The Developmental Interaction Approach: Defining and Describing New Mexico’s Curriculum for State-funded Early Childhood Programs

Final Draft
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Note: This has been written in an effort to define and describe in detail the curricular approach that is expected to be implemented in New Mexico state-funded early childhood care and education programs. This is especially true of the “curriculum” when implementing New Mexico’s Authentic Observation Documentation Curriculum Planning Process. Any questions or comments should be directed to Dan Haggard, Deputy Director of Program, Early Childhood Services Division, CYFD (dan.haggard@state.nm.us)
Introduction

The fours’ classroom hums with activity. The children have just finished a meeting on the rug where they and teacher Frances co-wrote a thank you note to a rancher, thanking him for their recent trip to his ranch where they observed him shear a sheep. Three children are in the cooking area with a parent volunteer dyeing wool. Two children are working on the looms their teachers have created from wooden crates and nails. Two other children remain on the rug with Frances to dictate a story map of their experiences at the ranch. One child is curled up with *The Goat in the Rug* while someone else is looking at *Charlie Needs a Cloak*. In addition to these two children’s books, the shelf is filled with other books related to the children’s study of wool, sheep and goats, herding, and weaving. There is raw wool in baskets to touch and sniff. Four children are using clay; one of whom calls out that she’s made a sheep. The easel, the water table and the block and dramatic play areas are open. Some play there is related to the study, but some is not. The second teacher, Alberto, sits at a table with three children asking a question that provokes new ideas for further investigation. He asks “How might we find out if other animals must be sheared each year”?

In the living room of a family child care home not too far away, an infant is sound asleep. The provider carries a toddler who just woke up and brings him to the changing table. She talks to him about his nap and tells him she will give him a fresh diaper. They smile at each other, apparently knowing each other well. Two children sit nearby at a low table, where they are playing with dough. They giggle together as they knead the dough, poke it and slap it. The provider looks over at them and tells the child that she’s diapering, “Those two are having a great time with the dough. Is that what you’d like to do when we’re finished?” A fifth child snuggles against a pillow examining a laminated photograph of her family. The provider walks over to the children at the dough table and invites the child with the photo to bring all the photos there, too. The child joins them and all four children explore the properties of the dough with rolling pins and their fingers as they roll, pound and poke it. Their teacher describes their activities, “Jacobo is using the wooden roller and Liz is squishing her dough by pushing it really hard”.

How do these educators know what to do? This document outlines New Mexico’s Developmental Interaction Approach to early childhood curriculum as illustrated in the scenarios above. In so doing, it supports policy makers and guides early childhood educators as they make decisions that determine curriculum. Curriculum is the content of teaching that educators design intentionally to encourage learning processes; the development of children’s physical, social, emotional, linguistic, spiritual, and cognitive skills; and the acquisition of specific information and dispositions toward learning (Wiggins and McTighe, 1998). The subject of learning is children’s growing understanding of the world. Since language, literacy, and math skills are embedded in the real and interesting world in which we reside, children gain these skills as they
explore their environment and work with thoughtful educators. Children are meaning makers as they learn about themselves, their families, and their community.

Scientific research (Gebhard, 2009) demonstrates that early childhood is a vital period in children’s learning, care and development. Decades of brain research confirms that the early years establish the foundation on which later development is built because the structures supporting social, emotional and mental development are developed and the capacity to build these foundations decreases over time. In short,
1) Neural circuits, which create the foundation for learning, health and behavior, are most pliable during the early years,
2) Safe and supportive environments with responsive adults and good nutrition are the key to brain development, and
3) Social/emotional development and physical health are the foundation for future cognitive and language development.

Developmental neuroscience has provided insights into early brain development and function that now inform good early childhood practices. At the same time we understand more about the economic and human costs of early childhood poverty. More than one-fourth of New Mexico’s children spend all or part of their early childhood growing up in poverty (NM Kids Count, 2014). There are large achievement gaps and psychological distress resulting from poverty (Halle, et al, 2009). Early childhood programs can be part of a system of supports for families. The research findings on children’s achievement suggest that all children, including those living in the poorest communities, make academic gains in literacy and math achievement when they have teachers who encourage communication and reasoning, are sensitive to their interactions with children, and construct an atmosphere of respect, encouragement, and enthusiasm for learning (Howes, et al, 2006).

New Mexico’s Early Childhood Educators
The educators who serve New Mexico’s early care and education system are the key to quality programs. Working with young children and families involves emotional work; it is “infused with pleasure, passion, creativity, challenge and joy” (Hargreaves, 1997, p. 12). Thus, adults hold a commitment to learn about themselves and their personal and professional identities in addition to learning about children, families, and curricular content and implementation. Reflective practice elicits questions of philosophy, ethics and practice. As professionals, early childhood educators examine what happens in and outside of their individual settings and reflect upon what works and what they might change (Cahill, 2009). Zeichner and Liston (1996) state that reflection requires wholeheartedness, open-mindedness, directness, and responsibility. We add a fifth disposition to this list: an educator’s knowledge of self. This set of attitudes lays the groundwork for reflection, a necessary attribute for the New Mexican early childhood educator.
Wholeheartedness is a way of working with children and families that implies enthusiasm, energy and willingness to improve even at the risk of failure. Adults continue to learn when they reexamine their experiences and understand the power teachers have when they commit passionately and fully to their work -- work that is founded on relationships with children, families and the wider world. Educators collaborate in decision making with colleagues and families. Learning and growth occur in relationships with others: faculty, peers, children, mentors, and community members.

Open-mindedness is the ability to hear and understand contrasting perspectives, even when they challenge long-held opinions. In their daily practice, educators demonstrate open-mindedness when they readily allow other educators and families to observe their work and to discuss it honestly. Open-mindedness is a willingness to share and accept feedback recognizing that change may be threatening and difficult as well as satisfying and energizing. It involves negotiating perspectives hoping that the ideas and practices of others will strengthen one’s own. Delpit (1993) reminds us that we may not realize that what appears normal or natural to us is often the result of our cultures. Therefore educators engage in listening and open dialogue to understand when their biases are the cause of a misunderstanding.

Directness is defined as confident knowing (Dewey, 1938). Confident knowing leads an educator to trust her professional and personal intentions and to feel secure enough to pursue knowledge she does not already have. For the classroom teacher, confident knowing requires a deep understanding of the curriculum – language arts, science and math and the social sciences; and for the infant-toddler specialist, confident knowing demands knowledge of children and the ability to continue learning about them. In both cases, knowledge is coupled with perceptive understandings of each child’s development and unique characteristics. The professional strives for expert mastery of theory (e.g., mathematical thinking in young children) and the confidence to put theoretical understanding into practice, for example, confidently engaging children actively with manipulative and sensory materials that lead to children’s lasting comprehension. Adults employ the “texts of early childhood” (Cuffaro, 1991) such as paint, collage, blocks, clay, music and movement to make subject matter come alive. In this way, early care and education professionals are scientists and artists who pursue their work with intellectual curiosity and creativity. They learn about subjects and materials to become confident knowers.

The educator who serves home based or community settings has somewhat different expertise as a confident knower from those working in the classroom. For example, the subject knowledge for an early interventionist includes child development knowledge coupled with medical and environmental risk factors, specialized family education, and multidisciplinary teaming. As with the classroom teacher, these educators periodically review the effectiveness of their work in order to improve the quality of their work. They decide what more they must learn or practice in order to be self-assured. This professional also seeks feedback from others. Confident knowing is
evident when adults are seen engaged in learning: individually, with their colleagues and family members, and, of course, with children.

*Responsibility* is the obligation to do the right thing. At its essence, working with children and families has a moral purpose (Noddings, 1987), and educators are advocates who can make a difference in the lives of the children and families with whom they work. It is incumbent upon them to learn about shared power and accept personal responsibility for their actions. Responsibility implies that educators have an obligation to work toward fairness in their daily work. This includes the professional obligation to continue to develop knowledge of the field of early childhood care and education.

*Knowledge of Self* means understanding one’s inner feelings to clarify emotional reactions that form and sometimes distort (Palmer, 2010) the educator’s work. Working with young children and families can be stressful and exhausting. Emotions can be scary and sometimes adults avoid children’s strong feelings. Anger and conflict- or the prospect of either - can be particularly difficult to handle for the unaware educator. When educators understand their own feelings and what to do about how they feel, they can better understand children and form deep relationships with children, families and co-workers (Casper & Theilheimer, 2010).

