Play in the Kindergarten Curriculum
Gayle Mindes
KINDERGARTEN: WHAT SHOULD BE

A Position Paper
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    CAEYC Commission on Child Development and Elementary
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Kindergarten: What Should Be

On August 31, 1984, the Chicago Association for the Education of Young Children adopted Kindergarten: What Should Be as an official position regarding the education of 5-year-olds. Since that time the papers have served as discussion vehicles for NAEYC and CAEYC conferences and have been distributed to parents and teachers for discussion with school boards. This group of papers grew from the concern of early childhood educators in Chicago about the academic demands that are being placed on kindergarteners. In an effort to combat this trend, the public policy subcommittee offers this series of papers based on a review of literature, interviews of experts, and extensive discussion with early childhood educators across the country. The papers apply knowledge of curriculum, contemporary society, and of young children in a manner designed to highlight those procedures and practices which best support the interests of children. Most of these papers have reference lists or bibliographies which are rich resources for further reading.

Introduction

Currently many educational practices in kindergarten are not justified by developmental research. There is a major gap between the way kindergarten programs are conducted and the way early childhood educators and kindergarten teachers know they should be conducted. Programs have been influenced by those who wish to direct academic curricula toward the young child as fast as possible. Much of this kind of planning is a response to a perceived failure of our schools to meet the demand for universal education. Moving academic content to earlier years has been based on the notion that starting earlier will reduce the chance of failure in later years. Such practice is not based on child development principles. Furthermore, it can set the stage for the early school of young children forced to tackle academic demands that are delivered in an inappropriate manner. While young children are curious and capable learners, they lack the skills required for extensive pencil and paper activity. In addition, the young learner profits most from curricula that permits active involvement with concepts and materials so that he/she may tie new learning to previous experiences. The young child’s cognitive approach is different than adult logic, so that curricula must start with the child and his/her experience rather than adult defined and simplified academic subject matter.

We must remember that higher grade content expectations are inappropriate for young children. As early childhood educators we have only recently begun to fulfill our responsibility for speaking out on

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1The papers were originally prepared during the Fall, 1983. They were first shared at the NAEYC Conference in Atlanta.
policy issues. The result has been an overcontrol of curricula by those uninformed about early child development and a preponderance of influence on content issues rather than developmental issues. One affect of this imbalance of control has been too much reliance on tests which are used to judge academic progress. Such tests do not judge the ability of the learner as an independent thinker, nor as a responsible citizen. Other measures are needed which show developmental progress in cognitive, social/emotional, and physical domains.

As early childhood educators we have a responsibility to document and research the most appropriate practices for young children, as sometimes these best practices are based on theories for which we have not accumulated empirical evidence. We must rely on the support that we have from kindergarten perspective -- frequently they do so in the face of great opposition. In 1986 the Commission members began a documentary study of such practices. The preliminary interview and observational results were presented at the 1986 NAECYC Conference in Washington, D.C. The work continues so that we may share real life examples of best practices in action. These exemplary programs are few and far between, so we remain concerned and focus your attention through these papers about what Kindergarten curriculum should be.

Kindergarten should no longer be the elementary school's stepchild. Kindergarten should no longer be the place where watered-down elementary school content is shoved into 5-year-olds. Kindergarten should be the place where success in school is ensured.
As Kindergartens Develop

Kindergartens have been a part of American education for well over a century. The past two decades, however, have seen profound changes; the most apparent being the growth of kindergarten programs throughout the country and their inclusion in the public schools. Fewer than half of the 5 year-olds were enrolled in kindergarten in 1965 compared to almost 85% in 1980. During the 1970's, kindergarten became a part of public education in many states as state budget surpluses and new federal revenue sharing provided the money needed to support them. In addition, special programs such as Head Start created by the federal government for young children led to greater public acceptance of early childhood education.

Other changes are also evident. The demands for teaching academics or preacademic content in kindergarten seem to have heightened in recent years. Along with this increased demand is an increased use of standardized achievement tests in the kindergarten, sometimes coupled with prescriptive programs of instruction designed to match the content of these tests. The pressure for educators to become accountable to the public for children's learning has mounted in recent years. Meanwhile, this accountability has become more narrowly defined in terms of academic success as reflected in test scores. There seems to be less concern for tailoring particular kindergarten programs to the needs and interest of specific groups of children and more concern for relating the kindergarten program to that of the total elementary school. When kindergartens enrolled few 5 year-olds, primary teachers could not assume that all the first graders would have a common experience. Being free of learning expectations allowed kindergarten teachers to be free of program constraints.

Unfortunately, early childhood educators appear to have little impact on recent policies. There are a number of reasons for this. For one, early childhood educators do not all agree about the value of various programs and practices. In addition, the available research does not provide clear support for any position; it is even equivocal on the benefits of early childhood education. Policy makers have been able to use it selectively to support those positions they already hold.

Many children are attending kindergarten today, and many people are beginning to take kindergarten education seriously. We need to go beyond simply providing educational programs for young children. We must become more concerned with the kinds of programs that young children are offered. Kindergarten programs must be broadly developmental rather than narrowly designed to achieve limited, objectively measured outcomes. These programs must be more concerned with developmental continuity than with academic continuity. Kindergarten teachers must be specialists in early education with an understanding of developmental principles. They should not be considered interchangeable units of an elementary school faculty.
As concerned early childhood educators, we must attempt to influence the direction that kindergartens take in the future. We need to know more about the factors that shape educational policy and that determine what kindergartens will be. These factors include economic and social conditions at the national, state, and local level as well as the values held within our communities regarding young children and their education. We need to communicate with other teachers and administrators within the public school system. We also need to communicate with school board members, legislators, parents, and members of the community at large. We need to make use of our knowledge as we become involved along with others in building the best possible educational institutions and programs for all young children.

