

## Early Childhood Education Curriculum

### Topic Objective:

At the end of this topic student would be able to:

- Understand the Preschool Curriculum Models
- Know Curriculum Models
- Define Curriculum Disputes in Early Childhood Education. ERIC Digest
- Explain why has the academic approach grown in popularity?
- Describe how can we distinguish academic from intellectual goals?
- Analyze Does research favor constructivism or instructivism?
- Highlight what about children's intellectual development?
- Elaborate what teaching methods support children's intellectual development?

### Definition/Overview:

This issue of The Evaluation Exchange charts the course of early childhood programming and evaluation over nearly half a century. Contributing authors offer a range of views on how best to communicate the importance of investing in a child's early years and how to improve early childhood programs and policies. Several articles consider the explosion of science from longitudinal studies of child outcomes to a large-scale demonstration program that has helped forward our understanding of how young children learn and grow. Finally, a number of articles suggest that better information is needed to close the persistent gap in achievement between children from low-income families and those from middle-income homes.

### Key Points:

#### 1. Preschool Curriculum Models

The content and composition of the preprimary program, including all daily activities, transitions, and routines which impact on the child's physical, social, emotional, and intellectual development.

#### 2. Curriculum Models

The term curriculum model refers to an educational system that combines theory with practice. A curriculum model has a theory and knowledge base that reflects a philosophical orientation and is supported, in varying degrees, by child development research and educational evaluation. The practical application of a curriculum model includes guidelines on how to set up the physical environment, structure the activities, interact with children and their families, and support staff members in their initial training and ongoing implementation of the program. Curriculum models should be central to any discussion of early childhood programs. Curriculum models are essential in determining program content and in training and supervising staff to implement high-quality programs. In order to provide a preschool program of the highest quality, it is necessary to adopt a research-based curriculum model.

### **3. Curriculum Disputes in Early Childhood Education. ERIC Digest**

Disputes concerning curriculum and teaching methods go back a long way in the field of early childhood education. Over the years, many different terms have been used to capture the opposing positions. In recent years, the term academic has come to describe those parts of the early childhood curriculum intended to help children master the basic skills involved in literacy and numeracy. From the academic--or instructivist--perspective, the young child is seen as dependent on adults' instruction in the academic knowledge and skills necessary for a good start for later academic achievement. This perspective is in direct contrast to the active and interactive curriculum assumed by proponents of the constructivist approach, who see young children as active constructors of knowledge; a major goal of a constructivist curriculum, then, is to provide ample opportunity for active construction of knowledge. This Digest considers instructivist and constructivist approaches to early childhood education and suggests that attention to children's intellectual development may inadvertently be overlooked by both sides. The main thesis here is that just because children are not engaged in formal academic instruction does not mean that what they are doing is sufficient to support their intellectual development.

### **4. Why has the academic approach grown in popularity?**

Several factors may account for increasing pressure to introduce children to academics (e.g., in literacy and numeracy skills) as early as the preschool and kindergarten years.

One factor is the increasing demand and widening expectation that preschool and kindergarten programs ensure children's readiness for the next grade or class level. This phenomenon is part of a traditional tendency at every level of education to push down curriculum expectations from older to younger children. Another factor may be that the traditional importance given to spontaneous play as young children's natural way to learn may seem less urgent today than a half a century ago when, for most children, opportunities and artifacts for play were less plentiful than today, especially in the home. Much of the current contentiousness between the "instructivists" and "constructivists" revolves around the extent to which formal academic instruction may be appropriate or even essential for those young children whose early environments may not provide sufficient experiences for spontaneous informal learning of basics such as the alphabet and the names of colors and shapes. On the constructivist side, it is assumed that child-initiated exploration, well "scaffolded" by adults, is the developmentally appropriate way to support children's learning. By contrast, those favoring a large component of formal instruction in basic academic skills put children in a passive-receptive role of internalizing the transmitted knowledge and systematically practicing the literacy and numeracy skills to be learned. It is useful to keep in mind that today most classes offer some mix or blend of these two positions.

##### **5. How can we distinguish academic from intellectual goals?**

Academic tasks are typically carefully structured, sequenced, and decontextualized small bits of information that often require some small group or individual instruction by a knowledgeable adult. They include exercises designed to help achieve mastery of tasks. The academic tasks in the early childhood curriculum usually address facts and skills that the majority of children are unlikely to learn spontaneously or by discovery, although under favorable conditions, many children do so. These tasks frequently involve memorizing lists or symbols, responding to questions that have correct answers, and practicing routine tasks that can be assessed as right or wrong. Intellectual goals, on the other hand, address dispositions, that is, habits of mind that include a variety of tendencies to interpret experience. The intellectual dispositions include the dispositions to make sense of experience, to theorize about causes and effects, to hypothesize explanations to account for observations, and to analyze and synthesize whatever information is available. These dispositions can be seen when children are engaged in

investigations of things around them in the course of which they persist in seeking answers to their questions and solutions to the problems they encounter. Examples of these intellectual dispositions are shown vividly in Beneke's report of a preschool car project and in the "Shoe & Meter" project of the children in Reggio Emilia.

## **6. Does research favor constructivism or instructivism?**

More than half a century ago, Dorothy Gardner attempted to put to rest once and for all a similar controversy raging at that time about curriculum and teaching methods by conducting a comparative study of two nursery schools. School A was characterized by what would be called today "developmentally appropriate practice," emphasizing creativity and spontaneous play. School B was characterized by formal teacher-directed activities, now commonly referred to as "academic" in focus. Despite Gardner's findings in favor of School A, the debate over curriculum and methods resumed barely a generation later. In the past 20 years, similar comparative studies have been reported. The results of these studies have been somewhat mixed, though generally close to Gardner's earlier findings that those children enrolled in preschools on the constructivist side of the dichotomy fare better in school in the long run-- especially the boys. Longitudinal studies comparing "instructivist" and "constructivist" approaches suggest that the early gains of children in the "instructivist" preschool curricula do not last more than a year or two.