**Creating a System to Support Curriculum Development**

Knowing that the early years are vitally important, educators, community members and policymakers develop benchmarks of quality: educators with specialized training in child development and early education, small class size and low staff-child ratio, programs that address all domains of development within a responsive environment for family and child well-being, and evaluation systems that support quality and inform professional development (Barnett & Frede, 2010). The young learner and the learning environment are closely connected. An infant learns to talk when adults talk with children and the children talk to each other. A preschooler learns to explore in a place where exploration is valued and made possible by adults.

Curriculum for young children involves the learner and shapes the learning environment. Yet the field of early childhood education does not promote any single curriculum model as “best.” The National Research Council and the Institute of Medicine report that no single early childhood curriculum model has been found to be superior in supporting children’s learning and preparation for formal schooling (2009). Their recommendations call for educators to plan curriculum that actively integrates the cognitive, social-emotional and physical domains. In this document we present the Developmental Interaction Approach to curriculum, which enables adults to plan for and enact rich curricular content in the developmental and cultural context of their group of children. Teachers and others who work directly with children and can get to know them well have the power and responsibility to create extensive learning experiences for them.
This curriculum framework is based on philosophical commitments as well as on the best available empirical evidence about young children’s learning and development.

We use the term *curriculum framework* to describe guidelines for early childhood educators who construct theory driven curriculum that emerges from their program and community and follows the principles of the Developmental Interaction Approach. It is not inflexible, academic, or formal and does not ask children or teachers to use a prescribed or imposed model. Instead, this approach offers a pedagogical structure; a theoretical stance, rather than a curriculum model. How each individual educator and community applies this framework will vary. With grounding in a shared vision and personal connections to a philosophy of teaching, adults deepen their commitment to thoughtful and intentional practices. Thus the educator is the perpetual developer of curriculum in each early childhood setting.

**The Importance of Development and Interaction**

What is Development? Development is an individual’s growth in the social, emotional, cognitive, linguistic, spiritual, or physical domains. It is a dynamic process that occurs through relationships, environments and experience. It is not predetermined nor linear yet individual growth and the contexts of development are connected. Children are active participants in their own development through personal interests and needs (Tout, *et al.*, 2013).

What is Interaction? As active learners, young children need opportunities to observe objects, people and events in their world, form hypotheses, try them out, observe what happens, and formulate answers (Dewey, 1944; Glassman, 2001). Children work alongside others in discovery and dialogue, asking meaningful questions and solving problems. Learning is with peers and adults (Edwards, Gandini, & Forman, 1998), not something that is done to the child, but rather something a child does (Firlik, 1994).

Several theorists lay the groundwork for the Developmental Interaction Approach’s pedagogical structure. John Dewey’s emphasis on education for democracy (1916), his understanding that children learn through experience with the world and with each other (1938), his support for the arts in education (1934), and his discussions of reflection (1910) underpin the Developmental Interaction Approach. Lucy Sprague Mitchell, Caroline Pratt, Harriet Johnson, and other groundbreaking educators involved with the Bureau of Educational Experiments, Bank Street College’s predecessor, demonstrated how Dewey’s ideas translate into direct work with young children.

The Developmental Interaction Approach also reflects Susan Isaacs’ recognition of children’s feelings (1930). She believed that intellectual growth and emotional development go hand in hand and emphasized the importance of play (1929). Much more recently, Dynamic Systems Theory (Thelen, 1996) illustrates how the developmental domains intertwine and how children’s temperament, experience, culture, and biology interact to influence each child’s unique development. The interconnectedness of developmental domains is also reflected in the work of
Vygotsky, who viewed children’s thought and language as entwined (1978). Thus the role of an educator is that of a facilitator providing scaffolding to assist children in their learning and consequent development (Diaz, Neal, & Amaya-Williams, 1990).

The theory and research that supports the Developmental Interaction Approach reflects a keen awareness that children investigate the worlds in which they live and recognizes the educator’s responsibility to interact frequently and respectfully with those people who are closest to the child. Bronfenbrenner’s Ecological Systems theory (1979) describes the concentric circles that surround every child, first the innermost circle or micro-system that includes the family, school, and other groups with whom the child associates on a regular basis and eventually the outer circle or macro-system of the culture at large. The Developmental Interaction Approach’s commitment to democracy shows respect for the child as a responsible member of both the smaller and the larger world.
The Developmental Interaction Approach: Principles of Practice

The name of this approach, Developmental Interaction, stems from the approach’s dual emphasis on who children are (development) and how their development and learning occurs (through their interaction with the world of people, ideas, and material objects). Thus the educators’ role centers on their

- understanding of children;
- inquisitive stance as they continue to learn about the children with whom they work;
- commitment to the intricacies of the many relationships involved in that work; and
- passion for increasing their general knowledge.

This section is organized by four large ideas and the practices of educators in relation to these concepts: Development, Interaction with the Social World, Interaction with the Physical World, and The Early Childhood Educator as Learner and Researcher. The nine principles of practice are divided into these sections.

The principles are:

1. All educational work is grounded in an integrated understanding of human development and an acceptance that people learn in different ways and at different rates.
2. Children’s families are an essential part of their education and care experience.
3. Diversity is a resource for adults and children.
4. Learning is social and children learn in interaction with each other and their environment.
5. Children engage intellectually and emotionally with materials, ideas, and people, as individuals and as a community.
6. Both adults and children ask and pursue answers to challenging and worthwhile questions.
7. Adults guide and facilitate learning and respect children as playful learners, experimenters, innovators, explorers, artists, and communicators.
8. Children and adults advocate for fairness and justice.
9. Adults become lifelong learners and inspire children to become lifelong learners.

Development

The developmental emphasis of the Developmental Interaction Approach concerns three of the nine pedagogical principles. The first is that work with children is grounded in a deep and well considered understanding of human development that acknowledges human differences. The second highlights how relationships with families that are based on respect lead to educators’ deepening understanding of each child’s unique circumstances. The third underlines the importance of diversity without minimizing the ways in which our diversities challenge us to communicate to understand one another.
Principle 1: All educational work is grounded in an integrated understanding of human
development and an acceptance that people learn in different ways and at different rates.
Development and a drive to learn begin in the prenatal period and extend throughout life. The
early years are an unparalleled time of rapid growth, particularly in sensory and brain
development. Theorists such as Jean Piaget and Erik Erikson often describe development as
occurring in stages, and they typically focus on a single developmental domain – social,
emotional, cognitive, linguistic, spiritual, or physical. In contrast, the Developmental Interaction
Approach considers all the domains equally important and inextricable from one another. This
approach also acknowledges that development does not occur along a progressive path but rather
lurches backward and forward, the result of many interacting influences. While many theories
generalize about all children, young children differ in temperament, learning style, home
environment, cultural background, strengths, abilities, and experiences that may be growth
inducing or adverse. These differences influence development and learning.

Principle 2: Children’s families are an essential part of their education and care experience.
Families are their children’s primary caregivers and educators and are valued partners in early
education and caregiving. The best care and education settings outside of the home are rooted in
the familiar cultural context of the family. Families transmit values, beliefs and a sense of
belonging to their children in the language of their home (Sanchez & Thorp, 1998). In addition to
putting children and families at ease, adults who communicate with children and families in their
home language have the advantage of understanding nuances and have a greater likelihood of
children and families understanding what the educator communicates.

Partnerships between families and the adults who work with their children that support the
family’s goals for the child are critical to the children’s academic success and later school
achievement (NRC, 2001a). Misunderstandings with children and families can occur but are
more easily resolved when educators examine their own cultural assumptions. Although early
care and education professionals who reflect on their own perspectives and are open to learning
about the families and children’s points of view may not always agree with families’ approaches,
they are better positioned to communicate effectively and openly, to learn from children and
families, and to develop close relationships. Families need information from their children’s
educators to support their children's learning and development, and they, in turn, can provide
educators with invaluable insights.

Principle 3: Diversity is a resource for adults and children.
Early care and education professionals recognize and understand that “there is no such thing as
developmental competence outside of a cultural context” (Bowman, 2006, as cited in Casper &
Theilheimer 2010, p. 222). Culture, particularly the individual culture of their family, influences
children deeply. It is “an intricate dynamic process that shapes and is shaped by how people live
and experience their everyday realities” (Williams and Norton, 2008, 104) and establishes the
social context within which children learn, grow, and develop. It is a complex whole of language, knowledge, beliefs, art, morals, laws, customs, and ways of living that one generation passes to the next (Cole, 1999). Social groups, the family, neighborhood, religious or ethnic groups within a society, explicitly or implicitly pass their customs, values, and moral principles to the young. Beginning at birth, the culture socializes children to become members of a society. But children are not just products of the surrounding culture. As children grow, they pick and choose selectively from the cultural influences they encounter, shaping their own cultural context over time (NRC & IM, 2001).