Suggested Further Reading


Developmental Characteristics of the Five Year-Old

The average 5 year-old arrives at his or her kindergarten classroom weighing approximately 41 pounds and averaging 43 inches in height. Individual differences in growth rates give a normal range for weight of 28 to 53 pounds and for height of 39 to 46 inches. Boys typically are slightly heavier and taller than girls, having more muscle and bone development, while girls tend to have more fat tissue than the boys. The chubby, top-heavy, infantile look of the toddler has been replaced by a slender, better-proportioned build.

Five year-olds are physically active, capable of skipping, hopping, and jumping -- some are even ready to swim and skate! Due to their somewhat advanced muscular development, five year-old boys are slightly stronger than girls and are better at ball-throwing, jumping and climbing up and down ladders and steps. Girls tend to do better in hopping, skipping and galloping. Girls are also further advanced in their small motor development; their manual dexterity permits them to excel at such tasks as bead stringing, cutting, pasting, and coloring. Most 5 year-olds can copy a square and show a preference for using one hand more than the other. One child in 10 may be left-handed; this child is more apt to be a boy.

By five, most children have achieved a sense of gender identity and have worked through issues of trust, autonomy, and initiative. Having achieved separation and individuation as well as object constancy, they can tolerate short separations from home and family, safe in the knowledge that mom and home will not be gone forever. Eager to learn, pleased with their emerging sense of competency, 5 year-olds are socially curious about the world outside of home.

They enjoy their independence. They are able to wash, dress, feed, and toilet themselves. They know their own names and learn addresses and telephone numbers without much difficulty. They especially enjoy the company of their peers, dramatic play (wherein they can take on a variety of roles), as well as playing some simple, organized games. Five year-olds are capable of carrying a play theme over from one day to the next. The content of play reflects their cognitive as well as emotional understanding of their world. Play is frequently used by 5 year-olds to attempt mastery of highly meaningful events in their lives.

The vocabulary of the average kindergarteners ranges from 1,500 to 2,000 words. Between the ages of 5 and 6 this vocabulary will increase by at least another 500 words. Their sentences will be from 6 to 8 words long. The speech of the 5 year-old contains little, if any, infantile articulation and is fairly grammatical. Their language is becoming less egocentric and more socialized, and they are able to relate the plot of a simple story.

Five year-olds are quite concrete in their thinking. Their knowledge
is based primarily on perceptions. They are just beginning to know left from right and are able to take another's point of view. Five year-olds are able to use symbols to represent objects, places, future events. They know about tomorrow and can also imagine events going on elsewhere. Their mental processes are both active and reflective. They tend to have a difficult time shifting in their thinking and handling more than one aspect of an object. Thus, in their attempts to categorize objects, they tend to sort by one dimension at a time.

Kindergarteners enjoy solving problems and finishing a task. They are just beginning to develop skills in distinguishing fact from fiction and frequently use questions to sort out their understanding of reality.

There is a new representational quality to their drawings and paintings as well as their clay and block productions. They most often will have an idea in mind before they begin, and a new, self-critical ability may interfere with their earlier, more uncritical creativity.

Five year-olds are generally eager to go to the "big school". They look for challenges and increased competency. The question is -- is the big school ready for them?

Suggested Further Reading


The Teacher-Parent Role in Kindergarten: Building Effective Home-School Relationships

The kindergarten, as it was conceived by Freidrich Froebel more than 125 years ago was not only an educational innovation, but a social invention as well. He saw it as an integral part of the educational experience. He saw kindergarten as providing a critical link between the family (the child’s first educator) and the school.

As our society has become more complex, the role of the family in the care and education of children has become diluted and difficult to define. Many of today’s parents are faced with overwhelming demands arising from situations outside their families; (employment, increased mobility, decrease in extended family system as a support, and economic hardships). They have naturally looked to the schools to perform more of the necessary functions of child rearing and education.

The role of public and private education has been similarly impacted, absorbing many of the traditional roles no longer performed by the family such as vocational training, special education, child care, after-school care, and recreation. These new tasks have been added to our schools’ primary role of educating children to become successful, literate citizens. Schools are being asked to do more. However, at the same time they are experiencing a strong tide of public criticism of their inability to educate as documented by studies such as A Nation at Risk (1983). Because public confidence in education is eroding, school administrators and educators are hesitant to take on any new roles that further dilute their goals.

Nonetheless, kindergarten teachers must once again assert the belief that the child will make a successful transition from the home to the school when teachers and parents work together to recognize each other’s contributions to, involvement with, and knowledge of the child. The teacher’s role then becomes that of creating ways to share with parents his/her professional knowledge and expertise in such theoretical areas as child development, learning theory, and instructional methodology. In this way, parents and teachers can work together to make informed decisions regarding the child’s educational development. Curricular and developmental concerns about the child can then be shared in a relationship of mutual support, cooperation, and respect.

The current tide of criticism and doubt is derived from a generalized fear that today’s schools have been unresponsive to societal change. The kindergarten’s redefinition may well provide an example to the elementary and secondary schools of successful response to demand for change.

Kindergarten teachers may work to bring about this redefinition by:

1. Supporting and empowering the parents of their students to value learning and appropriate educational activities in the home as well as kindergarten. In reestablishing positive home-school relations,
well-prepared kindergarten teachers may earn the respect they deserve as the experts in early learning and development.

