

**The Importance of High Quality Early Childhood Education:
The Role of Developmentally Appropriate Practice**

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Introduction

Attending a high quality early childhood education program has considerable benefits for young children. The most obvious benefit is that children who attend a high quality early childhood program have better academic performance later in primary and secondary school (Camilli, Vargas, Ryan, & Barnett, 2010; Gorey, 2001; Leak, Duncan, Li, Magnuson, Schindler, & Yoshikawa, 2010). Good early childhood education programs expose children to academic content that they need to be successful in school such as the English language, foundational mathematics concepts, and general knowledge.

Second, attending a high quality early childhood program also actually raises the intelligence of children (Camilli et al., 2010; Gorey, 2001). Intelligence can be defined as the knowledge, skills, and strategies necessary to be effective in society (Martinez, 2000). Intelligent people are more effective at solving the everyday problems in their profession, home, and community. Exposure to high quality instruction in early childhood builds a solid foundation on which children are able to develop their full intellectual potential.

A good early childhood education program therefore improves a child's cognitive development, which means mental capacity, and includes knowledge, thinking, and memory (Boyd & Bee, 2009). Furthermore, participation in a high quality early childhood program improves school readiness (Barnett & Hustedt, 2005; Chambers, Cheung, Slavin, Smith, & Laurenzano, 2010). School readiness refers to the skills that are necessary to effectively learn in school (Morrison, 2006). Some of these skills include the ability to listen and speak in the language of instruction, the ability to work alone on a task, self-control of impulses, and the interpersonal skills of getting along with peers and teachers.

The benefits of a high quality early childhood education are not just limited to educational and cognitive development, though. A good early childhood program can also positively influence the social functioning of young children well into their adolescent and

adult years. Children who attended nursery school are less likely to drop out of school, live in poverty, engage in criminal behavior (Gorey, 2001), and have a teenage pregnancy (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002). Furthermore, children who attend a high quality early childhood program are more likely to be employed (Gorey, 2001) and receive a tertiary education (Campbell et al., 2002).

However, the quality of early childhood education and care matters (Morrison, 2006). The National Association for the Education of Young Children even goes so far as to say that “poor-quality programs may place children’s development, even their health and safety, at risk” (1995, p. 2). For example, an early childhood education program with poor sanitary conditions exposes children to sickness. An unsafe school compound exposes children to harm and danger (Cost, Quality, & Outcomes Study Team, 1995).

Overcrowded early childhood programs with teachers who are not sensitive to the needs of young children denies them of the opportunity to develop warm, supportive relationships with adults (Cost, Quality, & Outcomes Study Team, 1995). Strong, positive relationships with adults are absolutely essential for young children to develop properly (Birch & Ladd, 1997; Boyd & Bee, 2009). Hartup (1992) states that the single best predictor of a successful adult is not academic achievement in school, but the quality of a child’s social skills. When young children are home with their parents, grandparents, siblings and cousins, they are able to develop nurturing relationships that are the foundation for future social, cognitive, and emotional development. However, sending young children to a classroom filled with thirty or more other young children robs them of valuable hours each day that could be spent developing positive relationships.

Finally, early childhood programs with poor curriculum and inappropriate instruction for young children can also hinder the physical and intellectual development of children (Cost, Quality, & Outcomes Study Team, 1995). Between the ages of 18 months and six

years, young children are developing their physical motor skills, including the movement skills of running, climbing stairs, skipping, handling small objects, and using a pencil (Boyd & Bee, 2009). These physical skills are necessary for later cognitive and social development. Young children learn physical motor skills the same way that they learn all skills – through practice. Therefore, young children need time to practice running, jumping, and manipulating small objects to develop their physical skills. A young child sitting still in a classroom for extended periods will not have sufficient time to practice her physical skills.

