# Integrating Principles of Universal Design Into the Early Childhood Curriculum

*How can teachers of young children ensure that ALL children have meaningful opportunities to learn? Implement these recommendations that have shown to be effective in today's diverse learning settings.*

Laurie A. Dinnebeil, Mary Boat, and Youlmi Bae

Automobile manufacturers understand how important it is to plan for the different sizes and shapes of car drivers. New vehicles come with electronic devices that enable the seat to move forward or back, and up or down, because designers understand that some people have long legs and others have short legs. Imagine manufacturing a car with an immovable seat that is built to the "average" driver. While it might be easier to manufacture a car like that, it certainly would be difficult to sell! Incorporating devices that allow drivers to easily change the position of the driver's seat is a great example of universal design.

Universal design is a concept that was originally used by architects and product designers to ensure that buildings and products can be used by people with a range of characteristics, interests, and abilities (CAST, 2004). The addition of sidewalk curb cuts is one example, because curb cuts help stroller pushers, wheelchair users, skateboarders, rollerbladers, and bike riders.

Principles of universal design are most useful in the creation and development of buildings or products, rather than making modifications or accommodations after the fact. Curb cuts are easy to plan into the design of a curb, but much more difficult to incorporate after the curb is installed. It is much easier to design wider hallways to accommodate wheelchairs than to widen building hallways after the building is completed.

> ## Design curriculum that is versatile and flexible.

Teachers are similar to architects or designers because they have responsibilities for building or designing settings and curriculum that help children learn and grow into productive citizens. It is possible to modify or adapt curriculum afterwards to meet the needs of diverse learners. However, it is much easier to initially design curriculum that is versatile and flexible so that learners with a wide range of interests, needs, and abilities can benefit from it.

Savvy early childhood teachers have always used principles of universal design to create curriculum designed for a wide variety of users because even *typical* young learners vary so much in terms of their interests and abilities. Given the wide range of developmental abilities in any group, early childhood teachers are wise to build in ways to make sure that all children benefit from a rich learning environment.

As more and more children with special needs and multiple languages are included in early childhood classrooms, the principles of universal design become even more important. All children, regardless of their abilities, needs, or cultural heritage should have access to a rich learning environment designed to help them acquire the skills they need to be successful in school and life. The purpose of this article is to identify ways that preschool teachers can apply Pisha and Coyne's (2001) major principles of universal design to their classrooms.

## Children Learn in More Than One Way

Learning occurs in many different ways and through many different senses (Pashler, McDaniel, Rohrer, & Bjork, 2008). Some children learn better by listening, others learn better by seeing, still others learn better by doing. Rarely is someone *only* an auditory or visual learner. Most

people, including children, learn best from a combination of all these approaches. The concept that learning is multisensory is built into every appropriate early childhood curriculum, so teachers provide young learners with many different ways of learning (Shams & Seitz, 2008).

Just as learners use many different approaches to explore and discover their world, it is also true that learners differ in the degree of structure and direction they need to learn a concept or skill. Some children are eager learners and need only the right setting to satisfy their curiosity about the world around them. Other learners find it more difficult to engage with people, toys, or materials, and might need more adult help or structure in order to learn (McWilliam & Casey, 2008). This is not true just for children with disabilities; it is true for all learners at some point. Not all children have the same internal motivation for learning.

In addition to motivation, some children might lack the ability to attend to important learning opportunities. They may need more explicit instructions or physical supports to help them focus. In many ways, *typical* children who are distractible by nature might need the same kinds of learning support that children with diagnosed disabilities need.

Wise teachers recognize that in addition to thinking about the sensory experiences that children need, they also must think about the kinds of learning supports and structures that children need to be successful (Milbourne & Campbell, 2007). It is important to incorporate this principle into the curriculum planning process. Planning for a multisensory approach to learning is easier than trying to modify a narrowly constructed lesson or activity after the

fact. While incorporating different ways of learning during the design phase of the curriculum might take more time initially, it will definitely pay off with more efficient and effective learning.