2. Recognizing and working to modify the societal forces which currently keep parents from being more appropriately involved in the child’s care and education. By joining the efforts of the community-based organizations, such as child care centers, nursery schools, and family services, they may assist parents in their child’s successful navigation of critical social/emotional periods so important to uninterrupted educational progress in school. They may also search for ways to bring about state and national policies which provide more time for parents to engage in child rearing.

3. Refining and articulating the science and art of education. As kindergarten teachers develop their expertise in home-school relations, they may need to find ways to inform their peers in education as well as the general public of their well-researched educational foundations and practices.

Through the accomplishment of these difficult but not impossible tasks, each professional kindergarten educator may lead the way for the nation’s schools to become more highly valued and respected. From Froebel’s example, kindergarten teachers may establish ways to link the child’s family life with challenges of a new age.

Suggested Further Reading


Assessing Educational Programs for Young Children

Public school education has traditionally emphasized the teaching of skills and information and has evaluated its success by achievement test results. With increasing national concern over the failure of schools to successfully teach academic skills, the response of many educators has been to begin earlier, at the kindergarten and even the preschool levels, and to concentrate more heavily on predetermined curricula, imposed by the teacher, with the child's right answer the measure of success. Play is typically regarded as tangential to learning. It is frivolity, a precursor to meaningful work or a reward for it.

There is a heavy emphasis in kindergarten curriculum guides on direct instruction, including lists of specific skills that the child is expected to master, for example, rote counting from 1 to 10, and identifying written numbers and alphabet letters. When such are the stated goals of a kindergarten curriculum, it follows that the assessment of the child's progress will be correspondingly narrow in scope. This narrowness is apparent in any review of the myriad of achievement tests and criterion-referenced tests currently used to assess the progress of young children or to predict future academic problems.

Even for children who do succeed in learning these kind of academic skills, this seems too narrow an educational goal for an increasingly complex society. But even more disheartening is the fact that for too many children, even this narrow success has been elusive. Moreover, frequent wrong answers lessen children's confidence in their own ability to figure things out and diminish their motivation to learn. By the end of kindergarten, many students have become passive or disinterested in learning, or may have begun to behave in socially unacceptable ways, at least in part because they do not find the curriculum to be personally meaningful. Grade retention in kindergarten is becoming more prevalent-blatant evidence to the child and his/her family of failure.

A major task facing educators is that of integrating theoretical insights into educational programs. For many who are versed in child development, the goals of a good kindergarten program should include the fostering of thinking, problem-solving and curiosity. For young children, learning needs to be active, spontaneous, and frequently child-initiated. Kamii and Devries (1977) suggest that young children should be encouraged to come up with interesting ideas, problems and questions, and to put things into relationships as they notice similarities and differences. They should be encouraged to use materials in many different ways and to predict and verify the results of their actions. Reading, writing, and arithmetic are easily incorporated into daily activities and become one component of the curriculum but not its organizer.

In a program of this kind, the peripheral nature of achievement tests as the sole measure of the success of the program is obvious. But how can one evaluate such programs? And how can one assess young children so as to measure what benefits they have derived from the program? This is a
very difficult task. Evaluation instruments in current use are more suited for product-oriented as opposed to process-oriented educational programs.

There have been a few efforts at broader-based evaluations. The reader is referred to Duckworth's method for evaluating an innovative science program in Africa and to Golub and Kolen's evaluation of a Piagetian kindergarten program based on Duckworth's method. In these evaluations, a large variety of materials were provided to groups of children from experimental and comparison classes. Directions to the children were as follows: "On the tables in this room are many things. You may do whatever you wish with these things. You do not have to sit down. You may walk from place to place. You may talk with your friends and you may work together." (Duckworth, 1971).

In the Golub and Kolen study, the children were observed in this situation for 20 minutes. The adults initiated no conversation. Three main variables were measured: the complexity of the children's activities; the levels of social interaction; and child-initiated interactions with the adults. The findings were viewed as an encouraging measure of success in meeting the goals of their program: that children develop initiative and independence; and that they actively explore their ideas and coordinate different points of view.

Most early childhood educators either advocate adopting a long-term perspective to evaluation, or they righteously spurn evaluation altogether. The problems associated with long-term evaluations are obvious; it is difficult to attribute the differences in outcome many years later to previous participation in the program in question. On the other hand, to spurn evaluation altogether is not constructive. Today, education is being plagued from all sides, and there are strident demands from society for accountability. Assessing children's progress and the success of educational programs with narrowly-based, content-oriented tests is unsatisfactory to many early childhood educators as well as to many educators involved with older children. There needs to be more effort and research to develop methods of evaluating kindergarten programs which are consistent with child development and educational theory. Otherwise, the evaluation instruments available will continue to determine the content of curriculum.
References


Suggested Further Reading


The kindergarten teacher must provide opportunities for the child to perform actions on objects (logico-mathematical experiences) and to practice in a meaningful context, the mathematical conventions of our particular culture (social arbitrary knowledge).

Piagetian research and theory indicate that the source of logico-mathematical knowledge is in the child. It is constructed by coordinating relationships that have their origins in the mental actions of the child (Kamii & DeVries, 1980). Mathematical and number concepts are learned through the active involvement of children with the objects, materials, and people in their world (Benham, Hofticka, Payne, & Yeolis, 1981; Kamii, 1982). Children need materials through which they can begin to make relationships. They need opportunities to make predictions and comparisons. Children are most encouraged to think about numbers when the need arises naturally from some activity or experience which has some meaning to them (Lovell, 1971). Familiar activities in the early childhood education curriculum can be modified to enable children to become more accurate observers and to draw more correct conclusions from their activities (Benham, et al, 1981). These activities include block building, woodworking, preparing, dividing and distributing materials, measuring, weighing, planting, pouring, and filling. It is through such activities that children develop concepts of conservation and seriation (Seefeldt, 1980), and of number, measure, and numerical operations.