Young children also learn intellectual skills through observation and repeated practice. If the curriculum and instructional practices of an early childhood program are not appropriate for the young child, then he or she will lose the opportunity of developing foundational intellectual skills at home. For example, the size of a young child’s vocabulary is one of the best predictors of his future academic performance (Morgan, Farkas, Hillemeier, Hammer, & Maczuga, 2015). Children build their vocabulary, or words they understand and can use, through practice listening and speaking. The language in which a young child practices listening and speaking does not matter. A child who has strong language skills in her mother tongue will eventually perform better in school than a child who knows neither English nor her mother tongue well (Edele & Stanat, 2016). The more a child listens to others talk and practices speaking, the better his oral language skills. Therefore, a child at home engaging in one-on-one conversations with her family and friends, even in the local language, will typically have higher academic performance than a child in an overcrowded classroom who only hears a handful of English words repeated over and over.

There are two stories that illustrate this introductory point. First, I have a friend who recently enrolled her son in an early childhood program at the age of two and a half years. After a few months in school, he told his older sister that he wanted to play school. Playing the teacher, this child grabbed a switch and ran around the room shouting, “Be quiet! You –

be quiet o! Don't do that! I'll beat you! I'll kick you! Sit still, I'll beat you-o!" From the theme of his imaginary play, this child is learning three things in school: be quiet, sit still, and what not to do in school. Are these the skills that young children should be learning in early childhood programs? While self-control is a necessary skill to be developed in childhood, there are many other physical, cognitive, social, emotional, and spiritual skills that young children should be learning. I am afraid that most young children in Nigerian early childhood programs are learning little more than what *not* to do in school.

In contrast, I recently visited a friend on a school holiday. When I arrived, her young children were in the back of the compound with three other children attempting to build a swimming pool. Their swimming pool consisted of a hole about two feet square and six inches deep. The children were using sticks and spoons to dig out the hole, and had jerry cans, water bottles, and cans filled with water from the borehole on standby to fill their swimming pool with water. While digging their swimming pool, they separated the rocks and dirt into different piles. The children decided that they would start a business to sell the rocks and dirt, and had appointed a manager from among them to oversee the sales.

To a casual observer, these children might appear to be wasting their holiday on an activity that only dirtied their clothes. However, this playtime spent building a swimming pool was actually a very powerful learning opportunity. In addition to developing their creativity by exercising their imagination, they also practiced their social skills through their interactions with each other. The children practiced self-regulation skills as they set the goal of building a swimming pool, made plans to achieve the goal, and then persevered with their plans. They strengthened their oral language skills by giving each other directions and explanations about what they were doing. They learned the mathematics principles of measurement by filling different sized bottles and cans with water. The children learned science categorization principles when sorting rocks and dirt into separate piles. The children

explored principles of economics and business as they set up their imaginary building materials business. They also developed their fine motor skills by digging in the dirt with the spoons and sticks. In the four hours that they were engaged in this educational playtime, would these children have practiced as many skills in nursery school?

Thus far, I have made two seemingly contradictory points. The first point is that high quality early childhood programs have considerable benefits for young children academically, cognitively, and socially. But then I made the point that it can be better for young children to be at home with time to practice their developing physical, social, and cognitive skills than to be in a bad early childhood program. How can these two perspectives be reconciled? The answer is in the quality of the early childhood program. A good early childhood program can be of immense value to a young child. However, a bad early childhood program can harm the development of a child. As teachers, the stewards of children's development, we must have great concern for the well-being of the young lives placed under our care. As such, we have a responsibility to the children, their parents, society, and God to provide high quality educational opportunities and instruction.

Characteristics of High Quality Early Childhood Programs

Because the quality of an early childhood program determines whether the program will help or hurt the young child, it is important to consider the characteristics of high quality early childhood programs. First, by way of illustration, I will give two examples, one that illustrates characteristics of a good early childhood program and a second that illustrates bad characteristics of an early childhood program. I recently received a report from a student who was assigned to observe an early childhood classroom. He reported on a Nursery III classroom with 78 students and one teacher who was teaching double-digit addition. This classroom failed on two characteristics of a good early childhood program: first, the teacher to child ratio was extraordinarily high and second, double-digit addition is a concept that is

much too advanced for young children. To borrow the theme of this conference, but is yet to be introduced, double-digit addition is not developmentally appropriate for children in Nursery III.

