (p. 11). Language becomes thought, which becomes action, as illustrated in figure 1. Self-regulation is the mastery of thinking. Therefore,
Research Findings

How can early childhood educators effectively guide children through the process of becoming self-regulated rather than other-regulated? How can daily language interactions move this process forward?

Although the relationship between language and self-regulation still requires further investigation, decades of research in this area provide empirical support for Vygotsky’s theory and for specific practices that support young children in their development of self-regulatory skills. This research can inform efforts to prepare preschoolers for the increasingly rigorous demands they will experience in Kindergarten. In the following section, we summarize these research findings and then offer tips for how to use these in preschool classrooms. Think about the strategies you are already using in your classroom, as well as the reasons behind why they work. Also consider how you can tweak or amp-up the supports that you provide for the young children in your care.

Thinking in Pictures

Research suggests that inner speech is not fully developed until around the age of 7 (e.g. Winsler, DeLeon, Wallace, Carlton, & Wilson-Quayle, 2003; Winsler, Diaz, & Montero, 1997; Winsler, Diaz, Atencio, McCarthy, & Adams, 2000; Fernyhough & Fradley, 2005; Manfra & Winsler, 2006; McClelland et al., 2007). Preschool children think in pictures, not words. Ask a four year old to count a line of Cheerios and most typically developing children will do so accurately. Ask a four-year-old to count silently, and an interesting thing is likely to occur: he may attempt to count on his fingers, touch his fingers to his nose, or just plain

<table>
<thead>
<tr>
<th>Teacher Tip: Communicate with Words and Pictures</th>
</tr>
</thead>
<tbody>
<tr>
<td>In this case the cliché “a picture’s worth a thousand words” applies perfectly. Post classroom rules, procedures, and rituals in a visual format. Many teachers struggle, for instance, with the wigging and giggling of Circle Time. This challenge provides a good example of an appropriate time to use pictures, in tandem with language, to communicate expectations to young children.</td>
</tr>
<tr>
<td>1. Be explicit. Ask yourself, “What do I want my children to do, not what do I NOT want them to do?”</td>
</tr>
<tr>
<td>2. Create a Visual Reminder that represents the limit you want to set. For example, stage a class picture with everyone sitting in the circle, mouths closed, and eyes on the teacher while she reads a book.</td>
</tr>
<tr>
<td>3. Show them the Visual Reminder. Then state your expectation simply. “I want to hear what everyone has to say, but I can only hear one voice at a time. So the rule is: One voice at a time. When it’s my turn to talk, you will be silent. When it is your turn to talk, we (point to everyone in the circle) will be silent.”</td>
</tr>
<tr>
<td>4. Emphasize the reciprocal nature of this limit by adding another staged picture with one child talking and the rest of the group and the teacher listening intently.</td>
</tr>
<tr>
<td>5. After you have used the Visual Reminder to introduce the expectation, place it at eye level near your Circle.</td>
</tr>
<tr>
<td>6. Practice the skill often, always referring to the Visual Reminder.</td>
</tr>
<tr>
<td>7. Use the Visual Reminder when children need a check-up on this skill. When we’ve practiced the skill and referred to it often, sometimes we will need no words at all. We can simply point to the poster and wait.</td>
</tr>
</tbody>
</table>

Figure 1. The role of language in the young child’s journey from other-regulated to self-regulated

Figure Provided by the Authors
guess. Even if young children have mastered the concept of one to one correspondence, counting objects in their head is not possible because they have not yet developed inner speech.

**Preschool children think in pictures, not words.**

### The Value of Private Speech

Preschoolers often talk out loud to themselves as they attempt a difficult activity. Increased levels of this private speech in preschoolers have been associated with increased success on complex tasks (e.g. Berk & Landaue, 1993; Winsler, Diaz, & Montero, 1997; Winsler et al, 2000; Winsler et al, 2003). Observational studies have also demonstrated that self-talk increases as task complexity increases, then ceases when children reach their frustration level (Fernyhough & Fradley, 2005; Benigno, Burd, McNamara, Berh, & Farra, 2011; Al-Namlah, Fernyhough & Meins, 2006). These findings suggest that private speech supports children’s efforts to complete tasks that challenge them without exceeding their ability level.