In addition to the logico-mathematical knowledge about quantification which children must construct, there is also mathematical knowledge specific to our language and culture which children must learn. This knowledge includes our number words, symbols for numbers, and the specific way in which we count objects. Piaget termed such knowledge "social arbitrary" knowledge because it varies from culture to culture. Much of the mathematics training in kindergarten consists of such learning, and this learning is usually done quite formally and abstractly, through worksheets and workbooks (Nall, 1982), and teacher-directed lessons. Language can help the teacher direct the children's attention and thinking within particular settings, and can remind children of other related situations that are not present, but the teacher cannot transmit mathematical knowledge by language. Mathematical knowledge can more appropriately be learned through activities adaptable to the levels of a particular child (Lorton, 1972) or through group games and activities (Baratta-Lorton, 1976).

Social arbitrary knowledge about mathematics is necessary for children to learn arithmetic and mathematics, but it should not be confused with logico-mathematical knowledge. Teachers must realize that the ability to count accurately does not mean that children understand quantification (Kamii, 1982). Counting is helpful if it has some function for the children, such as counting the number of cookies needed for snack or the number of buttons needed for a construction.
Counting does not produce logico-mathematical knowledge, but there is increasing evidence that there is a long, complex, developmental relationship between children's counting and their development of concepts of cardinal numbers (Fuson & Hall, 1983; Penrose, 1980). Children become able to establish relationships among words in the number word sequence and use these relationships in thinking about numerical situations in the world (Fuson, Richards & Briars, 1982; Secada, Fuson & Hall, 1983).

Children also need activities which enable them to correct themselves and each other. This may be accomplished through a variety of games which enable children to construct their own knowledge of numbers and to observe the numerical concepts of others (Kamii & DeVries, 1980; Kamii, 1979; 1982; Timberlake, 1983).

While we have stressed that children construct their own knowledge, teachers have an important role to play in this process. Kindergarten teachers who recognize children as active, not passive learners, who emphasize how children arrive at their answers rather than whether they find the right answers, will provide appropriate materials, experience, and guidance which will permit children to explore and to learn the mathematical knowledge of our culture and of our world.

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Social Studies Curriculum in the Kindergarten

Social studies in kindergarten provide experiences to help children learn about themselves, others, and their world. The following objectives provide general guidelines for these studies: (a) to help children gain self-confidence, self-discipline and become increasingly self-directive and purposeful; (b) to help children learn to live with others in cooperative, creative, and understanding ways; and (c) to help children learn about their world--family, school, and community.

These objectives can be achieved in a variety of ways. Spontaneous play allows children to learn about themselves and others, to learn how to get along with others, and to learn about reality. Guided play (adding a new piece of equipment, making a suggestion, asking the right question) helps children learn to accept an adult's guidance and to extend the play concept (Sponseller, 1974). Excursions within the school and community (public library, fire station, hospital, post office, grocery store) enable children to learn about adult roles, responsibilities, and behavior. Resource people (school officials, nurse, doctor, dentist, fireman) who are invited into the classroom add to the children's understanding of career roles and responsibilities (Weikert, 1971). Informal sharing of experiences with parents, grandparents, and siblings who visit the classroom add to the children's awareness of their own identity and culture (Lay & Dopyera, 1977). By extending children's experiences vicariously, stories and poetry further enhance understanding knowledge.

Social studies subject matter encompasses everything that has happened and is happening in the child's world. To paraphrase Comenius, economics for the young child is "Do I have enough money for an ice-cream cone?"; history is "What did I do last week?"; sociology is "Is he like me even though our skin colors are different?"; geography is "Where is the principal's office?"; and political science is "Why do I have to do what you tell me to do?" (Comenius, 1956). This is not to say that a formally planned and implemented study of these subjects is not appropriate (Vygotsky, 1962). It is -- providing the materials, tasks, and experiences are developmentally appropriate, relevant, and unabstract (Robison & Spodek, 1965). Children are not vessels to be filled with gallons of facts. It is actual, real-life experiences which prepare young children to deal with increasingly abstract concepts. Through careful organizing and planning, the knowledgeable teacher who is sensitive to their needs and interests can help children integrate their knowledge and expand their concepts about themselves and their world (Robison & Spodek, 1965).
References


Teaching science in the kindergarten should be based on the process of experiencing, questioning, and problem solving rather than on learning facts and information. Recent literature in early childhood science, based on Piaget's theory of cognitive development, stresses the experiencing process.

Children naturally manipulate materials from a very early age. By playing with the material, they make discoveries that provide a base for conceptual development which they will build upon for the rest of their lives (McIntyre, 1977). Children explore, manipulate, focus, investigate, classify, experiment, practice, and repeat procedures as they handle materials. All of these are part of the scientific process. In the kindergarten, objects can be provided to expand children's scientific concepts -- for example, playing with things that are light and heavy, rough and smooth, resilient and inflexible, increases children's concepts about the properties of matter.

Developing a kindergarten science curriculum involves providing appropriate materials and an environment in which children can interact with them. It means offering children an opportunity to investigate the physical world, ask questions, and seek information through further experiences (Holt, 1977).