The second classroom illustrates a good early childhood program. When the children arrived in the morning, the teacher warmly greeted each child and asked what they did the evening before. Then, the teacher directed the children into different activities. In one corner of the classroom, some children were writing in their exercise books independently. At another table, a teacher assistant read a storybook to a small group of children. Other children participated in dramatic play with stuffed animals at the back of the classroom. After some time, the teacher called all of the children to sit at their desks for the mathematics lesson. This classroom illustrates two characteristics of a good early childhood program: first, the teacher was nurturing warm, positive relationships with each child by greeting them and talking to them as they arrived in the morning. Second, multiple teaching methods were used that are developmentally appropriate for young children: small group instruction, independent work, and educational play. Each feature of a high quality early childhood programs will now be described separately.

The first characteristic of a good early childhood program is a low child to teacher ratio (Sagi, Koren-Karie, Gini, Ziv, & Joels, 2002). The Cost, Quality, & Outcomes Study Team (1995) found that the most important feature of a good early childhood program was the child to teacher ratio. The National Association for the Education of Young Children (2015) recommends that from two and a half years through five years, there should be no more than ten children per adult in the classroom. Children need the attention of adults to develop good social relationships, to engage in conversations, and to receive direction in their learning. In overcrowded classrooms with many young children and only one teacher, young children do not get this one-on-one attention that they need to develop properly. Additionally,

in an overcrowded classroom, the teacher spends most of her time correcting children who are misbehaving, which means the remaining children are not given the instruction that they need to learn. Therefore, high quality early childhood programs should either have a small number of children or many teaching assistants to give more attention to each child.

Good early childhood programs also foster positive relationships between children and adults (Committee on Early Childhood Pedagogy, 2000; National Association for the Education of Young Children, 2008). Warm, caring relationships are a fundamental need for both children and adults (Baumeister & Leary, 1995). Therefore, young children need to have good relationships with their teachers and peers as well as learn the social skills needed to develop and maintain loving relationships. To develop caring relationships with the children, teachers should listen to the children, be responsive to young children's needs, and engage in many one-to-one conversations with each child using pleasant, calm voices (Ostrosky & Jung, n.d.). Affectionately greeting children when they arrive in the morning can also help foster relationships. Teachers should create a courteous and cooperative classroom environment and show an interest in each child (Henniger, 2005). When young children feel valued in relationships, then they are more likely to thrive physically, have positive relationships with others, and succeed academically.

Third, good early childhood programs they have a curriculum that meets the developmental needs of children. Young children are learning and developing in the following areas: language, cognitive, social, emotional, and physical (National Association for the Education of Young Children, 2008) and I would add spiritual. Many early childhood programs in Nigeria have a very narrow view of early childhood education that includes only instruction in letters and numbers. Traditionally in Nigeria, the human being is viewed as holistic, integrating the physical, spiritual, social, emotional, and intellectual. There is a proverb that says, "If there is character, ugliness becomes beauty; if there is none, beauty

becomes ugliness.” This traditional perspective that views the child as a holistic being must be revived. High quality early childhood programs should focus on developing all parts of the child: intellectual, social, emotional, physical, spiritual, and linguistic (Committee on Early Childhood Pedagogy, 2000). The *National Early Childhood Curriculum for Ages 0-5 Years* (Nigerian Educational Research and Development Council, 2007) shares this perspective by including performance objectives for physical development, affective/psychosocial development, and cognitive development. The curriculum for children in early childhood programs must focus on holistic development and also must include content that is appropriate to the developmental level of young children.

Finally, good early childhood programs also use teaching methods that are developmentally appropriate for young children (National Association for the Education of Young Children, 2008), which will be treated in the next section.

