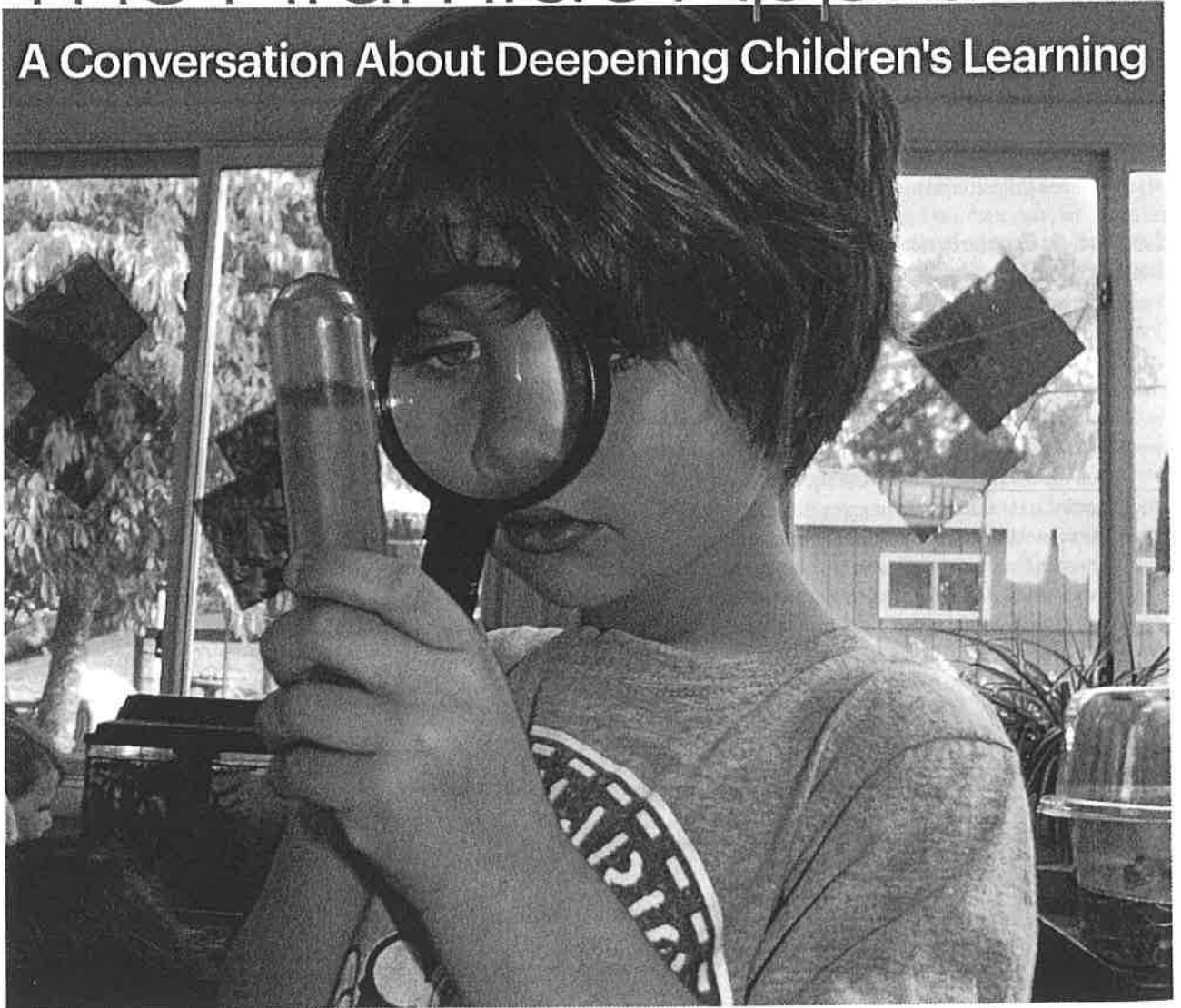


# The Piramide Approach

## A Conversation About Deepening Children's Learning



Ruth Robinson Saxton, Amy Laura Dombro, Gary E. Bingham, and Wendy Kelly

Prekindergarten children share some comments about a six-week water project: "We are learning about water. We had a fun water scavenger hunt in our school." "We went on a field trip to find water outside. We found a creek and took pictures and water samples back with us." "It was so cool to see the waterfall and to try and make a waterfall in our classroom!"

**Y**OUNG CHILDREN ARE CAPABLE OF MEANINGFUL LEARNING THAT goes beyond simple skill development such as naming colors or letters or copying patterns. With intentional planning and instruction, teachers can offer meaningful learning experiences that go beneath the surface to allow young children to make effective discoveries (Epstein 2007). Effective teaching involves the here and now and helps children create deeper connections between ideas and experiences.