## Think Broadly About Learning

Children are learning all the time…not just during organized lessons or school activities. Young children, especially, have a curiosity about their world and are natural explorers. A quick analysis of state-mandated content standards makes it clear that young children have a lot to learn, far more than just letters and numbers. Thinking about learning in broad terms rather than restricted ones can help early childhood teachers appreciate their role as a guide to the world around them.

> *Young children are natural explorers.*

In many cases, life's important lessons occur when no one is paying attention. A critical developmental task during the early childhood years is to acquire and use prosocial skills—skills that enable children to function effectively and productively in groups, such as how to show respect and get along with others, and how to share and take turns (National Research Council, 2001). Learning these skills is just as important, if not more important, than learning traditional academic skills, yet some adults view these skills as unimportant because children aren't tested on them.

The concept of learning as broadly defined is especially important when

teachers consider meeting the needs of young children who speak languages other than English or who have identified delays and disabilities. Given the educational challenges these children face, the foundational skills for learning, skills that support children's access to the general curriculum, are often lacking.

For example, some young children with disabilities find communication difficult or challenging. Others might have difficulty maintaining relationships with their peers, while still others might have difficulty staying engaged in meaningful learning activities. IEP (Individualized Education Plan) or IFSP (Individualized Family Service Plan) teams might identify these foundational skills as important learning outcomes, skills that children need to use proficiently if they are to become academically successful.

Thinking about learning broadly is also consistent with principles of universal design. When teachers create learning activities that take a broad approach to learning, they help ensure that all children, regardless of their abilities, interests, or needs will be able to benefit from the curriculum (Division of Early Childhood, 2007).

The concept of open-ended explorations, rich experiences designed to address multiple developmental and academic skills, is important to include when determining outcomes for all children. Children's access to these experiences should never be sacrificed for the sake of higher scores on high-stakes accountability measures. Instead, teachers are urged to continue to appreciate the value that such in-depth learning experiences have for the developmental and academic success of all young children.

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## Children Show What They've Learned in More Than One Way

Just as there is more than one way to learn, there are also many different ways to demonstrate knowledge and skills. Some learners can talk about what they have learned, while others are better at representing (such as writing or drawing about) their learning. The most important way, however, to demonstrate learning is to use this new information and skills in daily life.

Again, savvy early childhood teachers understand that because knowledge can be demonstrated in so many different ways, documentation of children's learning can be accomplished in different formats.

Restricting assessment methods to one format restricts the ways children can demonstrate their learning.

*Performance assessment* describes the way teachers assess how children use information in their daily routines (McAfee & Leong, 2002). Performance assessment can take many different forms, but most often involves observations of student behaviors. Young children can easily demonstrate whether they know the names of colors by playing a board game. They show that they understand the concept of one-to-one correspondence by setting a table for snack correctly and independently.

Assessment of learning can and should take many different formats for all learners. While there are many purposes for assessment, teachers are most concerned with identifying

children's knowledge and skills in order to plan curriculum, help children learn, and monitor their progress (McLean, Wolery, & Bailey, 2004).

Providing *all* children with rich and varied opportunities to demonstrate their learning is an important way in which principles of universal design can be incorporated into the curriculum (Neisworth & Bagnato, 2005). With that in mind, teachers can incorporate methods to assess children's learning that are contextual in nature—that is, methods that focus on understanding how children use the knowledge and skills they are learning within the context of everyday routines and activities.

## Curriculum Standards Can Be Appropriate for All Children

States' early learning content standards were designed with *all* children in mind—not just children identified as typically developing. All children, regardless of their abilities or disabilities, deserve access to a rich educational experience, one that prepares them to be academically successful and productive later in life (Nolet & McLaughlin, 2000).

Curriculum standards such as those outlined in a state's early learning content standards provide a framework for planning, organizing, and implementing curriculum appropriate for all young children (Scott-Little, Kagan, & Frelow, 2006). They represent one tool that teachers can use to ensure that the classroom curriculum promotes academic success in later grades.