The Role of the Educator: Implementing Principles1-3
Development does not happen to children but rather children’s development results from their experiences in the world, with what they bring to those experiences, and with the way the adults in their lives help them to make sense of their experiences. Because children’s experiences vary, educators must understand how different experiences may impact development. For example, the child who has lived in multiple foster care settings may be less likely to trust adults than a child who has lived within one family context. When professionals respect and understand each child’s culture, experiences and abilities, they support children’s evolving capacities to learn both cognitively and emotionally. The Developmental Interaction Approach regards intellectual and affective development as interconnected.

Educators promote cultural awareness and acknowledge different ways of knowing (Moll, Amanit, Neff and Gonzalez, 1992) in the ways they set up space and materials and when they interact with children and families such that children develop a sense of identity and a connection to a community. They recognize bilingual and multilingual language development as a strength and support the maintenance of a child’s first language. Ideally adults in educational settings speak the language of the community of children served. Assessment should be done in the language of the home.

As educators work with young children who have exceptionalities, they offer them the routine support all children deserve and tailor that support to the child’s particular circumstances. Whenever possible, teachers, early intervention specialists, and other resource personnel serve children with special needs in inclusive environments, creating learning environments in which all children belong (Kaczmerek, 2006). Understanding diversity of development allows adults to plan deliberate curriculum strategies and coordinate planning and communication with all the adults toward support of the child.

Specialists in occupational therapy, physical therapy, speech and language, and special education collaborate with generalists and children’s families, constantly exchanging observations and suggestions. As often as they can, specialists engage with a child who has exceptionalities in the room with other children. The children learn from each other and the specialist observes the child
in the real life context. An inclusive classroom emphasizes children’s strengths and accommodates their needs with appropriate physical environments and materials. Inclusion of children with exceptionalities or delays has benefits for everyone. All of the children gain increased understanding and respect for others through their social interactions and peer engagement with other children who are both similar to and different from them.

Educators discuss curriculum with families so they gain an understanding of what their children do in their absence and of what they are learning. In addition, family members have much to offer the curriculum – cultural artifacts to examine, family stories to hear, and worksites to visit. For example, when three-year-old Roberto was recovering from surgery, Carly, his teacher, arranged to visit his home with three classmates. They had fun playing with Roberto and with his toys and had some questions about objects in his home. In particular the children were quite interested in large decorated candlesticks that had been in Roberto’s family a long time and represented their family’s religious heritage. Once Roberto returned to Carly’s class, his mom paid a visit and brought her candlesticks to show the group. The children were enraptured as she told them stories about many generations of her family using these candlesticks.

Teachers refer to developmental information such as New Mexico’s Early Learning Guidelines together with each child’s unique characteristics. Through observation and interaction, educators know individual children and their strengths, and family and cultural backgrounds. Such specific knowledge enables teachers to incorporate children’s social and emotional selves, linguistic backgrounds, physical and cognitive abilities and experiences in learning opportunities.
Interaction with the Social World

The interactional emphasis of the Developmental Interaction Approach has two dimensions. The first is interaction with the social world, with peers and adults. This emphasis embraces two additional principles of the approach. The first discussed below is that learning is a social endeavor. To learn subject matter and about themselves and others, children interact with each other, with the educators with whom they work, and with their families and communities. The second describes the way in which children and adults pursue knowledge and understanding through their social interactions.

Principle 4: Learning is social and children learn in interaction with each other, their educators, and their environment. Children learn with and because of the people around them. Learning occurs best in collaborative groups as children watch, listen to, and respond to each other. Research has shown that children construct their own knowledge through physical, social, and mental activity (Bredekamp & Copple, 1997; Piaget & Inhelder, 1969) and they are active learners. Their learning is mediated and linked to the sociocultural context (Vygotsky, 1986).

Curriculum begins with the children as they learn through relationships and experiences that integrate physical, social and cognitive development. The curriculum is comprehensive – integrating all domains of development and academic content areas. Children learn subject area content such as mathematics, science, and reading in age appropriate and meaningful ways when they use the skills of each subject area to investigate topics of interest to them.

Because children’s interaction with the social world drives their development, the educator is aware that children come to programs with diverse emotional and cognitive resources and varying levels of resilience, the ability to recover from or overcome difficult circumstances such as poverty or exposure to violence. Children from families living with poverty, for example, often enter formal schooling with lower levels of foundational skills such as those in language, reading, and mathematics. Educators use their expertise to make individual adaptations as needed to optimize learning for the diversity of children with whom they work, knowing that children gain language skills, for example, when they have other verbal children with whom to converse. Pretend play with one another, which most children want to do more than anything else, builds their language and thinking skills.

Principle 5: Both adults and children ask and pursue answers to challenging and worthwhile questions. As active learners, young children and the adults with whom they work, need opportunities to observe objects, people and events in their world, form hypotheses, try them out, observe what happens, and formulate answers (Dewey, 1944; Glassman, 2001). Both adults and children raise questions, based on what they find interesting in the environment. Then they set about finding
answers. For example, a one year old who wants a ball that rolled onto a blanket raises the question, “How can I get that ball?” without putting it into words. With an observant adult who supports her investigations without giving her the answers, the child discovers that she can pull the blanket toward her to reach the toy even though it is farther away than the length of her arm. A block bobbing on the water table motivates a four year old to test as many objects as he can find to discover what will sink and what will float. The observant adult notices the questions that children pursue even when children do not verbalize them. Her notes about the children’s questions enable her to ask provocative questions on the spot: “Will this penny sink or float?” “Will a peach float?” And, she is able to plan future curriculum that fits the children’s interests.

Children observe their environment and the people around them to learn more about social interactions and cultural practices. They develop verbal and nonverbal communication skills, sometimes in multiple languages. They gain control over strong emotions and regulate their behavior as they move through the preschool and kindergarten years.

The Role of the Educator: Implementing Principles 4 and 5
The educator creates the psychological environment of the classroom or home and supports, sometimes orchestrates, the social interactions there. Every child deserves consistent, predictable, reliable and responsive adults who are available to them both emotionally and cognitively. Nurturing and responsive relationships provide the foundation for healthy growth and development. These relationships help children develop a sense of security and trust. Infants and toddlers learn through reciprocal communication and interactions with adults in the context of routine care, play, and within an appropriate developmental environment. Preschoolers and kindergartners learn from investigative experiences in small groups and through whole group conversations that build a sense of community. Adults create those small group and large group experiences, raising provocative questions, pacing discussions carefully, enabling everyone to participate, and prompting children to clarify their thinking.

Learning occurs in a social environment with adults and more capable peers providing verbal and non-verbal assistance or scaffolding to help children stretch to perform at a higher level than they could reach independently (Vygotsky, 1978). Educators determine how and when to scaffold a child’s learning and gradually reduce support as the child begins to master the skill. The adults then set the stage for the next learning. Picture an adult and a three-year-old at a table with a 9-piece jigsaw puzzle that the child has not yet mastered. Although the adult is itching to place a piece in the puzzle himself, he instead shifts it slightly on the table to enable the child to see where it might fit. The child places it in the puzzle, takes another piece and proceeds until she finishes. The adult coaches her occasionally but only when she seems stumped, and he never does the puzzle for her. Upon finishing it, the child beams with delight and immediately dumps the puzzle and starts all over. This time, she needs no help from the adult who remains at the table with her to celebrate her achievement as she completes the puzzle again and again.
Interaction with the Physical World

The second interactional emphasis of the Developmental Interaction Approach is contact with the world of objects and ideas that emerge from that interaction. This emphasis embraces three additional principles of the approach. The first puts forth that children engage actively with materials, ideas, and people on several levels – both intellectually and emotionally and alone and with others. The second further emphasizes children’s active role as playful learners, experimenters, innovators, explorers, artists, and communicators. The third extends interaction beyond the walls of the classroom or home to the world as a whole. It acknowledges the Developmental Interaction Approach’s commitment to fairness and justice and lays the foundation for children’s pursuit of what they believe to be right for themselves and others.

Principle 6: Children engage intellectually and emotionally with materials, ideas, and people, as individuals and as a community.

Children learn through active investigation and first-hand action on the places and things around them. Given the opportunity, children explore with great curiosity and delight and acquire knowledge from people, written and graphic material, and especially from their own investigations. To explore the world, children go on field trips and social studies become the core of the curriculum.