Developmentally Appropriate Practice

When you are ill, the medical doctor prescribes medication. The most important principle of prescribing medication is that the medication must be perfectly matched to the specific illness. If you have malaria and the doctor prescribes medication for boils, then the medication will not help you recover because there is a mismatch between your illness and the medication. For the treatment to be effective, the doctor must prescribe medication that treats malaria.

The same principle applies in education: educational practices must be matched to the developmental level of the learner. If a teacher uses a teaching method that is not matched to the developmental level of the pupils, then learning will not occur. A professor of physics teaching five year old children the same way that he teaches his PhD seminars will be ineffective because the professor’s teaching methods are not appropriate for his learners. The

principle that educational practices must match the developmental level of the pupils is the essence of what experts call developmentally appropriate practice.

More formally, developmentally appropriate practice means that educational practices are rooted in research about how young children develop and learn (National Association for the Education of Young Children, 2009). The goal of developmentally appropriate practice is to promote optimal learning and development for children. At birth, God blessed each child with many gifts and abilities that are unique to that child. However, those gifts and abilities are like mustard seeds. The quality of harvest from the seed depends on how well the seed is cultivated by the farmer. In the same way, how well the child develops his or her gifts and abilities depends on the quality of education that the child receives. As teachers, we are the farmers that cultivate the gifts and abilities of the children entrusted to our care. Therefore, the goal of developmentally appropriate practice is to enable each child to fully develop his or her unique gifts and abilities by providing educational practices that are matched to the developmental level of the child.

Developmentally appropriate practice means that educational practices are matched to the developmental level of the children. Thus, teachers must understand the unique developmental characteristics of young children and use this understanding to guide their choices about the teaching methods they use as well as their disciplinary practices, assessment techniques, and implementation of the curriculum. The goal of developmentally appropriate practice in early childhood programs is to enable young children to thrive as they are learning and developing. Using developmentally appropriate practices is like building a seven story building. It is impossible to build the second story until the first story is complete. The foundations of the previous stories have to be solid first. In the same way, using developmentally appropriate practices enables young children to thrive at the level that they are currently at, which then builds a solid foundation for future growth and development.

Developmental Characteristics of Young Children

Many think that young children are miniature adults in that they think and behave like an adult, just immaturely and imperfectly. Careful observation of young children shows this simply is not true. For example, a young girl woke up from a dream and asked her sister, “Did you like our dream?” That girl was not yet able to differentiate between her own thoughts and the thoughts of her sister, which developmental experts call egocentrism (Boyd & Bee, 2009). When teaching and guiding young children, we must keep in mind that children think and behave quite differently than we do, and consider these developmental features of young children’s thinking when choosing educational practices. We need to create educational opportunities that match young children’s developmental level, which is the essence of developmentally appropriate practice.

God created young children very carefully and gave them just the right features that they need to help them grow and develop. As teachers and parents, we might find these features frustrating, but it is helpful to think about how these characteristics are useful for a child’s growth and development. The features of young children that can be frustrating for us are actually God’s careful design to expose children to everything they need to learn in order to develop into intelligent, thoughtful adults. I will highlight just a few developmental features of young children to illustrate the concept of developmentally appropriate practice.

Young children have incredible amounts of energy, like to explore new things, and have a short attention span (Carlsson-Paige, 2008). Children’s inability to sit still for extended periods of time is helpful to develop physical skills. Their energy and desire to explore enables them to be exposed to the many new things that they have to learn. Young children are sometimes called “universal novices.” This means that they know nothing (“novices”) about everything (“universal”). Children are easily distracted so that they can be exposed to everything they need to be successful adults.

According to developmentally appropriate practice, early childhood programs must take these developmental characteristics into account when planning the curriculum, teaching methods, and disciplinary practices. First, lessons should be kept short. If lessons are too long, what is taught at the end of the lesson will not be learned because the children's attention will have shifted to something else, or all of their energy will be spent on self-control to sit still. Between short lessons, children should be given the opportunity to move around and explore to practice their physical skills. Lessons must also be very interesting for young children in order to sustain their attention. The more interesting a lesson is, the longer the children will pay attention. Furthermore, multiple teaching strategies at the developmental level of young children should be used to sustain children's attention, including large group instruction, small group instruction, one-on-one instruction, and educational play.