### Facilitating Positive Choices

Preschool children need structured choices in order to learn self-regulatory behaviors. Winsler and colleagues (1997) video-recorded preschoolers performing cognitively demanding tasks while an adult scaffolded children’s efforts. The investigators found that, as expected, adult scaffolding resulted in better task performance; this result was stronger when children used private speech after the scaffolding. Adult support followed by private speech was the phenomenon linked to task success. The researchers propose that children need to actively participate in the progression from interpersonal collaboration to independent problem solving, or in Vygotskian terms, the process of moving from other-regulated action, to self-regulated action. In other words, children need attuned and analytical adult interactions that catalyze their own initiative. Although structured and guided language is a necessary prerequisite for self-regulation, this guidance should lead to independent choice-making. Children must practice making choices for themselves, even if this means they will make mistakes.

Choosing from specified options can be used throughout the day. Children can choose the center at

### Teacher Tip: Encourage and Model Self-Talk

Teachers can actively encourage private speech in preschoolers as a means to develop self-regulatory skills. Although silence may be necessary on occasion, young children’s school day should be filled with many opportunities for them to practice self-talk in both academic and social-emotional learning interactions.

1. **Listen** for spontaneous examples of private speech.
2. **When you hear it, encourage it.** “Hey, you talked yourself through calming down when you got frustrated that you had to wait for your turn on the swing. That was helpful! Good for you.”
3. **Model self-talk.** Talk yourself through a task when children are present. “I’m not sure what to do next on this puzzle. Let me try this piece. Nope, that didn’t work. This one also has a curve. Let’s try it. That worked!”
4. **Scaffold the development of private speech.** Ask open-ended but leading questions, such as, “I notice you tried this puzzle piece, but it didn’t seem to work. Why?” As the child discusses his or her choices, the teacher can guide him or her through helpful self-talk.
Teacher Tip: Two Positive Choices

In order to develop children’s initiative, Bailey (2000) suggests the practice of providing two positive choices.

1. Observe your classroom routines for a day or two.
   - What opportunities do students have to make choices?
   - Are there times when children have too many choices and chaos is likely to ensue?
   - Are there opportunities where choices are possible but not offered?
   - Are these choices you offer between a good and bad option (i.e. sit still or go to time out)?
   - If so, how could you reframe the choices to make both positive (i.e. sit with your hands in your lap or sit with your hands on your knees)?

2. Choose a time of the day to try the two positive choices strategy. We suggest choosing a time that is presenting you with a classroom management challenge. A good example is lining up for transitions.

3. Establish in your own mind what you want children to do. Again, think of what you want them TO do, not what you DON’T want them to do. In your mind, shift from “Line up without pushing” to “Line up with your hands and bodies in your own space.”

4. Choose two appropriate options. How many different ways could they line up with their hands and bodies in their own space? Think of some, and then select two.

5. State the two choices and show them with your own body. This provides them with an impromptu Visual Reminder. For example, “You can line up with hands straight up like a robot, just like this…” (Teacher models what this looks like) “…or with your hands in a bunny tail behind your back, just like this.”

Support General Language Development

Research suggests that self-regulation and private speech are closely connected with expressive language skills in general (Benigno et al., 2011; Daugherty & White, 2008; Smith, 2007; Cole et al., 2008; Manfra & Winsler, 2006). Manfra and Winsler (2006) found that preschoolers who were aware of their private speech were also more advanced in their expressive language skills, even after controlling for age. Furthermore, a positive attitude toward private speech correlated to more advanced language skills. They propose that the “rich use of language provides children with more experience of hearing their own voice in multiple contexts. Such experience may help children understand that they can use speech to not only communicate with others but also that they can overtly communicate with themselves” (p. 547).