Through social studies, children and their teachers explore the web of relationships that underlies daily life. These connections often are not apparent to children and can be invisible to adults as well. A child who says, “You may get your milk from a cow, but I get mine from the store” hasn’t thought about where the store gets it. When children trace the sources of the food they eat, they can begin to comprehend the interdependency that sustains them and their communities, and they can investigate and question the logic and order of the world around them. Such a study, which involves reading, writing, calculations, science experiments, and artistic representations, provides a way for the children to integrate, or fit together, what they are learning. Through discussions with one another, the children also simultaneously build their social environment and learn about their classroom community (Casper & Theilheimer 2010, p. 390).

Children learn through exploration of their own communities in places like the panadería or bakery, grocery stores, the fields, and more. Children learn through direct experience with their subject of study, and then enrich that experience with related activities in the classroom. At class meetings and educator facilitated group activities, they develop and exchange ideas. During independent work and play, they make their own choices, often in collaboration with friends. The teachers and children engage in an investigation for a long time. Infants and toddlers go on walks with their caregivers, taking in the world as they point to an airplane overhead or a lizard
on a rock. Their adults respond appreciatively with the words for what the children perceive around them, thus helping even very young children to make sense of their environment.

Principle 7: Adults guide and facilitate learning and respect children as playful learners, experimenters, innovators, explorers, artists, and communicators. A growing body of research supports “playful learning” (Hirsh-Pasek & Michnick Golinkoff, 2014) where teachers offer a rich core curriculum using a pedagogy of play. Studies support links between play and learning in the areas of language and literacy (Weisberg, Zosh, Hirsh-Pasek & Golinkoff, 2013), mathematical thinking (Fisher, Hirsh-Pasek, Golinkoff, Singer & Berk (2011), cause and effect (Gopnik & Walker, 2013), and creativity (Russ & Wallace (2013). Marcon’s longitudinal research (2002), for example, compares sixth graders who experienced child-initiated learning to those who experienced didactic, direct instruction or mixed approaches (didactic instruction and play-based learning). The study found that the children in the child-initiated, play-based classrooms showed superior social behaviors, fewer conduct disorders, enhanced academic performance and retention over those from didactic settings.

Play and investigation serve as the primary modes for learning. Play is how children find out about the world around them. All types of play – manipulative play, play with games, rough-and-tumble play, and socio-dramatic play – provide children with opportunities to experiment, observe what happens and learn (Rubin, Bukowski, & Parker, 1998). Through play children discover, create, improvise and imagine. As babies and toddlers, they use their senses, physical movements and the people around them to learn. Preschoolers construct knowledge through their play and build emotional and social skills as they develop intellectually. When children play with other children they create social groups, test out ideas, challenge each other’s thinking and build new understandings. As young children make friends or engage with provocative materials, the adult supports their interests. The educator interacts with them, asking questions, observing, and offering challenges so that children learn new skills and concepts and apply and adapt ones that are already established.

Principle 8: Children and adults advocate for fairness and justice. When adults understand the context of children’s lives, they provide meaningful opportunities for children to make sense of the world and imagine how they can make it a better place. Young children experience issues of unfairness and inequity in their daily lives. Some children experience violence in their own lives and seek to make sense of it. Others are keenly aware of when other children are unfair to them, but they also can be extremely kind to others. For example, as they choose their friends or are not chosen themselves, they understand issues of power and intolerance and the connection between the two. They can understand too about unfairness that goes beyond themselves and their social groups. Children ask questions about people who do not have enough food or do not have a home, and they worry about animals being maltreated.
The adult’s knowledge and understanding of each child is the basis for curricular strategies, content, materials and areas of investigation. And the educator’s knowledge of the community facilitates active engagement in the child’s world. From studying children the adult prepares the educational environment as the first step in planning curriculum. In the Developmental Interaction Approach, the educational environment includes both the classroom and the local community. Thus the educator arranges space indoors and plans how to use the community beyond. Opportunities to engage with the natural world are also an integral part of the educator’s planning.

The educator writes curriculum plans that build the skills of reading, writing, science, math, and the arts (painting, drawing, music and movement), through investigations as the learners represent and deepen their experiences (Vascellero, 2011). What follows is an example of an investigation in a classroom for 4 and 5 year olds:

Through visits to a local farm, the adults and children focus on the social sciences such as history and geography by studying chile farming. The children learn about people’s work, how the natural world can produce energy and food and how this work is hard and essential for many in their community. The teacher brings in reference books and children’s literature about chili and farming. The class studies types of chilies, soil, sun and temperatures needed for growing and then plans and plants chili gardens on the playground. In the dramatic play area the children play as distributors of chili, packaging and mailing written requests. They utilize their developing skills of measuring and counting. Opportunities for experiments, interviewing family members, stories, letter writing, reading folklore, map making, and cooking are all available to the teacher and children as they make sense of the world in which they live. Artistic and scientific experiences are nested in the community’s cultural context, resulting in an integrated curriculum that the children pursue in a variety of ways for several months.

Adults plan intentional curriculum that is content driven and emphasizes activities and experiences that encourage children to use their skills and capabilities as well as challenge them to learn new concepts and try something that is just beyond their present level. In addition to planning worthwhile investigations, learning opportunities are embedded in the daily routines. The classroom’s daily schedule reflects knowledge of how children learn, balancing quiet and active experiences; times indoors and outdoors; and individual, small group, and whole group activities; all of which engage children directly with materials. The children are the doers, using their bodies as well as their observation skills to learn.

Educators strive to provide for children’s engagement with the natural world. Outdoor spaces with both intentionally planned and spontaneous opportunities for rich exploration and meaning-making build children’s awareness and observational skills in children (Faber Taylor, et al,
Ladybugs in the yard spark children’s interest in insects, how they fly, what they eat, and their similarities and differences to other insects. Using books, scientific skills of observing and recording animal behavior, art materials, and mathematics, children can sustain the investigation over a long period of time. Such community investigations include a hands-on approach to nature and provide the opportunity to develop integrated natural science knowledge.

Field trips serve as the gathering of raw materials for investigations. For example, regular visits to the antique store across the road arouses children’s curiosity in the differences between the cultural artifacts of the past and those we use daily and take for granted. In this investigation, the culture and environment of the local community provides a rich curriculum, and classroom work links to the real life experiences of children and families, their cultures, their oral and written traditions, and stories and art. Families can participate in regularly organized outings to local parks and other natural areas to explore, play, reconnect, and learn with nature. Such trips can happen frequently and without a vehicle.

Thinking deeply with children about fairness, community building and democratic processes is at the core of the Developmental Interaction Approach. A curriculum of fairness connects children and teachers to current social issues. The educator encourages thoughtful participation in the development of a democratic classroom by acknowledging the intersections of culture, ethnicity, language, class, gender, age, diverse abilities, family structure, sexual orientation and race. Often children raise questions themselves or teachers extrapolate children’s questions from observations of children’s play (Cahill & Theilheimer, 1998) that prompt in-depth investigation. Through careful listening to children’s talk and with some well-placed questions (Why do you think Anthony is sad?) educators can set the stage for open and respectful dialogue. Many children see and hear the news and when a natural disaster or tragic event that people perpetuate occurs, they have some ideas about it from the vivid images on TV. The early care and education professionals in their lives are well-positioned to help children make whatever sense they can of such issues and, when possible to do something about it. Children can write letters, sell their cooking or baking to raise money to assist others, or find other ways to help. It is through investigations designed to study these social issues that we address dynamics of inclusion and exclusion and caring for others such that the early childhood classroom provides the context for social change.
The Early Childhood Educator as Learner and Researcher

The last principle guides the educator to engage in the intellectual work required to be an effective educator.

Principle 9: Educators are lifelong learners and inspire children to become lifelong learners. Adults develop each child’s disposition toward lifelong learning through engaged and enthusiastic commitment to learning themselves. The professional who remains well prepared to contribute to the learning and well-being of young children and families renews her own knowledge, skills and passion. Remaining active learners themselves, educators are like a mirror; shaping their own professional lives as they contribute to the lives of children and families.

Educators cannot be developed but instead they develop; it is an active engagement by which each professional drives the direction and goals of her learning. As Paulo Friere states “I cannot teach clearly unless I recognize my own ignorance, unless I identify what I do not know, what I have not mastered” (1996, p. 2). For some this might mean returning to school to continue their formal education. For others, involvement with organizations such as New Mexico Association for the Education of Young Children or the New Mexico chapter of the Council for Exceptional Children constitutes active engagement in the field of early care and education. Educators’ experiences, planning events and learning with colleagues from across the state enable them to keep current with the latest research and ideas and constantly renew their commitment to quality programming. Since local application is what counts (Buysse and Wesley, 2006), early care and education professionals gain most when they attend meetings with others who work with or near them, process new ideas with one another and discuss them further as they apply them in their settings.