Early childhood teachers are challenged to create meaningful curriculum experiences that are accessible to children of different developmental stages, curriculum that allows them to become proficient and effective

Subjects & Predicates

learners throughout their educational careers. Indeed, federal legislation requires special education teams to ensure that learners with disabilities have access to the general education curriculum that is reflected by states' early learning content standards (Beckman, 2001).

Early childhood teachers are also mindful of key developmental tasks and foundational skills that children must acquire in order to be academically successful. Fortunately, curriculum content standards and a developmental approach to learning are not polar opposites. Teachers and other curriculum designers can create rich learning opportunities for young children that not only address important content standards, but at the same time encourage children's developmental progression in the areas of cognition, language, motor, and social/emotional development.

## There Is So Much to Learn

Early childhood teachers understand that rich learning experiences are best for young children. Consider the kinds of learnings that take place when children play with modeling compound. They learn how to manipulate the material with their hands, see how it can change shape, and perhaps discover something about different kinds of shapes and spatial concepts. What happens when different colors of modeling compound are available? How about different kinds of modeling tools? Small toys or objects? Different scents? Friends with whom to work? With the addition of these common items, the modeling compound activity becomes a rich learning experience that provides multiple opportunities to learn about a variety of skills or concepts.

- If different colors of modeling compound are available, children can learn about and use color names.

- Adding plastic knives and shaped cutters provides opportunities to integrate geometry.

- Including small objects such as toy cars or dolls enables children to explore spatial concepts.

- Providing inspiration with works of fine art enhances children's creativity and aesthetic development. One Head Start group decorated a wooden African elephant sculpture with modeling compound.

- When small groups explore dough together, children can use their prosocial skills.



*Provide all children with rich and varied opportunities to demonstrate their learning. Find methods that focus on understanding how children use the knowledge and skills they are learning within the context of everyday routines and activities.*

Subjects & Predicates

- Academic skills are apparent, such as when children count the number of modeling compound eggs they made for a bird's nest.

As every early childhood teacher knows, the learning opportunities with this medium are endless.

In contrast to the modeling compound experience, think about other lessons and curriculum activities that some children encounter—completing worksheets, repeating words, or teacher-directed craft projects. In most instances, there really is only one right way to complete the activity, and many times completion of these activities is difficult for many children—children with disabilities to be sure, but many typically-developing children as well.

Closed-ended activities like this are limited in their learning potential for children. In order for many children to complete the activity, modifications must be made, such as adult help, limiting the scope of the activity, or even restricting the child from participating. Clearly, learning experiences like these many times result in children who learn little or nothing that was intended.

> ## *Plan open-ended, meaningful curricular experiences.*

Therefore, effective teachers strive to plan open-ended curricular experiences that support learning of different skills or concepts that are relevant to all of the children in the classroom. Doing so helps to increase the probability that ALL

children have opportunities to learn and grow developmentally.

## Capitalize on Naturally Occurring Learning Opportunities

The most important learning experiences often occur beyond the context of teacher-planned and directed activities (Sandall et al., 2002). The daily routines and activities that comprise a child's typical day should be rich with opportunities to explore their environment, acquire, and practice fundamental learning skills. While this is particularly true for infants, toddlers, and preschoolers, it also applies to the daily routines of primary-aged children. Children in the primary grades should have multiple times during the day to **use** the foundational academic skills that they learn in the classroom, skills such as reading, writing, adding, and subtracting.

Incorporating these universal learning experiences into the day benefits all children, regardless of their ability levels. Children with limited abilities can practice important skills while children with specific gifts and talents can refine and enhance their skills in a particular area.

This is not to say that teacher-planned or -directed activities should be absent from the early childhood classroom. Well-planned, focused, explicit instruction is critical to helping children achieve important educational and developmental outcomes (National Association for the Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education, 2003).

Teachers and others interested in children's education, however, understand the educational value of child-directed activities as well as daily

tasks or routines such as watering plants, signing in for lunch count, or eating a meal with others (Mistrett, 2004; Wolery, 2005).