Many early childhood educators have built their methods of teaching science on Piagetian theory. They see the necessity for children to act on materials, to abstract information, and to construct their own knowledge. The teacher does not instruct by giving a lot of information verbally, nor does she require children to follow a specific action or experiment. When a child predicts that something will happen the teacher's response should be: "Let's find out" (Kamii, 1972, p. 117). Kamii and others (e.g. Tipps, 1982) believe that the process of finding out is more important than having the correct answer.

Because young children learn by manipulating toys and other materials, they must have a rich environment to explore (Smith, 1981). Teaching cause and effect relationships that cannot be readily observed, but must be inferred logically for temporal relations, should be deferred to the upper grades. Such concepts as the evaporation of water and the rotation of the earth on its axis are processes that can be observed only indirectly. These abstractions cannot be understood by the preoperational child (Smith, 1981).

Steps in the teaching of science are given by Smith (1981) and Benham, Hoftika, Payne, and Yeolis (1981). The teacher sets the stage for children to manipulate materials. Observations of this experience and the results are articulated and recorded, noting similarities and differences in objects and actions. The results of these processes are communicated to others. The learning is grounded in physical action on the objects and the child's reasoning.
Young children, including kindergarten children, need a rich physical environment, and time to manipulate or play with the materials provided to develop concepts and mental processes. This helps to conceptualize actions and develop flexible thinking.

The teacher facilitates the process by allowing the child to discover the physical attributes for him or herself and to organize his or her perceptions to create concepts from that which is observable. The provision of materials needs to be planned carefully.

The kindergarten child cannot yet grasp abstract concepts nor complete all steps of the scientific process. The child in this stage of development can develop the process skills of observation, prediction, classification, and communication (Tipps, 1982) and develop broader concepts of the world around him.

References


Suggested Further Reading


Reading and Writing in Kindergarten

Rather than being taught from programs designed for first graders, kindergarteners should be given developmentally-appropriate opportunities to read and to write. A growing body of research (Clay, 1982; Ferreiro & Teberosky, 1982; Sulzby, 1983, 1985b, 1986; Teale & Sulzby, 1986) indicates (a) that young children's reading and writing concepts and behaviors differ from conventional, adult concepts and behavior; and (b) that they develop into adult, conventional reading and writing.

Developmentally-appropriate tasks for kindergarten children include reading and writing that people use for real-life purposes (in contrast with practicing isolated skills). Children should have storybooks read and reread to them and have opportunities to read these books to themselves and to others in whatever way the child currently reads. For example, when children are asked to read a storybook, researchers (e.g. Clay, 1979, 1982; Holdaway, 1979; Schickedanz, 1981; Sulzby, 1981, 1985a) have found that children's speech gradually approximates the wording and intonation of book language even while they are still looking at the book as if the pictures are what is read.

In addition, children should be asked to write in whatever way they are currently writing. Researchers (e.g. Clay, 1975; Ferreiro & Teberosky, 1982; Gentry & Henderson, 1978; Graves, 1982; and Sulzby, 1981, 1985b, 1986) have found that children will respond to requests to write by using various writing systems such as drawing, scribbling, using strings of letters (which may appear to be random or from a well-known sequence like the alphabet or the child’s name), using phonetically-based invented spelling, or conventional spelling. While research has not established that there is one developmental sequence in the use of the writing systems, there are patterns of development. Studies have shown that children use emergent writing systems to practice both writing and reading one's own writing (Graves, 1982; Sulzby, 1981, 1985b) and that these systems develop into conventional writing.

Other reading and writing tasks that are developmentally appropriate for kindergarten children can be drawn from the research, from teachers' experiences, and from observing children (Goodman, 1980). Gundlach (1982) outlined real-life purposes that children use writing for, and Bissex (1980) recounted how one young child made use of these in becoming a proficient reader and writer. These sources indicate that children should also write in these genres. Other instructional techniques like dictation can be used if the teacher carefully observes the child's behaviors during dictation (see Harste, Woodward & Burke, 1984; King & Rentel, 1981; Sulzby, 1982, 1985b, 1986).

Literacy skills or mechanics should be considered subordinate to engaging children in reading and writing. Teachers should be reassured that the skills, too, are developmental. Handwriting as letter formation has been a classroom stumbling block because teachers have been taught to
wait until children know their letters and can form them well before introducing composition tasks. Now researchers are reporting that children develop handwriting and phonics skills while engaging in composition and using emergent writing systems. Findings of previous child development research (e.g. Ilg & Ames, 1950; Hildreth, 1936; Luria, English translation, 1983; and Vygotsky, English translation, 1978) are being rediscovered; this research indicates that children abstract features of writing rather than imitate the surface features of writing. Similar current research in spelling (Beers & Henderson, 1977; Read, 1975) and handwriting (Simner, 1981) replicates parts of this early research and further documents children's developmental approach to the mechanics of writing. As with other areas of development, advances in one area can temporarily be seen while other areas appear to regress (Cox & Sulzby, 1984; Graves, 1982).

The picture becomes more complicated, however, as there is also evidence of differences in reading and writing development between children of middle and lower socioeconomic standing (Ferreiro & Teberosky, 1982; Harste, et al, 1984). Teachers can use simple, real-life reading and writing tasks as interventions (Heath, 1982; McCormick & Mason, 1986). The curriculum for kindergarteners needs to provide similar experiences both to children who have had few opportunities to use pencils, crayons, scissors, and books and to children who are already reading and writing conventionally (Durking, 1966), without stigmatizing any child, parent, or caretaker.