Special Populations

All of these practices are especially critical for children from special populations. Winsler and colleagues (2000) studied the private speech of
preschoolers who were identified as exhibiting behavior problems. They found that children with behavioral problems at age three tended to have identifiable behavior problems in Kindergarten. Moreover, they found that the more private speech preschoolers used, the less likely they were to exhibit behavior problems (Winsler et al, 2003). Similar studies have yielded similar results with other at-risk populations, including children with learning disabilities, Attention Deficit/Hyperactivity Disorder (Berk & Landau, 1993), and children living in poverty (Daughtry & White, 2008).

Although all children benefit from rich early language experiences (Snow, Burns, & Griffin, 2000), private speech research suggests that strategies to promote the development of early language, private speech, and self-regulatory skills may be especially critical for children who are at risk for school problems. Preschoolers with physical, behavioral, or academic problems present teachers with special challenges, which many teachers feel ill-equipped to handle (Hemmeter, Ostrosky, & Fox, 2006). Children experiencing these types of challenges may have difficulty developing positive peer-competence even when fully included with their typically developing peers, often resulting in isolation (Kemple, Duncan, & Stragis, 2002). Moreover, research with school-age children suggests that teachers often avoid interacting with children who have behavior problems (Sutherland & Oswald, 2005). As a result, children who most need connection with peers and caregivers often become those least likely to experience attuned interactions (Bailey, 2011). However, avoidance will do little to

Teacher Tip: Engage in Rich Language Interactions Throughout the Day

Don’t practice what we call “drive-by communication”. In a busy classroom, it is easy to get caught up in the rush of activities, and interact only through brief commands, praises, and redirections (e.g. “Good job!” “Get down from there!” “Hands are not for hitting!”). Rich language interactions require more than just a few words. A rich interaction is an exchange in which adults and children have a back-and-forth, responsive dialogue. Children need experience hearing their own voices and the voices of their peers and teachers.

1. **Observe yourself for a day or two.** Make a list of all the times during the day when you can slow down and interact with children.
2. **Plan for rich interactions.** Make notes in your lesson plans about these times, and discuss them as a teaching team. Plan for who will be in charge of extraneous tasks such as preparing the craft lesson for later, and who will be talking to children. Treat these interactions as a part of your curriculum.
3. **Use books to spark conversations.** During transitions, on the playground, and during centers, ask children about the book you read in Circle Time. Carry short books in your apron, pull them out during a free moment, and see who wants to snuggle up for quick story. Then talk about it! Ask questions, listen closely to answers, then stretch the child’s ideas.

Teacher Tip: Cozy-Up with the Challenging Kids

To prevent more serious problems in the future, it is especially critical that preschool teachers engage frequently with the students who present the biggest challenges.

1. **Watch your class.** Who are the children most stretching your abilities as a wise and compassionate early educator? These are the kids who need you the most!
2. **Create a special time during each day to interact with a challenging student.** For an extroverted child, this may come in the form of playing a game on the playground or building towers during Center Time. For an introverted child, you may decide to read a story in the Book Nook.
3. **Offer this special language interaction time consistently.** As a teaching team, brainstorm ways to make this happen. Go to your administrator or director if you need support. The time you invest now will pay dividends for the rest of the child’s life.
4. **Keep track of how often you engage in these personal language interactions and how the child responds throughout the day.** Make decisions about when to decrease or increase these interactions based on the child’s needs.
5. **Check your attitude.** Challenging children will not benefit from interactions that are forced, manipulative, or strained. Find something loveable about this child and repeat it as a mantra. Remember, your care and compassion have the power to make a lifetime’s worth of difference for this child.
solve the challenges these children face, in the short or the long term.