Generally, teachers in US early childhood settings offer children socially positive interactions, but research suggests that many environments are academically passive and show little intentionality on the part of teachers (Pianta et al. 2008; Maxwell et al. 2009). Intentional teachers offer chil-

dren purposeful and meaningful activities as well as rich language learning opportunities. They thoughtfully expand and scaffold children's learning (Pianta & La Paro 2003).

After 30 years of working with teachers in the Netherlands, Jef van Kuyk observed a lack of intentionality in early childhood classrooms and missed opportunities to support learning: teachers led interesting activities, but they went only so far. This led him to realize that if we want children to learn how to think and be engaged lifelong learners, we have to broaden and deepen their activities and learning.

A decade ago van Kuyk transformed these insights into the Piramide Method (van Kuyk 2001, 2003, 2009) to address the needs and challenges posed by an increasing number of children, ages 3–6, who attend early education programs across the Netherlands after their families immigrated to the Netherlands. Working with Cito (a European testing and measurement company), he created Piramide to ensure that *all* children in the Netherlands received a quality education. Five years ago, Cito USA brought Piramide to the United States as an approach to help teachers become more intentional about deepening children's learning. While many of Piramide's concepts and practices can be observed in any high-quality developmentally appropriate program, there are several unique features of Piramide—including a four-step planning process that moves children's learning from the familiar and concrete (here and now) to more abstract and higher-level (representational) thinking skills.

### What is the Piramide Approach?

Piramide (PEER-uh-meed-uh) offers teachers and teacher educators insight into how children learn, as well as strategies and tools to help teachers become more intentional about what they say and do to deepen children's learning. Piramide is not a prescribed curriculum with fixed activities and materials, but a process for scaffolding children's learning during play and teacher-introduced projects.

The extended time offered by projects lasting four weeks or more is crucial to the goal of deepening learning in early childhood settings (Glassman & Whaley 2000). Teachers can use predesigned project books or they can create their own projects based on the children's interests

and needs. Each Piramide project focuses on a developmental domain or content area (social-emotional, perception, math, spatial orientation, science). Projects are developed for long-term cycles of learning for 3-, 4-, and 5-year-olds. A few Piramide project titles for 4-year-olds are *Storybook Homes* (language and literacy), *Water Works* (science), and *Leaf Detectives* (temporal orientation).

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As children engage in meaningful learning, teachers can give one-on-one attention to those who need extra support or additional challenges. During small group activities, children learn from one another. Play activities and projects can be adapted to meet any child's needs and abilities.

During a recent project about water, teachers challenged a small group of kindergartners to gather two classroom objects they believed would float and two they thought would sink. Together, they predicted what would happen when they placed them in the water table. After seeing that the ball floated, Dylan said, "I think the stick will sink because it is heavier than the ball." Ashleigh added, "But remember, when we were at the pond the stick floated on the water." Based on a shared previous experience, they agreed that the stick would float. Dylan and Ashleigh were thrilled when their predictions were correct. When predictions were not accurate, the teacher asked reflective questions to help them determine why. For example, the children predicted that a marble would float because it was shaped like a ball. When it didn't, the teacher asked, "Why do you think the marble sank?" "What are some differences between the marble and a ball that might explain it?"

### Four cornerstones of learning

There are four guiding beliefs and corresponding cornerstones that provide the framework for the Piramide Approach. Each belief (and its cornerstone) is supported by the work of several developmental theorists, whose theories are summarized next. (For more information about the

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cornerstones that form the foundation of Piramide, see van Kuyk 2013.)

**Children learn best when they feel safe (Emotional/educational nearness).** The work of Bowlby (1969) and Ainsworth and colleagues (1978) sheds light on the importance of children's early attachment to a loving and consistent adult. When adults create relationships with children that allow them to be near and emotionally safe, children feel free to explore, play, and learn.

**Once children feel safe, they can risk learning at higher levels of complexity (Emotional/educational distance).** As children's sense of safety and security grows, they develop trust in you and in themselves, according to Erik Erikson's theory of identity development ([1959] 1980). Children feel confident and competent enough to move out independently into the world around them and take risks as they play, explore, and learn. Irving Sigel (1993) described this process of emotional and educational "distancing" in his seminal work about learners.

**Children are capable of learning on their own (Initiative of the learner).** The constructivist theories of Piaget (1929) and others say that children "construct" or create their own knowledge through active experiences with materials and people. Children take the initiative as learners when teachers provide a rich, attractive environment with engaging activities.