Current research treats writing and reading as parts of written language. Furthermore, it treats both oral and written language as part of the child's communicative competence. Research in writing and reading (Cook-Gumperz & Gumperz, 1981); King & Rentel, 1981; Scollon & Scollon, 1981; Sulzby, 1982, 1985a) suggests that teachers need to observe the child's oral language for signs of knowledge of written language. Thus kindergarten activities such as rug time or sharing time allow teachers to observe the child's ability to converse appropriately, to narrate an oral monologue (independently or with help), and to listen to and to draw inferences from other children's speech. Drama, songs, and games offer opportunities to judge children's speech in light of oral written language development. Finally, although not explicitly addressed by current research, the theoretical basis for the current research indicates that children should read and write about topics important to children and these topics should be incorporated into the rest of the kindergarten curriculum.
References


Microcomputers in the Lives of Young Children

The use of microcomputers as a teaching tool is rapidly increasing in classrooms as well as in homes. Microcomputers provide computer assisted instruction (CAT) in four different categories: drill and practice, tutorial, simulation, and logic or creative programs. With the apparent widespread success of this new teaching tool, it is not surprising that its application would be tried with younger children.

Of the four ways of using microcomputers mentioned above, the young elementary student utilizes primarily drill and practice and tutorial. Computer software providing drill and practice gives the student an opportunity to improve skills already learned such as math or vocabulary building. Tutorial software presents a sequence of information often with questions about the content.

For the young child however, other more imaginative techniques are being suggested for their use of microcomputers. In his book Mindstorms, Seymour Papert suggests that young children be given opportunities to use computers in an active rather than passive way that is, the user and computer work together to solve personally interesting problems. He recommends that children become controllers of the machine rather than being controlled by it. This stimulates their thinking, gives them a sense of power and control, and enhances their self-esteem.

Several precautions should be noted in selecting software for young children. Young children may sometimes view the computer as a being like their teddy bear or a real person, thus the programs should act as you would want a person to act with a child: gentle, patient, and nonviolent. Also, the action on the screen should not seem to carry on by itself, but should always remain under the child's control. If not, the child may have difficulty later making the distinction between the computer and living beings.

Several companies are focusing on this new computer market with the idea of developing programs and hardware that will meet the special needs of this young clientele. The best programs for young children encourage self-exploration, problem solving, and give children opportunities to work together to solve problems and reach goals.

Educators have some concerns about young children and computers. Computers cannot be used to jump developmental stages. computers should not be used at the expense of more important aspects of a child's development. The two-dimensional screen of the computer cannot give children the hands-on experiences they need with their environment.

While the debate about computers and young children continues, further studies are being done on what activities are best for young children and how their capabilities can best be tapped. The advancement of microcomputer technology in the area of voice activation and control
should further increase its potential as an educational tool for young children.

Computers, like television and space travel, are part of the environment of the next generation. It is our responsibility as educators concerned about preparing that generation for their future to utilize this new technology with careful consideration as to its appropriate additional to an activity-centered learning environment.
Suggested Further Reading


Electronic Learning NJ: Scholastic Bimonthly.


Play in the Kindergarten Curriculum

Through play, children grow . . .

Most of today's 5 year-old kindergarteners have spent many hours in early childhood programs. Play is an integral part of most of these programs. Thus one might question whether or not play can still serve a useful function in the kindergarten curriculum. Aren't there more important skills, or processes that should be emphasized? A child development perspective supports the inclusion of play in the kindergarten curriculum. Through play the kindergartner can interpret his world and practice new skills in a voluntary manner. In the play setting the young child can develop an increasing capacity to comprehend the academic world of paper, books, and the abstract concepts of the elementary school. New ideas, procedures, and materials introduced into the young world through the kindergarten program can be interpreted and absorbed through play. The play period also offers an opportunity for release from the frustration of increasing academic demands, group life structure, and the teachers' more authoritative role.

Playing involves children's active participation in a joyful, purposeful pursuit. Play can be social, as in playing house or "He-Man" with friends. In such play the child has an opportunity to deal with harmony and conflict and to contribute individually toward the welfare of the group while accepting responsibilities, sharing, and taking turns. In this kind of play the 5 year-old assumes a role and interprets the reality of adult life from his or her perspective. Such play is frequently exaggerated, offering the chance for the child to practice ways to deal with his world. Excesses of emotion, plastic boundaries between reality or fantasy, and swift changes of role or perspective, permit children opportunities for trying alternative approaches to problem solution.

Play activities are loaded with cognitive content. As children manipulate physical materials, or concepts, they learn more about the properties of objects, and the relationships among them. By solving problems in play situations young children more fully integrate into their thinking, those concepts taught by parents and teachers. This kind of learning frequently occurs with blocks, riddles, and games that children invent or pursue in an organized fashion.

Of course, play is frequently physical, helping children develop fine and gross motor skills. Play with jump rope, climbers, or balls offers opportunities for children to increase their proficiency in motor control. Drawing and painting allow children not only the chance to manipulate crayons, brushes, pencils, and markers of all sizes while becoming more proficient in handwriting, but also offer children the chance to share their views of life with teachers and parents. For example, picturing the John Hancock Building with Martian ears contains both real and imagined experiences that yield a playful view of the world from the child's perspective. It offers the teacher a view of the child's sense of humor.
and creativity while also demonstrating the child's proficiency in fine motor activities and his or her knowledge of the surrounding world.

Emotional development is nurtured through play activity when children play with risky, confusing, mysterious, frightening or forbidden aspects of their world -- an accident, a fire, loneliness or going to the big school for the first time. By projecting their experiences into the unreal, children can develop coping strategies that can be used in real situations.