Other types of active engagement take place within the community, such as serving as a volunteer board member of a nonprofit advocacy agency. Lastly, educators join peers for ongoing learning through teacher research and dialogue about their practice. Educators plan together, sharing children’s books, art materials, games and toys, and trip ideas. They grapple together with thorny situations and support each other, sometimes with ideas and sometimes just by listening. The choice and meaning of educators’ development is located within their personal and professional lives as well as in the context of their work and community.

Video proves an effective tool for examining one’s practice. Watching a replay of one’s interactions with children reveals both what educators are glad to see they have done and what they want to do differently. Videotapes offer rich fodder for team meetings or other professional development activities at which adults sit together to talk about their decisions and their instincts – what they have learned about children and what they do based on their gut reactions.
Regular opportunities for reflective supervision create a valuable context for professional growth. In these sessions, early care and education professionals examine their work to understand it together with a supportive and insightful supervisor. Using video or other observations, the two devote uninterrupted time to the early care and education professional’s work and whatever concerns her most about it. In addition to formal education and professional development activities, online resources, early childhood journals, and professional books provide a constant flow of new research and trends. When people who work together also read together and discuss what they read, they can consider how to use new information in their settings with their children and families.

Adults who plan curriculum “intentionally” – deliberately, purposefully and thoughtfully – root their work in current research and child development knowledge and connect it to the specific children in their care. As they document and monitor children’s learning, they collect information about themselves as well. They can use their observational notes to consider how they do what they do and what they might do differently. Together with colleagues, educators reflect on their work in a constant effort to improve it.

Working with children is an act of research. It involves daily observation, written reflections on individual children and the group, and purposeful study of issues and questions within everyday practice. The term “teacher as researcher” (Edwards, Gandini, & Forman, 1998) reminds us that educators collect information such as observations, work samples, children’s photos and conversations, and written interpretations to continuously document the learning process and construct meaning.

As educators make curriculum decisions, assessment is a central part of the process. The New Mexico Early Learning Guidelines (ELGs) provide reasonable expectations of individual child development and learning outcomes that inform educators as they begin the curriculum planning process. Adults implement their identified goals as they:

- Build relationships with children and families
- Plan learning opportunities, playful experiences and investigations that are age-appropriate, community relevant, and worthwhile.
- Observe the children in action.
- Reflect on the observations, asking, “What do the children know and do, and what can they reasonably do next”?
- Assess each child’s performance to chart ongoing development and interests using professional assessment tools and returning to the ELGs.
- Individualize to shape curriculum that allows children to take optimal advantage of the curriculum and teaching.
Assessment is part of an ongoing cycle that includes planning, documenting and evaluating children’s learning and enables educators, in partnership with families, children and other professionals, to plan effectively for children’s present and future learning, communicate about children’s learning and growth, identify children who may need additional support, and evaluate the effectiveness of learning opportunities, environments and experiences offered. When educators note that some children need extra support, adults differentiate or individualize their assessment and teaching strategies. Starting from “what the child already knows or can do,” the adults provide opportunities such as extended time, physical adaptations, and other curriculum modifications so that all children can remain engaged in learning.
Developmental Interaction Approach in Action

The next section of this document illustrates children’s investigations, how educators plan for them and how adults capitalize on the many serendipitous learning moments that occur in their work with children. It is divided into the three age groups we discuss in this document.

Infants and Toddlers (Birth to 2 years)
These youngest children are developing at a rapid pace. Their social interactions, physical achievements, and increasing self-regulation are integral parts of their daily work. Since babies are built to seek novelty, their days are filled with eager explorations of the world around them. With that in mind, the people responsible for their care and education develop responsive, respectful, and reciprocal relationships with them (Gonzalez-Mena & Eyer, 2012). Following the children’s cues, they create fascinating environments both physical and social.

The daily curriculum
Relationships are at the heart of curriculum for the youngest children. Human beings are wired from birth to form connections with other people, and babies learn about the world through their relationships with the important people in their lives (Casper & Theilheimer, 2010). Throughout these early years, children have new experiences and engage in familiar rituals and routines with the people who care about them. As a result of these experiences, the cells in their brains form synapses — extensions that connect to other cells — and unused cells and connections fall away. The first three years of life constitute a crucial period for healthy brain development.

On a day-to-day basis, the young child’s care experience begins with a warm greeting to the family and child as they arrive at the program. While the baby plays or continues a nap that began at home or on the way to the program, the family and caregiver chat about the baby’s morning and previous night and otherwise exchange information to keep everyone up to date. The family member says goodbye, whether or not the child seems to acknowledge it, and the day of care and play begins.

The room is thoughtfully designed with board books that young children can pull out easily, toys with movable parts that are never small enough for choking, soft toys, and lots of spaces to crawl and climb that have different textures for babies and toddlers to experience. Ideally the space is partially carpeted for crawling and tummy time on a soft surface and partially tiled for easy clean up after eating and other potentially messy activities. Rocking chairs and hammocks are comfortable places for adults to soothe the babies as they fall asleep or need comfort. Everything for the children is within their reach, while what caregivers need is easily accessible to the adults but not to the children. The space is well-organized and convenient for family members as well as teachers. It is clean and safe. The staff washes the toys and all surfaces regularly.
In center-based settings, family child care homes, or during home visits, the daily schedule or pacing depends on the children and when each of them is tired and hungry or alert and active. The curriculum revolves around care activities and play, and the adults recognize that both are learning experiences for the children. Scheduling tailored to individual children requires a great deal of communication and coordination on the part of the caregivers, who all must know which children are sleeping, who is about to go to sleep, who can benefit from active play at that moment and who needs some quiet time. With this kind of flexibility, ability to read the children and willingness to work as a team, the day flows in a way that suits each child best.

Since routines are an integral part of the day, teachers put as much thought into planning and facilitating them as they invest in preparing curriculum that is more obviously designed for learning. Adults tell babies what they are about to do before picking them up to move them. They talk to them about what they are eating, about falling asleep, and about having a diaper change. Diapering provides an opportunity for interaction between baby and adult. The teacher describes each action and involves the child in every step of the process. Meals are a time of delight and enjoyment as children control what and how much they eat and demonstrate new skills, feeding themselves as much as possible. Falling asleep and waking up are intimate moments that caregivers share with children, speaking softly to them as they help children’s bodies have the rest they need and as they welcome children back into active play with others.

The room is designed with space for babies who enjoy lying on their backs reaching for a mobile and for babies having tummy time on a soft surface, safe from other children who have enough room to crawl and toddlers who walk speedily from one intriguing spot to another. For the child who is just beginning to walk, sturdy low shelves become crucial elements of the curriculum as she grabs the edge, pulls to standing, and holds on, maneuvering on her own. Children who are walking thrive on their upright status and the range of discoveries they can now make as they explore a room rich in physical challenges and exciting experiences with materials.

**Interpersonal connections**

At programs that implement primary caregiving (Theilheimer, 2006) and in family child care homes and family, friend, and neighbor care, the child and family can rely on one person outside of their family to know them well. The primary caregiver conducts most care routines for the child while she is in care and communicates regularly with the family. When that person is not available, other adults step in, much in the way an extended family surrounds a young child with love and care.

The primary caregiver becomes expert at reading the child’s cues. She understands the meaning of the baby’s different cries and expressions. The child, in turn, comes to know the caregiver. In fact, the caregiver’s ways of interacting with the baby help to establish the baby’s expectations of people in general; they affect the baby’s sensory internal working model – sensations or feelings
that the baby associates with being loved. The baby remains attached to family members, and the secondary attachment she forms with her caregiver performs the dual function of supporting the baby’s initial attachment with the family while enhancing the baby’s experience of being cared for well. A baby held in a caregiver’s arms locks eyes with her, and through this sometimes silent, sometimes verbalized communication, intersubjectivity results (Rochat, 2001; Stern, 1985). That is, the baby and caregiver share emotions and are “on the same page.” As the baby gets a bit older and turns her focus outward, she and her caregiver focus together on a bird or squirrel, on another child playing across the room, on a toy, or on a parent just entering the room. The caregiver supports joint attention as she watches for the child’s interests and follows her gaze to share that interest with her. Joint attention lays the foundation for the many instances in which children and adults want to and must share focus in the future.