**Children are capable of learning with greater speed and depth when a more knowledgeable person guides their thinking (Initiative of the teacher).**

Vygotsky's (1978) sociocultural theory highlights the important role that the teacher plays in deepening children's learning through *scaffolding*—helping children achieve a level of learning they couldn't reach on their own. At times intentional teachers decide to scaffold children's learning by modeling behaviors, asking questions to deepen thinking and understanding, and commenting and expanding on children's involvement to guide them to more complex knowledge and behavior.

### **Balancing teacher and child initiative**

The balance between teachers' initiative and children's initiative plays a key role in the Piramide Approach. Teachers set up learning centers and activities that challenge children at all levels, and then observe and step in as needed to support children's learning. Children who have mastered an activity might also scaffold others who are still working on a particular skill.

## **What is deepening learning and why does it matter?**

Prekindergarten children engaged in a project about fairy tales and storytelling work collaboratively to construct a fairy tale village inside their sandbox. The process of imagining, planning, finding materials, and working together to build a three-dimensional model of their two-dimensional plan is an intentional, rich activity that results in deep and meaningful learning.

Four-year-old Coleman describes their planning process: "First we planned out what we wanted in our fairy tale village. We talked about it and wrote down our ideas. We wanted a castle and a bridge to get the people out of the castle. We used foil for the pond to hold the water." His classmate Abby adds, "After we wrote all the things we wanted to have, we talked about where to put everything. I helped get water so the sand would stand up!"

Deepening learning helps children move from familiar, concrete, hands-on experiences and understanding to new, abstract, in-the-head learning. It leads children to represent what they have learned through drawing, writing stories, and reenacting their experiences. They think about and imagine the past and future. Using Piramide's terms, this is moving from nearness to distance.

In the example above, the children used their prior connection with the fairy tale stories to re-create the scenes and imagine and build new ones. They could take distance by answering questions about things that happened in the past (in the stories) or have not yet happened (in their invented fairy tale village). Deepening learning is an ongoing process that takes place over months and years, so it is important to encourage children to revisit content in meaningful ways throughout the pre-K years.

### **The Four Cornerstones of Piramide**



### **Four-step distancing process to deepen learning**

Piramide offers a four-step distancing process to deepen children's learning: orientation, demonstration, broadening, and deepening (ODBD). Activities and instruction begin very close to a child's familiar experiences and gradually "take more and more distance from the child's experience" (van Kuyk 2009, 216).

The distancing process helps teachers think about how to take any concept to a higher level. Deepening learning about colors, for example, might mean planning activities that intentionally move children along a continuum from

basic to more advanced color concepts as described by Anselmo (1985) in the following progression:

- Color awareness (child can visually discriminate one color from another)
- Identifying colors (child can point to the color you name)
- Naming color (child uses color word correctly)
- Color matching or sorting
- Mixing colors to create a new color
- Recognizing color patterns
- Using color to represent ideas (yellow for a sunny day)

Similarly, Clements and Sarama (2009) outline the developmental progression of children's math learning from age 1 to 5.

- Precounters (no verbal counting)
- Chanters (singsong)
- Reciters (say numbers, maybe not in order)
- Corresponders (apply one-to-one correspondence)
- Counters (can answer "how many?")
- Producers (first of small numbers, and then 10+).

The authors explain that when teachers have this knowledge of development they can more effectively

sequence activities that are appropriate for the child. Sequencing activities to intentionally support children's development and deepen learning is what the Piramide Approach is all about.

Next, we look at the four-step distancing process in action, as Mr. Danny uses a Piramide four-week prekindergarten project to deepen learning about spatial orientation through the story of *The Gingerbread Man*, as retold by children's author Eric A. Kimmel. As you read, watch how children's learning is scaffolded from concrete and simple concepts (such as naming and moving body parts in specific ways) to more abstract skills (such as copying body positions with playdough figures or planning and building a block bridge so the gingerbread man can cross the water). Notice how Mr. Danny intentionally turns common classroom activities such as dancing and using playdough into increasingly challenging opportunities in which children can take the initiative to deepen their learning. When he recognizes that individual children are ready, he offers instructional support to help children explore and use more advanced ideas and skills.

**Orientation builds excitement by giving children the opportunity to explore and revisit the familiar.**

Mr. Danny explains: "I made a big paper gingerbread man for the door to create excitement about the new project and help children remember what they already knew about the story. We talked about how the gingerbread man has a head, arms, and legs like we do. We made a gingerbread house



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out of a box and we baked gingerbread cookies.” Children’s comments reflect their excitement and engagement.