Teachers and parents can facilitate play though the careful provision of opportunities for supervised, unstructured time, and open-ended situations with props, materials, and games. They can suggest directions, offering alternatives while permitting children to decide on a course of action for a specific time. In this way children can develop competencies from their own perspectives. Since effective play requires an opportunity for concentration, periods provided in the curricular structure must be of sufficient length for children to become fully engrossed in activities of their choice. The teacher must be a skilled observer in this process, providing a balance of appropriate structure, materials and support, yet offering freedom for children to set their agendas, pace, and choice of the peer or solitary play.

Suggested Further Reading


The creative arts are an integral part of a kindergarten program. Art, music, movement, literature, and drama help children to make their feelings manageable and to share their delights, fears, interests, and understandings with others. Through the use of different media, children explore thoughts, impressions, and feelings about their own experiences. Creative arts experiences are a means of nonverbal communication and provide a bridge to verbal communication which becomes increasingly complex as children grow.

Involvement with the creative arts enhances children's creativity. Since creativity pertains to their intellectual as well as artistic inventiveness, this process has implications for all areas of the kindergarten curriculum. A learning environment which integrates many curriculum areas offers unlimited opportunities for the use of drawing, painting, malleable materials, music, movement, and dramatic play. Day (1983) suggests that three characteristics are essential in such a setting: (a) Children are actively involved; (b) learning is experience based; and (c) there is individualization in relation to children's interests, developmental abilities, and learning styles. Such an integrated learning environment must be practically structured in relation to time, space, equipment, and materials so that children and teachers make maximum use of it. Another important aspect of the environment is that children look at, listen to, smell, feel and taste things that are viewed in their own culture and the cultures of others, as good and beautiful.

While the raw materials of the creative arts curriculum (i.e., clay, dough, paint, crayons, musical instruments, and costumes) serve a multitude of purposes in the kindergarten, authorities in the field of art education, Lowenfeld and Brittain (1982) have long emphasized the relationship between the creative process and mental growth. They have advocated that children be permitted to use open-ended art materials in their own way for their own purposes. Dyson's (1983) observations of the spontaneous drawing/writing activity of kindergarten children support this open-ended approach to the arts. The children Dyson studied differentiated and consolidated personal meanings embodied in their pictorial and written symbols in the process of moving from one graphic form to another. Smith (1983) however, argues against a restricted role of the teacher in relation to the children's visual art activities. She stresses that current theory supports an interactional view of development involving both a child's genetically-influenced structure and environmental stimulation. When the teacher has an in-depth understanding of the artistic process of young children, the teacher can make well-informed decisions about the adult's active role in children's creative arts experiences. Chapman (1980), writing in relation to movement and dance, emphasizes the importance of providing experiences which foster children's problem solving and experimentation. She concludes that with such a focus, "dance experiences for the child will become a part of the core of learning" (p. 9).
The common thread uniting the creative arts aspect of a kindergarten curriculum is that the creative arts provide for children's representative thoughts about their own experiences. Kindergarten teachers have their own unique interests, abilities, talents, and understandings in relation to the arts and may place more emphasis on one medium than another. Because the teachers' task is to help children make sense out of the world, teachers do not need to be virtuosos. What is important is that they be knowledgeable about the development of young children and have a basic understanding of the different media so that they can intentionally provide a broad framework of appropriate materials, equipment, experiences, body awareness, and props; respect the children's representations; provide guidance; and recognize the importance of children remaining in touch with their own centers of self.

References


Assessing Young Children

Assessments of young children occur on many levels, formally and informally, and are made by parents, medical, and child care professionals, friends and relatives, for a variety of purposes. As school systems increasingly focus on assessment of readiness for kindergarten, it is imperative that early childhood professionals share their knowledge of young children’s needs, competencies, and developmental processes, in order to have an impact on assessment methods and practices.

A child’s development occurs along a continuum of growth from the total dependence of infancy toward full-functioning, independent adulthood. Optimal growth occurs when the child’s environment responds in a manner congruent with this or her developmental needs at any given point along this continuum. Difficulties occur when the genetic endowment of the child and/or the environmental response to the child’s needs interfere with the process of development and growth.

Developmental progression has several interrelated aspects including emotional, social, cognitive, and physical. A wholistic approach to assessment allows all of these areas to be addressed. The tendency in assessment however, has been to focus primarily on cognitive development. While cognition is certainly important, the growth of a whole, fully-functioning person depends on more than the development of intelligence. Assessment of young children must consider all aspects of development, since difficulties in one area can affect growth in other areas. The purpose of a wholistic assessment is to determine where the child is in the overall progression of development, and to highlight areas of difficulty as well as areas of strength.

Since development is a continuous and dynamic process, early childhood professionals need to approach the process of assessment from a similarly dynamic perspective. We make informal assessments on a moment-to-moment and day-to-day basis as we interact with children. Components of this ongoing assessment process include our own direct observations, as well as those of colleagues and of the child’s parents; and an understanding of the feelings the child evokes within us, and within parents, colleagues, supervisors, and collaborators.

Viewing assessment as an ongoing process allows us to consider the feelings and relationships that occur in interactions with a particular child and how they change over time. The range of feelings stirred in us by a child -- such as pleasure, anger, affection, disgust -- can be useful clues to understanding how the child feels about him or herself and can indicate the reactions the child is accustomed to eliciting from others. For example, a 4 year-old boy who is constantly making his teacher or caregiver feel angry by testing every limit, may himself be a very angry child. The caregiver’s feeling that she or he is always being an authority figure for him may lead to the speculation that he is a frightened child who needs protection and who sees the world as
unpredictable and untrustworthy.