As curriculum architects, early childhood teachers use principles of universal design to make sure that children's days are filled with productive learning. In order for teachers to make the most of these naturally occurring learning opportunities they

- are familiar with the potential learning outcomes of a routine or daily activity,

- know the learning needs and goals of children in their classrooms, and

- plan for ways to embed focused instruction or learning experiences into these routines.

Capitalizing on learning opportunities means that teachers systematically look for ways to embed learning opportunities into routines and activities that interest and motivate children (Wolery, 2005).

> Teacher Sam knows that Peter, who has difficulty communicating with others, is very interested in trucks. Sam wants to give Peter many chances to learn and practice the skills he needs to communicate his wants and needs. One day Sam puts Peter's favorite truck on the top shelf, just out of his reach, so that Peter will have to ask someone for help—an opportunity to communicate his wants and needs!
>
> Sam is taking advantage of a naturally occurring learning situation to help Peter use an important skill. When Peter points to the truck on the top shelf, Sam capitalizes on the request to ask Peter what he wants. There are other toys on the top shelf, so just pointing to the shelf won't work. Sam

works with Peter to verbally ask for the truck. When the message is clear, Peter receives the truck.

## Implement Differentiated Instruction Early

The term *differentiated instruction* has been used for decades. It gained popularity in the field of education for children identified as gifted, and has been explored for teaching middle, secondary, and to a lesser degree early elementary education.

In differentiated instruction, teachers actively address the diverse learning needs of children in their classrooms. Teachers are responsive to individual children and try to create a "goodness of fit" for all children. The differentiated instruction model provides for children across the spectrum of learning needs, including children identified as gifted and children with identified disabilities (Tomlinson, 1995; 2001). Differentiating instruction requires that teachers be familiar with each learner's knowledge base, language, learning preferences or styles, and interests—and utilize this knowledge to provide appropriate experiences for all children (DEC, 2007).



Elaine Ward

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## What is differentiated instruction?

In this teaching method, teachers actively address the diverse learning needs of children. They are responsive to individual children and try to create a "goodness of fit" for all children. Differentiating instruction requires that teachers be familiar with each learner's knowledge base, language, learning preferences or styles, and interests—and utilize this knowledge to provide appropriate experiences for all children.

Teachers who successfully differentiate instruction understand and can implement diverse approaches that provide learners with multiple ways to explore curriculum content, process information, and create products that document learning outcomes (Tomlinson, 1995). This process is proactive and planned to be appropriate. Effective differentiation of instruction:

- is proactive rather than reactive,
- uses flexible grouping,
- varies materials and activities according to individual and small-group needs,
- employs variable pacing,
- is knowledge based, and
- is learner centered.

While effective differentiation of instruction requires intentional planning, unplanned differentiation plays an important role in effective learning as well (Owocki, 2005), especially in early childhood. Responding to and building on children's interests, a critical component of learner-centered experiences, requires the capacity to attend to child-initiated ideas and activities.

"Teachable moments" qualify as intentional teaching strategies for which wise teachers plan by knowing the interests, preferences, and curriculum needs of each child. This knowledge must come from on-going assessment of children and relationship building with them and their families. Thus, effectively capitalizing on children's interests, preferences, and initiation is a teacher-learned skill that is continuously refined, just like any other teaching skill.

Differentiated instruction can be applied across the early childhood years. However, the approaches

utilized may differ with children's ages to reflect specific goals and standards for learning at those levels. There are many ways a differentiated learning environment can vary. Tomlinson (1995) suggests considering the following progression:

- Concrete to abstract
- Simple to complex
- Basic to transformational (e.g., more manipulation of information)
- Fewer facets to more facets (e.g., more steps or directions)
- Smaller leaps to greater leaps
- More structured to more open
- Interdependence to independence
- Quicker to slower (e.g., more intense focus on a topic or activity)

To create varied learning opportunities for learners, a teacher must pay careful attention to how the environment is designed, enlist a range of teaching strategies, and provide learners with multiple ways to demonstrate their knowledge and skills. To identify appropriate strategies for a specific classroom, a teacher considers individual needs and preferences in the context of content, process, and products. Tomlinson (2001) suggests the following guidelines to differentiate instruction.