**Kenzia:** “I shook the gingerbread man’s hand when I came to school this morning.”

**Bailey:** “It smells yummy.”

**Atajan:** “I made a window on the gingerbread house.”

**Demonstration presents new ideas and concepts using hands-on sensory activities.** Mr. Danny continues: “As we pantomimed the movements of the gingerbread man in the story, I observed children moving and could assess their understanding of spatial vocabulary, such as *up, down, forward, in the middle*. Children copied body positions and made playdough figures to look like position drawings. Using your own body to show a position is more concrete than representing that position in a drawing or with playdough figures.”

**In broadening, children’s thinking is expanded as they compare, contrast, and connect new learning to their own experiences.** Mr. Danny describes: “During this step, children danced with partners and copied each

other’s movements. They also moved in opposite ways from their partner. In small groups, they drew pictures and made up stories about characters that ran away or were chased by someone like the gingerbread man.” They learned spatial orientation concepts such as symmetry and mirror image by comparing body positions. They compared and contrasted chase scenes in other real and imagined stories.

**Deepening means that children use and represent what they have learned in new and creative ways.** Mr. Danny explains: “I placed a blue cloth on the floor in the block area and asked children, ‘How can you help the gingerbread man [a figurine] cross the water [cloth]?’” Children worked in small groups to develop strategies. One group used blocks to build a bridge above the water. This took several tries and lots of planning and discussion about the location of each block. Another group used Legos to construct a boat for the gingerbread man. As 4-year-old Karen explains, “We had to take it apart and add more blocks so it was big enough to carry the gingerbread man and his animal friends.” The children learned to retell a familiar story with a different ending and to create a three-dimensional path between two locations. They used

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play materials to creatively solve a problem that represented spatial concepts of location, size, distance, and modes of transportation.

### **Piramide promotes family–teacher interactions around learning**

Like all high-quality early childhood approaches, Piramide recognizes the important role that parents play in children's development and learning, encouraging teachers to make formal and informal connections with parents around projects. Pilot programs in the United States have found the four-step distancing process provides a common language for talking about children's learning (Knox et al. 2010). Because projects last for weeks, families are aware of what their children are doing in the classroom. They ask teachers questions such as, "What is my child learning, and how did she get to this point?"

### **Teachers' excitement creates natural opportunities and desire to communicate with families about what their child is learning and experiencing at school.**

Using Piramide creates excitement around children's learning, and as a result, teachers are enthusiastic and can talk more clearly about how children learn. Teachers' excitement creates natural opportunities and desire to

communicate with families about what their children are learning and experiencing at school. Each new project is described in a newsletter that is sent home to families. It includes activities that families can do at home to promote learning and items needed to enrich the project (e.g., shoeboxes to make gingerbread houses).

Teachers using the Piramide Approach engage in activities from decorating their door each week to adding new materials to the classroom. Attractive documentation in the hallway tells the story of what children are doing and learning, and both parents and children pay attention to it. Revisiting hallway displays helps children expand what they have learned and helps families know what is going on.

### **Teacher educators and Piramide**

The Piramide Approach uses many elements that are considered high-quality early childhood practice. With so many early childhood curricula and approaches for new and veteran teachers to learn about, why add Piramide to the list?

For the teacher educator, it seems that Piramide's unique emphasis on teacher thinking and planning—the four-step distancing process framework—helps student interns in the Birth Through Five teacher education

For additional information about the Piramide Approach and to learn about professional development opportunities, visit <http://piramideapproach.com>.

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program at Georgia State University be very intentional and use good instructional practices. First, students begin with what children know and then make personal connections to the topic. Second, they build on and broaden that prior knowledge with activities that develop the concepts through books, games, play centers, and teacher modeling. Finally, the interns help children use thinking skills such as predicting, comparing, role playing, and problem solving to deepen their learning. Students realize that teachers must plan and teach beyond surface facts and concepts if children are to build thinking skills.

Sequencing activities effectively and using questioning strategies to focus on increasingly higher and more distant levels of thinking and learning requires a lot of practice and a solid understanding of how children learn (Cunningham & Smith 2007). Professional development staff and teacher educators who are trained by Piramide help new and experienced teachers build these understandings and critical skills and reflect on their practices. They help teachers learn how to move young learners beyond rote or surface learning to more advanced levels of cognitive development and later school success.

### Summary

Piramide is widely implemented in the Netherlands, and interest is growing in the United States and other countries through collaborative conversations. We invite you to join the conversation about how this theory-based approach of scaffolding learning and its innovative four-step distancing

process can support teachers and teacher educators in ways that lead to deepening learning for young children.

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