Adding to our knowledge the child’s and family’s history further enriches the assessment process. For example, we may learn that the child described above was the third child in the family, that his siblings are one and two years older than he, that his mother’s own mother died shortly before he was born, and that both parents felt overwhelmed and depleted by the responsibilities of caring and providing for three young children. Knowledge from child development theory that a child’s earliest experiences of consistent and dependable nurturance form the basis for developing a sense of trust, gives meaning to this information and gives us some understanding of possible reasons for his behavior as well as the stressful family situation at that time.

This kind of ongoing assessment, which includes direct and indirect observations, evoked feelings, knowledge of the child’s and family’s unique history, and knowledge of overall child and family development, can (a) aid us in understanding where a child’s particular vulnerabilities and strengths lie; (b) indicate possible reasons, and (c) point toward a focus for further, more in-depth assessment.

Like adult behavior, children’s behavior is motivated. There are reasons for the particular behavior displayed by a child; it does not occur simply at random. Behavior has meaning and is a way that children communicate their concerns to us. In order to intervene appropriately, we need to understand what the child’s behavior means at this point in time. What is the child communicating to us through his or her behavior? What are the underlying reasons for the behavior? It may be a temporary regression or a fixation. It may be a reaction to a specific event, change or trauma, or an entrenched pattern of behavior. It may be the result of organic factors or of cultural influences and expectations. Again, developmental history of the child, as well as an understanding of the significant events in the history of the family, are critical in clarifying the reasons for a child’s behavior.

While development is a continuous, ongoing process, it also encompasses periods of regression. A spurt of growth may be followed by a plateau or backsliding. Assessment must take into account the child’s growth over an extended period of time -- that is since birth -- in order to determine if a specific behavior is a symptom or a temporary regression in preparation for further growth. A symptom may require further intervention, while a temporary regression may need to be accepted as such in order to yield eventually to growth. For example, a 4 year-old’s bedwetting following a move to a new home may subside spontaneously once she becomes comfortable in the new setting. Another child may resist toilet training as a way of establishing some control of her own body, and an identity separate from her parent. If she cannot find other ways to develop her sense of self, this symptom may become fixed.

In making an initial assessment, it is important to evaluate the child’s language abilities and development of physical abilities (such as
coordination, gross-motor, fine-motor). Where these are not age-appropriate, further assessment may include the expertise of a speech and language specialist for the former and of an occupational therapist or pediatric neurologist for the latter.

What other kinds of things do we need to look for in developing an assessment of the whole child? Here are some examples:

- How does the child respond to new and unfamiliar people and situations? To change in routine? To transitions from one activity to another? What coping strategies does the child use?

- How does the child separate from mother/father? What is their reunion like?


- Does the child display an age-appropriate ability to distinguish fantasy from reality?

- Is the child able to play alone? With another child? With a group of three or more?

- Is the child able to be a leader as well as a follower?

- How does the child view him or herself?

- Does the child exhibit a range of feelings. Are they usually appropriate to the situations?

- Can the child appropriately use the adult as a resource for meeting needs?

- How does the child respond at critical times of the day (e.g. meal times, transitions, toileting)?

- Is the child aware of the routines of his or her day?

This kind of dynamic and wholistic approach to assessment is an invaluable first step in evaluating the development of young children. At minimum, any behavior that is not developmentally appropriate is cause for further exploration. A formal diagnostic assessment is indicated whenever informal assessment raises concerns about the child's ability to continue to make developmental progress. Early childhood evaluation centers staffed by multidisciplinary teams of professionals - psychologists, occupational therapists, pediatricians, social workers, speech therapists, neurologists, child development specialists -- may be found at some hospitals and universities. These centers can provide formal diagnostic assessment and referrals to other community services. School districts also evaluate children for placement in special programs, as mandated by
Public Law 94-142, and can be a valuable resource.

It is important that parents be involved in the assessment process from the beginning, as participants in observation of the child's behavior and as providers of both child and family developmental history. If and when further evaluation or referral is indicated, parents need to be involved participants in the process of assessment. Because parents feel extremely vulnerable as their child is being evaluated, professionals need to be sensitive to the extent to which the parent views the child as extension of him or herself. An assessment of a child should be shared with caring and discretion, but without obscuring the important areas of concern. A child's strengths as well as problems should be discussed non-judgmentally and with empathy for the parents' feelings. When a child has serious difficulties, parents are likely to experience this as their own failure and react with intense anxiety, pain, grief, guilt, denial, and anger. Parents need help, understanding, and support as they go through this process, just as much as their child needs special help that will address his or her specific needs.

In essence, assessment of young children begins the moment we have contact with them. It is a dynamic process that highlights each child's progression along the continuum of development. When developmental progress in any of its aspects -- physical, social, emotional, cognitive -- is being impeded, early childhood professionals have the responsibility to try to understand why, and to help parents involve appropriate professionals in determining if and how to intervene.

Suggested Further Reading


DEVELOPMENTAL KINDERGARTEN
as defined by the Chicago AEYC
Commission on Child Development and
Elementary Schooling

A. Curriculum:

A. Developmental curriculum provides

1. a learning environment which recognizes and responds to a child’s needs in each of the developmental areas of physical, social, emotional, and cognitive.

2. an opportunity for the child to initiate interactions with people and materials that facilitate learning in the developmental areas.

B. Teachers:

In order to provide a developmental curriculum the teacher

1. observes the child in order to assess developmental levels based on his or her knowledge of developmental needs of children.

2. meets each child’s developmental level and challenges each child to deepen understandings and new learnings through experiences with materials that are utilized in a variety of ways.