To many people’s surprise, relationships with peers are important to children from an early age. Babies are fascinated by slightly older children who move quickly and competently, yet are small enough to be closer to their eye level than are adults. Toddlers and even non-walkers will take objects from one another, since an object that another child manipulates is much more interesting than when it is stationary on a shelf. However, children of this age quickly become interested in something new, and when the child drops the toy, caregivers can return it to its original “owner” without any fussing from either child.

From very early on, children are remarkably compassionate. A very young child may hand a caregiver a crying child’s pacifier or bottle, knowing it will comfort him. Children who spend time in care together become almost like siblings, and, in addition to moving primary caregivers to the next age group with their children, programs plan for a group of children to move together. Such programmatic decisions recognize the importance of adult and peer relationships for very young children.

Even the youngest children sense the rapport between their families and the people who care for them during the day. Children reach for the photos of their families, covered in plastic and backed with Velcro to stick on the wall. Families and caregivers find various ways of remaining in steady communication with one another and collaborate on behalf of the child. An erasable board lists who will be picking up a child, and when she slept, had a diaper change, and ate. Daily notes for parents at pick-up time record special moments during the day. A password protected class blog captures the day in photos and quick captions. Staff is accessible to families via phone, text, and email as well.

**Engagement with the world**

At this age, children are taking in the world through their senses and their movements. They mouth whatever they can to learn more about whatever it is. They create problems to solve (“can I squeeze in there?”) and work persistently to solve them. Toys form the basis of their daily
curriculum, and those who work with infants and toddlers choose toys that enable children to make something happen. Teacher-caregivers avoid windup or electronic toys that require adult assistance to work. TV, computers, and video have no place in a room for children younger than two (American Academy of Pediatrics, n.d.), since children that young cannot make sense of the visual representations. Instead caregivers provide rattles and balls and toys with levers and buttons to push that give children the satisfaction of causing a reaction and enjoying its effect. Most children in this age range take pleasure in pulling apart puzzles with knobs, and some of them enjoy fitting the pieces back into the puzzle as well. A favorite material is a clear plastic tube about 2 or 3” in diameter that is affixed diagonally to the wall and has a bucket of balls that the child rolls through the tube. Once children are walking, they love carts and carriages that they load up and push around the room.

Children snuggle soft toys, too, or simply carry them as they navigate around the room. They are on the cusp of pretending with them and with toy food and other objects. Young toddlers may not use these objects as intended and instead may hand one to an adult who thanks the child and returns it. Children engage in lots of such reciprocal behaviors, which lay the foundation for conversations and turn taking.

Knowing that children of this age concentrate on moving and figuring out new ways to move, teachers have simple climbing equipment in the room itself — a carpeted ramp and a step to a low platform, for example. Or they may have an infant-size climber. Carpeted boxes challenge children to climb, too, and many children love climbing into them and sitting for a while to observe the activity of the room. Tunnels to crawl through offer the added attraction of hiding and being found. With gross motor equipment in the classroom, children have constant access to climbing and otherwise stretching their physical abilities.

In addition to activity indoors, children from the very youngest on up thrive on outings beyond the classroom. Leaving the room for the outside world provides new input from the natural and social world. One teacher may go for a walk around the block with two children in a double stroller. Or two or three children who are walking may go with a teacher down the hall. The change of scenery refreshes everyone and the machines, people, plants, and animals beyond the classroom enrich the curriculum.

Throughout the day, the adults acknowledge babies as they narrate what the babies do. “You’re climbing the stairs. Now you’re sitting down. And now you’re up again!” They go beyond acknowledging actions when they talk to a baby about what the child might think or feel, supporting the child’s growing sense of self (Meins, 1997). These descriptions surround the babies with meaningful talk directed to the children themselves. Soon enough the children are pointing and asking some form of “What’s that?” eager for the name of everything they notice. Books and songs contribute to this rich verbal environment. Very young children do not benefit
from a formal story time, but they thrive on the books a grown up reads aloud to one or two children who cuddle on her lap. Songs come about spontaneously, and very young children thrive when adults sing to them. Lively songs make children move to the music; quiet ones are soothing. Music playing in the background can set a calming or frenzied tone for the room as a whole, and adults choose it carefully.

Curriculum in this room for the youngest children holds them in a safe and comfortable space from which they can explore and learn about the world of people and objects. It reinforces their family relationships as it expands to include the adults and children with whom babies spend their days. It finds a safe balance of stimulation that is neither too much nor too little. The curriculum teaches babies that they can trust themselves and others and that the world is a good place to investigate.
Two’s and Threes (2-3 year olds)
Enter a room for twos and threes and you are in a busy place. The children move quickly and often unexpectedly, changing activity and mood more rapidly than many adults can anticipate. Twos and threes frequently have strong opinions but cannot articulate them clearly all the time. The adults who work with them face the challenge and thrill of knowing their young charges well and becoming adept at deciphering their signals. These early care and education professionals plan daily experiences that are both exciting and comforting.

The daily curriculum
The twos and threes are fascinated by comings and goings, appearances and disappearances and may protest strongly when their special person leaves after dropping them off in the morning. Their morning protests do not mean they will offer enthusiastic greetings at the end of the day, although they may. At this age, they become focused on whatever they are doing and may not want to stop. Besides, while saying goodbye in the morning is out of their control, they can decide for themselves if they want to say hello or not when their loved one returns. Working on issues of separation and return, twos in particular enjoy hiding and being found. They stuff toys into cabinets and remove them, only to stuff them in again. In this way, separation in its many guises becomes an essential part of the curriculum.

Most of the children in this age range are ready to run, jump, and climb wherever and whenever they can. Outdoor time on the playground or on outings is a must. During outings, walking or in a large wagon that holds six children, twos and threes take in the world, naming it, processing what they see, and asking “why?” Although they are famous for their short attention spans, they can stand enrapt, watching a bug or a truck for longer than most adults would imagine. In the playground or yard, these children stretch their capabilities, playing chasing games and figuring out slides and stairs, ladders and swings.

Their small motor coordination, too, has developed such that they can grasp the tiny knobs on some puzzles and can push large Lego® pieces together. Playdough to squeeze and pound, sand to pour and dump, and finger-paint to squish are among their favorites, and their adults are careful to make sure these items are safe if children ingest them.

While twos in particular often declare “mine” about almost everything, they are not usually proprietary about their work. They happily paint on one large sheet of paper, spread out like a table cloth over a low table. They use their entire bodies to paint or to draw or glue and usually make no claim to what they have created. Their interest is in the process, in the joy of moving and making something happen, not in the product.

By the end of the second year, most children experience a language explosion and the room is filled with talk from teachers and children. Children typically speak in single words and then
two-word sentences, still using actions and gestures to communicate. Marisela, for instance, grabs an adult’s hand and says, “Walking!” to guide the adult to the toys she wants to use next. This newfound ability to communicate can turn what used to be a frustrated 18-month-old into a calmer child who can now use words to get what she wants. Nonetheless, tantrums are not necessarily a thing of the past, since a two-year-old’s (and even a three-year-old’s) intense emotions can make a child’s language abilities temporarily inaccessible to her.  

**Interpersonal connections**  
The grownups with whom two- and three-year-olds spend their days are a source of stability and comfort. These adults also create exciting environments for the children to explore and experiences that engage them. Working with twos and threes means continually balancing what children know well and what is new to them, the soothing and the stimulating.  

Before the children arrive, the adults who work with them arrange the space and put out materials, some of which the children know well and others that are new and intriguing. For example, Maria and her two co-workers set up cornstarch and colored water for four children. The water table is open with a small amount of warm water and funnels and cups. The block area is stocked with simple shapes, animals and vehicles. Each adult positions herself near one or two areas. As children arrive with a family member, Maria and her colleagues greet them and invite the parents to stay for a few minutes, if they can, to read to their child before saying goodbye. This eases children’s transition into the day but is not possible for those adults who must rush to work.  

Goodbye routines are vital for some children. Every day, Charles gives his mom a hug and goes with Maria, who holds him at the window as they wave goodbye to Charles’ mom together. After she’s out of sight, they linger for a moment before Maria asks Charles if he’d like to fix her some breakfast and off they go to the plastic food and wooden stove and refrigerator. Maria has been Charles’ primary caregiver since he was tiny. He continues to rely on her first thing in the morning and periodically throughout the day as he returns for refueling at the safe base she provides. However, he spends most of the day playing on his own and with the other children.  