*Content*
- Learners must be able to access information and materials in multiple ways.
- Objectives and tasks align with learning goals.
- Instruction is concept focused and principle driven.

*Process*
- Flexible grouping is consistently used.
- Classroom management is key.

*Products*
- Initial and on-going assessments are required.
- Learners are actively engaged in their learning.
- Requirements for learner responses vary.

While there is no single approach for differentiated instruction, there are many examples of what a differentiated early learning environment might look like (see Figure 1). The process of differentiating will occur through both structured and unstructured planning (Owocki, 2005). Teachers build ways to differentiate into

- setup of the physical environment,
- choice of explorations and materials,
- planned instructional strategies,
- support for daily learning, and
- determining the logistics of the learning environment.

Effective differentiation involves planning. Differentiation is likely to fail if there is too much reliance on impromptu differentiation (Tomlinson, 1995).

## Offer Multiple Ways for Children to Demonstrate Learning

In addition to varying the content and process variables of learning, differentiating instruction requires providing children with multiple ways to demonstrate their learning (see Figure 2 for examples). Some young children may demonstrate knowledge verbally; others physically; and still others may construct, write, or draw. Acknowledging skill acquisition through only one or two modes (e.g., "verbally states numbers 1 to 10 in sequence") significantly limits the understanding of children's skills, as well as their opportunities for future growth.

Table 1 (p.11) depicts one way to think about a differentiated curriculum related to a popular early childhood topic—dinosaurs and their habitats. This table shows the many

## Figure 1. Ms. Jackson's Classroom: A Universally Designed Preschool Curriculum in Action

Ms. Jackson chose to pursue in depth a topic that interested her children and led them to learn more about science and nature. The class visited the Natural History Museum to see dinosaur bones and habitats. In the related classroom experiences, Ms. Jackson facilitated the development of skills related to early learning standards in math and literacy. The content in all three areas was explored through multiple avenues including direct instruction, reading books and other visuals, using a variety of play materials, engaging in sensory activities, and writing.

To facilitate the learning process, Ms. Jackson identified specific goals for the children's learning experiences. She set up the environment and structured learning to support these goals. Thus, Ms. Jackson offered children differentiated learning experiences.

For example, Ms. Jackson identified specific math and literacy skills to promote at the sensory table. Ms. Jackson paid attention to the many ways in which children demonstrated learning in this area (e.g., language development, social skills, fine motor skills).

Children used multiple senses to take in information and also experienced different levels of reinforcement and practice, as appropriate. Some children learned information by hearing Ms. Jackson talk or by reading a book. Other children were more engaged with manipulatives or dramatic play. Some children learned information by talking about it with a peer or an adult. The information and skills children were expected to acquire were available to them in multiple ways.

different ways in which both academic and developmental content can be addressed. Thinking about curriculum broadly allows teachers to incorporate many meaningful learning experiences for every young child.

## Practice Universal Curriculum Design

Meeting the developmental and academic learning needs of all the children in a classroom is no easy task. Given the wide developmental variations among typically developing children as well as the specialized intervention that children who speak other languages or who have identified delays and disabilities, many early childhood teachers wonder how to make sure that everyone benefits from a high-quality early childhood curriculum.

Three major principles of universal design for learning have been adapted by Pisha and Coyne (2001) to reflect an early childhood focus:

1. Learning differences occur at all levels so it is better to represent them as a continuum instead of in categories (e.g., children with disabilities, gifts, English as a Second Language, and typical development).

2. Anticipate learning differences and design curriculum to meet all learners' needs—rather than modifying a curriculum for some children.

3. Choose diverse and varied curriculum materials. Implement an open-ended curriculum—there should be more than one way to learn something, more than one way to show what has been learned, and more than one thing to learn.