A short attention span is part of children's nature, so children should not typically be punished for a short attention span. One goal of early childhood programs should be to help children focus their attention for longer periods of time because this is necessary to be successful as they grow older. However, this goal will not be accomplished by punishing children for not paying attention. This would be like punishing a child for not adding weight. Weight is added gradually by providing children with the right nutrients. Likewise, attention is developed gradually by nurturing children with an educational environment that increasingly stretches their attention through interesting and engaging educational activities.

Another feature of young children is that they can only focus on one part of a problem at a time (Boyd & Bee, 2009). I had a professor whose young child complained that her older sister got two pieces of meat when she only had one. Because that professor was a developmental psychologist, she knew that her young child could only focus on one part of this problem, which happened to be the number of pieces of meat. The child did not have the mental ability to also think about the amount of meat. Thus, to satisfy her child, my Professor

tore the child's one piece of meat into two. The young child was then happy because she had two pieces of meat just like her sister.

When implementing the curriculum and choosing teaching methods for young children, teachers must keep in mind that children can only think about one part of a problem. Consider the earlier example of a lesson on double-digit addition for nursery III children. Double-digit addition requires balancing two aspects of a number: the ones and the tens. Young children simply do not have the mental ability to do this. Instead, teachers should set learning objectives where children only have to consider one feature of a problem.

Young children also cannot think abstractly; instead, they need hands-on investigation to learn (Carlsson-Paige, 2008). This means that lecturing is not an appropriate teaching method for young children. Teachers must use concrete materials that children can explore using their own hands. For example, teaching one plus one through recitation will not help young children learn addition because reciting is too theoretical for young children. They will simply memorize "one plus one equals two" without learning what addition actually means. When they are then asked what two plus two equals, they will not be able to answer because they did not learn the concept of addition; they simply memorized. Instead, children must physically combine sets of objects to understand what one plus one means with their concrete thinking. Put one bottle cap on the table and count it, "one." Then put a second bottle cap on the table, and count it "one." Then explain "plus" as combining the two sets, and demonstrate "one plus one equals two." Children will learn more effectively if they are able to practice with their own hands, instead of observing the teacher's demonstration.

Young children are also frequently asking questions, particularly the *Why* question. Again, as universal novices, children know nothing about everything, so they have been designed to ask questions, sometimes to the point of irritation, so they can learn. If a child is asking a question, then he is interested in the answer, and will pay attention as you respond.

Teachers must make every effort to thoughtfully answer children's questions with responses that young children can understand.

Conclusion

With the rising popularity of early childhood programs in Nigeria generally and Plateau State in particular, it is imperative that educationalists have a thorough understanding of key principles in early childhood care and development. To ensure that the young children in Plateau state are able to fully develop their gifts and abilities, educational stakeholders must make every effort to ensure that all Early Childhood Care and Development programs meet the standards of high quality programs through developmentally appropriate practices.

A popular phrase in education right now is "reflective teaching." This means that teachers evaluate their teaching practices by considering how effective their teaching was and whether and how their teaching practices could be improved in the future (Clarke, 2007). I will conclude with a few questions to help you reflect in your teaching of young children.

- What skills are you teaching in your classroom? Categorize these skills into the cognitive, physical, emotional, social, and spiritual domains. Are you teaching skills in all domains? How can you restructure your classroom to include objectives that develop all domains to ensure your pupils' holistic development?
- How are you teaching these skills? Are your teaching practices matched to the developmental level of your pupils?
- Are you developing positive relationships with your pupils? What can you do to improve the quality of relationships in your classroom?
- What changes do you need to make in your educational practices so that your teaching practices match the developmental level of your pupils?

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