Charles and many other children in this age range find whatever their peers do to be contagious. One of them bangs on the table, and they all bang their spoons. One child uses the potty, and a troop of toddlers is ready to join her. In fact, toilet learning is not so hard when everyone is doing it. Much of their play is parallel to one another, but that does not mean that the other children are not important. Four children play on a large indoor structure, climbing up and sliding down. One child leaves to go to the play dough table, then another follows. Then the game is over and everyone disperses, although while they were playing they did not seem to be paying attention to one another at all.
The wise adult who works with twos and threes knows that peers are vital companions, especially when children have been together since they were babies. With this in mind, the grownups design spaces where children can interact in small groups – a sand table for four children, room for no more than four others at an art experience, and room for two at a snack table where children can help themselves. In small constellations, the children can pay more attention to one another and no one gets lost.

Children of this age can have a short fuse, and solutions to problems may be hard for them to see. For example, crowded together on the rug or in a family area, children may topple over on one another or crowd each other. The child who does not like that may bite, pinch or kick self-protectively but unacceptably. To avoid undue conflict, adults plan time so children are neither rushed nor bored and design space that allows enough room for everyone.

Two-year-olds can solve many problems for themselves and do not always need an adult to resolve situations for them. The vigilant adult watches to see when the children need help and steps in to do just enough to prevent children from getting hurt or hurting one another.

**Engagement with the world**
The twos and threes are gathered in the back of the building, watching a garbage truck. They see workers toss in bags. The truck then does something almost miraculous. Part of it lowers and when it lifts, the garbage bags are gone, compacted and in the truck. The children remain transfixed and continue watching until the workers finish the job and jump into the truck, waving to the children. This is curriculum.

What is interesting about a garbage truck? First of all, it is a part of the grownup world that these children experience regularly. Second, the truck is big and makes a lot of noise. Third, and perhaps most important, the truck makes something disappear.

Back in the classroom several children play with toy garbage trucks in the block area. Others read a book about a garbage truck with one of the grownups in the room. Two other children pretend to be the truck, although only those who know the children and their experiences well would recognize the noises and motions as what they are. This unlikely curriculum fascinates the children. They will build a garbage truck from cardboard boxes that they can sit in themselves and will branch out to include other trucks in their study, along with other jobs people in their community do using trucks.

The adults who work with these children know what to expect from their age group and, more importantly, observe closely and record what they see to design curriculum that fits their particular group. They stay in close touch with the families to know children better and for feedback about what works and what does not. For example, one day when the group sang “The
Wheels on the Truck” (to the tune of “The Wheels on the Bus”), Marisela walked away from the group and lingered near the climber. The next day, though, her father told Maria that Marisela kept singing something that sounded like “Round and round.” They realized then that although Marisela seemed disengaged from the group, she was paying attention from the distance she needed.

The twos and threes have a full day every day. Beginning with a separation from their families and with support from their caregivers throughout the day, they busily engage in a wide variety of experiences, often with or near one another. They play hard, they usually enjoy their food, and most of them sleep well. They are eager to engage in curriculum that interests them, and through it their language increases as does their knowledge of the world around them.
Preschoolers and Kindergarteners

The walls of the preschool and kindergarten rooms reveal the potential intensity and focus of the children’s work and play. Their paintings show the growing representational quality of their thinking. Neatly printed tags with words the child dictated to a teacher accompany many paintings, since the children talk about their work. When their teachers display a record of what the children say, the signs accompanying their artwork and block buildings support the children’s beginning understanding of the connection between written and spoken words. Charts document trips, class visitors, and the children’s daily discussions. Dramatic play now takes a major role in their lives and this area and the block area have a large share of the room along with areas for tactile materials, art, drawing and writing, scientific investigations, manipulatives, cooking, and woodworking plus a cozy reading area. Artwork and records of scientific observations hang in those areas. The room is abuzz with children playing in different areas, talking to each other or intently working on their own.

The daily curriculum

The day begins as families drop off their children or as the children arrive by bus. Teachers greet them and their family members, and the adults exchange a few words about the day before and the upcoming day’s activities. The teachers invite the children to the areas that are open at the start of the day. As with younger children, the teachers have set up areas of the room in advance, and children can plunge into an art activity, clay or water. Children busily set up projects for themselves at the drawing and writing table and take out manipulative materials to use at another table. Later in the day, many more areas will be open for them to use. Some children quickly say goodbye to their family members; others are more reluctant. Some involve themselves immediately in constructing a motel with recycled boxes and glue. Others prefer to read a book or just sit on an adult’s lap and watch the activity around them. One child pulls his mother to the attendance chart where he turns over his name. Only then will he give her a kiss and say goodbye. He remains at the chart, checking the room to make sure that all of the children there have turned over their names. If they have not, he approaches them for permission to do that job for them.

The children’s day follows a predictable schedule, which the teachers post using photographs of the room and written labels for each part of the day. The writing and graphics support what the children already know and can anticipate and also inform them of any unusual occurrence, such as a special guest. At morning meeting, they talk about what will happen during the rest of the day and what they will do in relation to the current study. Now, most of the children are able to sit together and pay attention to one another as they take turns talking, although some children sit on bumpy pads that help them to sit. The meeting is short, because, although children have greater capacity to sit and listen than previously, they still gain more from active experiences.
As with younger children, outdoor time is vital for four- and five-year-olds. They swing from the bars, climb and run and challenge themselves to slide down the pole like a firefighter. Some children hang back and would sit on a bench with the adults if the adults sat still. Instead, to learn as much as possible about the children in every setting, to supervise for safety, and to encourage physical exercise for everyone, the adults are up and about in children’s midst.

Often groups of three or four children go on small side trips with one adult to investigate something relevant to their area of study, to go to the public library, or to purchase something for the classroom. On one occasion, a small group visited the motel down the street to interview the owner. The teacher checked in advance to make sure it was a slow time for the hotelier, and the children generated their questions beforehand. Upon returning to the classroom from their trip, the children drew what they had seen and built a motel out of blocks. Then, using their drawings, block building, and the photos they and the adult took during their visit to the motel, they presented their findings to the rest of the group. Since everyone wanted a chance to go, the teacher made a list and proceeded to plan for additional small group visits to the motel.

Lists, charts, photos, and drawings make sense to children in this age range. The children themselves represent the world every day through their dramatic play indoors and in the yard. They use that play, which is now more elaborate than when they were younger, to imagine all sorts of things and to make sense of their experiences. They use real objects, such as telephones, an old laptop, and note pads for the motel office they are building, and improvise when they lack an object they need.

**Interpersonal connections**

Now peers are more important to the children than ever before. Indoors and outdoors, they play with each other, much of the time without needing an adult’s intervention. One hears children negotiating with, “I’ll be your best friend,” or “Then you can’t come to my party.” These offer opportunities for adults to raise questions and have open discussions about friendship and how it feels to be a best friend or to be excluded from a party. Four-year-olds may be sure about whom they like and whom they do not, but they may not be clear about their reasons, and classroom relationships can shift depending on any number of factors. Some children know that they can have an infinite number of friends. Others believe they can only have one at a time.

The adult’s job is to build community with these small people who care about each other and about their own place in the group. Skillfully led discussions air issues without preaching to children and shutting down conversation. As children continue to talk about what they think about friendship and how it works, they develop their ideas about what it means to be a member of their society, the classroom.
Engagement with the world
Preschoolers and kindergartners are ready to engage in long-term in-depth study of a multifaceted issue. Thinking about where they live and how parents earn their livings, this group of teachers chose to investigate tourism with the children. They began by asking the children what they would want visitors to their community to know about it, and the children drew pictures that illustrated and added to their answers. Out in the community, they took many photographs that they categorized and considered with their drawings. They labeled the categories and, at a class meeting, they discussed which categories were most important to include in brochures about the community and its highlights.

After a discussion of where visitors would stay, the children began visiting the motel. They set up a motel office in their classroom, and played visitor and hotelier there and with the motel they built from blocks. The motel they built included a pool, a laundry, and a restaurant. In answer to a teacher’s question about how people got to the motel, they built a network of roads leading to it from the highway. They began to think about where else visitors would eat and extended the study to include restaurants. As part of this segment, they visited several parents at their restaurant jobs, and one parent came to a class meeting to talk about his job as a cook. The children wrote thank you notes to their guests and to all the people they visited and interviewed. They charted all the restaurants in town, categorizing them by type.

In one class meeting, the children talked about a favorite restaurant on the plaza and the class voted to visit the restaurant for lunch and interview the chef to learn how he decides what to cook for all the visitors to their town. On the day of the field trip the children noticed two adolescents asking for money or food right outside the door of the restaurant. The children wondered who these people were and why they were asking for help. Their discussions were further enriched when, back at school, the teachers invited a mother who knew a lot about homelessness to answer children’s questions. The children learned that some people, even teenagers, do not have homes. After much discussion the class decided to have a bake sale and donate the money to the local homeless shelter.