**Make Every Word Count!**

When planning for instruction, we must consider how to arrange the classroom environment and activities in ways that foster the development of language and self-regulatory skills. The language children hear becomes internalized over time. By modeling self-regulatory private speech, we can help our students internalize thought patterns that will support their self-regulatory skills for years to come. By offering choices, we provide children opportunities to experience and learn from their own failures and successes. As they grow and mature, early language experiences will help children to master their thoughts and actions. As teachers, we must remember that the external language we model and encourage today will become the child's internal voice for a lifetime.

**References**


**About the Authors**

**Kristi Cheyney, M.Ed.**, is a Doctoral Fellow and graduate teaching assistant in the College of Education, Department of Special Education, School Psychology and Early Childhood Studies at the University of Florida.

**Jun Wang, M.S.**, is a doctoral student and research assistant in the College of Education, Department of Special Education, School Psychology and Early Childhood Studies at the University of Florida.

**Elizabeth Bettini, M.S.**, is a Doctoral Fellow and research assistant in the College of Education, Department of Special Education, School Psychology and Early Childhood Studies at the University of Florida.

---

**Council for Professional Recognition Announces the Release of CDA 2.0 – Advancing the Professional Development Experience**

On June 1, 2013, the Council for Professional Recognition celebrated a significant milestone in the successful launch of the Child Development Associate (CDA) Credentialing SystemTM, making it even more valuable for the early childhood field. CDA 2.0 will advance the professional development experience for early childhood professionals across the nation. The new CDA National Credentialing SystemTM revolutionalizes entry-level credentialing utilizing the latest technology, allowing CDA candidates to apply or renew their CDA online; choose a CDA Professional Development Specialist to support them through the credentialing process; and complete the CDA Exam at a local Pearson-Vue testing center. Learn more by visiting the Council website.

Announcement courtesy of SECA

---

**Thank You, Reviewers**

The Southern Early Childhood Association expresses its gratitude to these content experts who reviewed the manuscripts published in this issue, and the previous issue, of *Dimensions of Early Childhood*.

**Reviewers for Vol 41, Num 1, 2013**

<table>
<thead>
<tr>
<th>Kathy Morrison</th>
<th>Wilma Robles-Melendez</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denise Da Ros-Voseles</td>
<td>Heidi Meier</td>
</tr>
<tr>
<td>Jaesook Gilbert</td>
<td>Ruslan Slutsky</td>
</tr>
<tr>
<td>Lynne Weinick</td>
<td>Jeffrey Leffler</td>
</tr>
<tr>
<td>Anne Levy</td>
<td>Xin Gao</td>
</tr>
<tr>
<td>Y. Pang</td>
<td>Anita McLeod</td>
</tr>
<tr>
<td>Megan Blackburn</td>
<td>Boyoung Park</td>
</tr>
<tr>
<td>Gloria Foreman McGee</td>
<td>Lisa Miller</td>
</tr>
<tr>
<td>Anne Eddowes</td>
<td></td>
</tr>
<tr>
<td>Sophia Han</td>
<td></td>
</tr>
</tbody>
</table>

**Reviewers for Vol 41, Num 2, 2013**

<table>
<thead>
<tr>
<th>Merilee Nevins</th>
<th>Jeff Leffler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connie Casha</td>
<td>Cynthia Jackson</td>
</tr>
<tr>
<td>Catheryn Weitman</td>
<td></td>
</tr>
<tr>
<td>Nancy Coghill</td>
<td></td>
</tr>
<tr>
<td>Laverne Warner</td>
<td></td>
</tr>
<tr>
<td>Michelle Cutler-Ervin</td>
<td></td>
</tr>
<tr>
<td>Bobbie Warash</td>
<td></td>
</tr>
<tr>
<td>Youlim Bae</td>
<td></td>
</tr>
<tr>
<td>Anita McLeod</td>
<td></td>
</tr>
<tr>
<td>Michelle Brunson</td>
<td></td>
</tr>
</tbody>
</table>