## Figure 2. Ms. Jackson's Classroom: Children Demonstrate Learning in Multiple Ways

Ms. Jackson encouraged math skills such as counting, making quantity comparisons, classification, and adding sets by setting up a variety of learning experiences with concrete materials. The children worked on math skills at different levels of difficulty.

Both Kendra and Zoe practiced skills consistent with the learning goals for sensory table activities. Ms. Jackson observed, supported, and extended the children's learning as appropriate. She encouraged child-initiated learning and child interests while consistently addressing the planned learning goals.

Ms. Jackson also identified and supported unplanned learning. Zoe was working on counting from 1 to 10. She asked Zoe to tell her how many dinosaurs she found, prompting Zoe to count the dinosaurs she lined up. If necessary, Ms. Jackson would have modeled counting for Zoe. She encouraged Zoe to write down or draw pictures of the number of dinosaurs she found, and could have helped Zoe write a story the dinosaurs.

Kendra, who is a proficient counter and has a good understanding of one-to-one correspondence, sorted dinosaurs by color. While sorting and classifying are important math skills and intended goals of the sensory table activities, Kendra's actions also provided an opportunity for Ms. Jackson to scaffold Kendra's learning beyond the stated goals by asking questions that encourage combining sets (addition skills).

For example, Kendra told tell Ms. Jackson that she found three blue, two green, and five yellow dinosaurs. Ms. Jackson followed up by asking Kendra how many blue and green dinosaurs she had all together. She encouraged Kendra to make comparisons by asking which set had the most dinosaurs and which set had fewer.

Regardless of the direction in which Ms. Jackson took her interactions with the children, she was always aware of the goals of the activity; the individual learning needs, styles, and preferences of the children; the children's current skill levels; and ways in which she could capitalize on child-initiated learning opportunities.

Principles of universal design for learning help all educators to construct learning experiences that are meaningful for all young children, including those with diverse abilities. Using these principles, early childhood educators can design learning environments that are responsive to all young children's abilities, needs, and interests.

By creating learning experiences that reflect a belief in multiple styles of learning, early childhood educators can effectively differentiate instruction and offer a variety of ways for children to represent their learning. This student-centered approach to learning promotes the inclusion of all young children in the early childhood classroom.

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# Table 1. Differentiated Learning Environments for Diverse Multi-Age Preschool Classrooms

**Topic:** Dinosaurs and Their Habitats
**Content Areas:** Science, Social Studies, Math, Literacy
**Skill Domains:** Language, Cognitive, Social, Fine Motor, Gross Motor

| Learning Areas | Learning Materials | Differentiated Instruction Examples | Skill Demonstration Examples |
|---|---|---|---|
| Early Literacy | • Fiction and nonfiction books about dinosaurs and habitats at varying levels of difficulty for independent and shared reading activities<br>• Story boards<br>• Posters that identify various dinosaurs and their attributes<br>• Use of technology that promotes emergent literacy | Literacy skill development through:<br>• Individual use of reading materials<br>• Group interactive reading with questions to promote skills such as predict, retell, summarize, and basic comprehension<br>• Target questioning to scaffold learning at individual skill levels<br>• Use storyboards to retell and create stories | • Attend to activity<br>• Participate with others<br>• Take turns<br>• Communicate (verbal and non-verbal)<br>• Basic book knowledge skills<br>• Emergent literacy skills<br>• Early reading skills<br>• Reading skills |
| Writing | • Writing materials (markers, crayons, pencils, paper with and without lines, adaptive writing devices to aid in gripping writing utensils and securing paper in place)<br>• Access to technology for practice and exploration | • Fine motor development related to writing (e.g., grip, manipulate writing utensils)<br>• Early writing skill development (e.g., scribble, letter approximation, letter formation)<br>• Writing skill development (e.g., trace, copy, write independently)<br>• Use verbal prompts, modeling, physical prompts to individualize<br>• Target questions to scaffold for individual skill levels | • Attend to activity<br>• Participate with others<br>• Take turns<br>• Communicate (verbal and non-verbal)<br>• Early writing skills (e.g., scribble, letter formation)<br>• More advanced writing skills (word formation, sequencing, spacing) |
| Sensory Play/ Manipulatives | • Sensory table with sand, rocks<br>• Dinosaur and plant replicas<br>• Digging/sifting materials and tools such as brushes and goggles<br>• Measuring tools | • Individual and small-group engagement with materials for skill development across domains<br>• Partner and small-groups to engage in social interactions<br>• Use verbal prompts, modeling, physical prompts to individualize<br>• Target questioning to scaffold for individual skill levels | • Attend to activity<br>• Participate with others<br>• Take turns<br>• Communicate (verbal and non-verbal)<br>• Fine-motor skills (e.g., grip, dig, scoop, fill, pour)<br>• Early numeracy skill development (count, cardinality, 1:1 correspondence, classify)<br>• Basic numeracy skills (e.g., compare sets, add, subtract, basic facts)<br>• Measurement skills (e.g., conservation, weight, volume) |