Throughout their study, the children read and wrote and learned a wide range of literacy, numeracy, and engineering skills. They sorted and counted and created patterns as they developed their brochures. Their collaborative block building led them to measure, balance, and design as they developed a representation of what they saw on their trips. Through the restaurant and its cooking activities, they used mathematical skills and made scientific hypotheses and observations. Finally they learned together about where they live and how life works there. They were delighted to be part of their adults’ world. Through this study, they also learned that although everything is not perfect, they can do something to make their community better.
In a thoughtfully organized classroom, young children can use their newfound skills and interests to work and play together and learn about their world. In so doing, they gain knowledge, apply concepts, and develop skills that they will need throughout their educational experience. Most importantly, they do so with relish, because their classroom is an interesting place, one to which they and their teachers look forward to coming each day.
Making Connections

In this section we illustrate the connections between Developmental Interaction Approach (DIA) principles, the New Mexico Early Learning Guidelines, and the ongoing assessment of learning. We meet Juan and read about his work with older toddlers in a classroom serving 10 children.

Again, the principles are:

1. All educational work is grounded in an integrated understanding of human development and an acceptance that people learn in different ways and at different rates.
2. Children’s families are an essential part of their education and care experience.
3. Diversity is a resource for adults and children. Learning is social and children learn in interaction with each other and their environment.
4. Children engage intellectually and emotionally with materials, ideas, and people, as individuals and as a community.
5. Both adults and children ask and pursue answers to challenging and worthwhile questions.
6. Adults guide and facilitate learning and respect children as playful learners, experimenters, innovators, explorers, artists, and communicators.
7. Children and adults advocate for fairness and justice.
8. Adults become lifelong learners and inspire children to become lifelong learners.

Starting with Principle 1, Juan has studied child development theories and understands that the toddlers with whom he works learn in different ways and at different rates. Juan gained knowledge of each child and their family through home visits and other activities he and his team created to build relationships with families. He understands the role of the educator is to initiate and maintain relationships with families. Juan continuously implements Principle 2 thereby increasing his knowledge and understanding of who the children are in his care. As he thinks about his classroom community of learners, Juan studies the New Mexico Early Learning Guidelines (ELGs) which serve to help him generate a tentative list of the knowledge and skills the children in this age range will develop. He knows that planning involves individualizing for all the children in his care, which is Principle 3.

Next Juan makes curriculum decisions while studying children and comparing his observations with the ELG’s. In the following example, we see how Principles 4-7 are integrated. This entails Juan creating the social and physical environment of his classroom, planning investigations that emerge from the children and knowledge of the local community, and facilitating children’s development in all domains. We join Juan and the children midmorning:
The older toddlers are just finishing their morning snack. Juan remains at the table with a clipboard on his lap as he listens to Micah and Marisa, two "best friends." These young children are sharing pita bread and hummus while chatting about the new class pet, a rabbit. Juan knows that by listening carefully to the children's conversation, he will learn about Micah's and Marisa's communication capabilities. He documents the rich conversation on his clipboard. Later, during nap, Juan returns to his notes, reflecting on the observation. Using the ELG’s as his guide, he turns to the Communication section and notes that both children demonstrated “the capability to speak clearly enough to be understood by their friend.” Also, both were able to “express complex ideas” about building a home for the bunny. Juan also observed that Marisa consistently “initiated socially expected communication” by waiting until Micah was finished talking before she responded. Micah did not. He would start talking without taking turns in the conversation.

Turning to the ELG section on Beginning to Know about Ourselves and Others, Juan also documents that Micah and Marisa both showed great” enthusiasm for the company of others”. In the room while children are napping, Juan spends the next 10 minutes writing down his description of the observation and his conclusions about Micah's and Marisa's developing communication and social skills. These notes go into their individual documentation folders. Based on this documentation, Juan makes the following decisions: 1) assist Micah with conversational turn taking, and 2) begin a whole group curricular conversation with the idea of planning and building an outdoor home for the new class pet.

Juan comes to work the next day with books about rabbits from the local library. He also made arrangements for a neighborhood walk this week to visit the local lumberyard. The classroom is set up with today’s morning activities: water table, easel painting, blocks, and table toys. Children and families arrive. Slowly the morning good-bye routine ends and three children join their other teacher Kate, to prepare carrots and celery for snack as others play with the newly offered puzzles. Juan invites children to join him on the rug to read the book *Busy Bunnies*. Five join him, including best friends Micah and Marisa, while the remaining two children stay at the water table. The toddlers move with the text, hopping and munching as bunnies do. Although only five are on the rug with Juan, most of the children are listening from their activity area and moving to the text.

After reading and rereading the story, Juan intentionally draws the children’s attention to the illustrations of the homes in which rabbits live. One child returns to the puzzles and four stay with Juan as he poses questions about building a home for the new class pet, Daddy Bunny. Juan and these four toddlers go to the block area and begin building a home with blocks and boards. During block construction and conversation with the small
group, Juan pays particular attention to Micah. He intentionally and gently guides Micah to listen to his friends and take turns talking as they discuss plans as a small group. When finished, Daddy Bunny is put into his new home. Throughout the day there is much dialogue and wonderings as the children observe Daddy Bunny exploring his new home in the block area.

By the end of the day, however, the toddlers decide that Daddy Bunny might need an even bigger home. He was not hopping around. Caring for the new class pet and thinking about its perspective illustrates Principle 8. The next day the morning starts with teachers Juan and Kate and two parent volunteers walking to visit the lumberyard. Using a wagon, they return with wood and chicken wire to create a home for Bunny.

Juan used the Developmental Interaction Approach principles to guide his work with the whole group and individuals within the group. The New Mexico Early Learning Guidelines outlined the developmental expectations against which Juan compared his observations of children’s accomplishments. The Guidelines offered Juan a general idea of what to expect next and assisted him in identifying ways to support the child’s learning and development. We see Principle 9 in action as Juan engages in ongoing study of the children in his care while simultaneously creating a curriculum for playful learning for the toddlers.

Educators, such as Juan, who use the ELGs in this way, conduct systematic, on-going observational assessment that is criterion-based. They observe children in action, write factual, specific and descriptive observational notes and collect artifacts and work samples as evidence to support conclusions they draw when evaluating the child’s progress. Based on these data, they formulate goals and objectives that are meaningful for the child and family.

Meals, transitions and outdoor explorations, along with indoor play times, are opportunities for educators to integrate the ELGs. Children demonstrate their skills and capabilities in all that they do – not just in specified assessment tasks or content-related activities. They use language as they play with friends outdoors, converse at snack time and transition from activity to activity. They problem solve, focus attention and apply their skills as they build with blocks, put together puzzles, look at familiar books and take roles in dramatic play scenarios. They count and use concepts of quantity as they set the snack table, take attendance or determine how many children are waiting to wash their hands. They recognize alphabet letters as they see their names in print on helper charts and name cards and often attempt to write letters as they participate in meaningful play such as going grocery shopping or writing notes to each other. Throughout, educators and children engage in the learning process together.

A cycle of such observation, reflection, planning and implementation is the basis for all curricular planning for infants, toddlers, preschoolers and kindergartners. Adults implement
strategies and modify activities to better meet the needs of each child based on documented observations of each one’s successes and challenges. Some children will need additional supports to participate in daily curricular experiences. Together with families and specialists, the educator makes informed decisions based on the authentic assessment process, to plan instruction and interventions as warranted. When considering referral for special services, the guidelines can help educators identify the need for further assessment with norm-referenced screening tools or other assessment instruments.
Educators advocate for quality curriculum for all young children. They understand that good teaching takes time, resources and opportunities for ongoing reflection, dialogue and enjoyment of this important work (Carter & Curtis, 2009). Early care and education professionals who follow the Developmental Interaction Approach are aware of what they believe about children and how they learn; they have clear ideas about knowledge and how people acquire it. These professionals understand that all aspects of children’s development – their physical, social, emotional, linguistic, spiritual, and cognitive development – are related to each other and interact with children’s experiences, temperaments, and biology. They see that children’s learning occurs in the context of the family and community and regard family members as partners in the children’s educational experience. They have subject matter knowledge and a thirst for more knowledge and understanding. Through reading, observation, and practice, educators constantly increase what they themselves know about the world. They are committed to personal and professional growth. As responsible citizens who are deeply concerned about fairness and equity, adults who work with children look upon care and education as the route to children’s active participation in democratic processes (Nager & Shapiro, 2007).
References