# Table 1. Differentiated Learning Environments for Diverse Multi-Age Preschool Classrooms (continued)

| Dramatic Play | • Large fabric pieces (to create a cave or lake)<br>• Boxes and boards that children can design as trees<br>• Rocks, logs<br>• Dinosaur figures/ stuffed animals | • Individual and small group engagement with a variety of props for skill development across domains<br>• Partner and small groups to engage in social interactions<br>• Target questioning to scaffold for individual skills levels | • Attend to activity<br>• Participate with others<br>• Take turns<br>• Communicate (verbal and non-verbal)<br>• Fine motor skill development (manipulate materials)<br>• Gross motor skill development (e.g., movement)<br>• Demonstrate knowledge and understanding of concepts through conservation and use of materials |
|---|---|---|---|
| Creative Art | • Paper, markers, crayons<br>• Paints<br>• Modeling compound<br>• Diorama construction items (boxes, paper, glue, rocks, leaves, recycled items such as fabric textures)<br>• Papier maché, wood, wire to create a life- size dinosaur | • Individual and small-group engagement for skill development across domains<br>• Partner and small-groups engage in social interactions<br>• Target questions and encouraging responses to scaffold for individual skill levels | • Attend to activity<br>• Participate with others<br>• Take turns<br>• Communicate (verbal and non-verbal)<br>• Fine-motor skill development (manipulate materials)<br>• Demonstrate knowledge and understanding of concepts with materials<br>• Demonstrate basic literacy, math, science, and social studies concepts |
| Field Experience— Natural History Museum | • Students see and record (draw, take photos) of real/replica dinosaur bones and mock habitats<br>• Natural history museums can also be accessed on-line<br>• Go outside! | • Connect information and concepts to real-life daily experiences with animals, foods, and the environment | • Attend to activity<br>• Participate with others<br>• Take turns<br>• Communicate (verbal and non-verbal)<br>• Demonstrate basic literacy, math, science, and social studies concepts |

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## About the Authors

**Laurie A. Dinnebeil, Ph.D.,** is Professor and Dasbo Herb Chair, Inclusive Early Childhood Education, University of Toledo, Toledo, Ohio. She teaches graduate courses in early intervention and early childhood special education. Dinnebeil is a strong advocate for designing high-quality inclusive environments for ALL young children.

**Mary Boat, Ph.D.,** is Associate Professor of Early Childhood Education and Director of Graduate Studies, School of Education, University of Cincinnati, Cincinnati, Ohio. She teaches undergraduate and graduate courses on inclusive environments in early childhood and early intervention/early childhood special education. Boat's research includes studies of effective teacher instruction in inclusive preschool classrooms.

**Youlmi Bae, Ph.D.,** is a lecturer of Childcare Education, Dongnam Health College, Suwon, South Korea. She worked with preschool children in South Korea and young Korean American children in the Korean Academy in Toledo. Bae's research focus is on professional developmental programs for teachers who work with children with and without disabilities and early screening and assessment tools and programs for young children with special needs.

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