## **7. What about children's intellectual development?**

One of the major concerns about this historical squabbling over goals and methods is that both sides in the struggle may overlook curriculum and teaching methods beyond the traditional dichotomy. Years of experience of observing early childhood classrooms suggest that both sides under-emphasize and undervalue a third option--namely, curriculum and teaching methods that address children's intellectual development as distinct from the instructivist emphasis on academic learning and the constructivist emphasis on children's play and self-initiated learning. Constructivist theory does not neglect children's intellectual development; however, constructivist theory is sometimes misinterpreted. Believing that children "construct their own knowledge," some adults do little more than set out a variety of activities that children enjoy, while studiously avoiding formal instruction in basic academic skills. Indeed, it is not surprising that observers of nonacademic preschool and kindergarten classes who have little knowledge

of young children (e.g., E. D. Hirsch, Jr.) criticize "progressive" and "constructivist" classes as banal, vacuous, overemphasizing play and fun, and wasteful of children's capacities. At the same time, a strong academic approach may undermine the disposition to use the knowledge and skills so intensely instructed. The disposition to be readers or, similarly, to be ready users of mathematical concepts and skills often painfully acquired may be damaged by premature instruction, given the amount of drill and practice usually required for success in mastering these skills at an early age.

### **8. What teaching methods support children's intellectual development?**

An appropriate curriculum addresses strengthening and using the intellectual dispositions, offers good processes about rich content, and results in high-quality products. For these reasons, many teachers have been incorporating project work into the curriculum. Project work not only provides contexts for the intellectual dispositions involved in the investigations that children undertake, but it also provides texts and pretexts for children to make meaningful and functional use of the academic skills they are taught during the "instructive" part of the curriculum. Thus, we might "trichotomize" the early childhood curriculum so that it is focused on at least a trio of goals: (1) social/emotional development and (2) intellectual development and (3) the acquisition of meaningful and useful academic skills. Excellent examples of meaningful long-term projects in which children's intellects as well as growing academic skills flourish can be seen in the work of the children in the preprimary schools in Reggio Emilia, Italy, as well as in reports of projects by Beneke (1998) and Helm. These works demonstrate that young children can express their intellectual dispositions in the pursuit of serious topics and apply their emerging and academic skills and generate high-quality products simultaneously

#### **Topic Objective:**

At the end of this topic student would be able to:

- Understand the Early History of Early Childhood Education
- Know the Recent History of Early Childhood Education

- Define the Recent Development
- Describe The Philosophical Background of Childhood Education in England
- Explain the Developmentally Appropriate Practice
- Analyze what have we learned?

### **Definition/Overview:**

This topic has examined the changing curriculum for early childhood education in England. The article has shown that traditional early childhood education in England has been child centered in contrast to approaches that are subject centered and teacher directed. Traditional early childhood education has emphasized individual children's interests, free play, firsthand experience, and integrated learning. However, in 1996, the government introduced a framework for an early years curriculum, redefined the child-centered educational model, and initiated reforms for raising standards. The national preschool curriculum framework (Early Learning Goals) emphasizes not only integrated learning but also literacy and numeracy. The framework also specifies particular achievements to be expected of 4- and 5-year-olds. Despite the pros and cons of the appropriateness of the framework, more formal instruction in literacy and numeracy teaching is being directly and indirectly imposed upon young children. Government initiatives and inspection have started to change the traditional nature of English preschool settings.

### **Key Points:**

#### **1. Early History of Early Childhood Education**

Early childhood care and education for young children began to emerge in England in the late 18th century on a voluntary and philanthropic basis. In 1816, the first nursery school in the United Kingdom was established at New Lanark in Scotland by Robert Owen for the children of cotton mill workers. Children ages 1 to 6 were cared for while their parents and older siblings worked in the cotton mills. Owen advocated free and unstructured play in the education of young children and did not press for formal training. He endeavored to create a future citizen through the process of informal teaching and physical activities. Although Owen's ideas were ahead of his time, his example stimulated a significant interest in early childhood education and the founding of a number of infant schools in Britain. Passage of the Education Act of 1870 was an important event because

the act established compulsory elementary schools for all children from the age of 5. In 1880, elementary education became compulsory for all children between the ages of 5 and 13. In the absence of special institutions for younger children, elementary schools admitted children younger than 5 years old, to protect them from the poor and unhealthy physical conditions of slum houses and dangerous streets. In 1905, five women inspectors from the Board of Education investigated the admission of infants to elementary schools as well as the curriculum used to instruct them. These inspectors reported the inappropriateness of such provision for these young children and recommended that children under the age of 5 have separate facilities and a different teaching approach from older children. The inspectors criticized the emphasis on monotonous repetition and rote memorization in the elementary school curriculum. As a consequence of this report, children under 5 were officially excluded from elementary schools. In 1911, Margaret McMillan and her sister Rachel established an open-air nursery for poor children in Deptford. McMillan's educational model was inspired by her socialist ideology. She was concerned for the health and well-being of working-class children, and she stressed the need for health care with proper nourishment, hygiene, exercise, and fresh air. Her nursery allowed free access to play areas and gardens and was not predicated upon a fixed time schedule. McMillan's methods, with her emphasis on fresh air, exercise, and nourishment, still influence some aspects of current English nursery practice.

## **2. Recent History of Early Childhood Education**

By the 1960s, the decline in family size and the closure of day nurseries after the Second World War had reduced the opportunities for children to play with other children. At the same time, awareness of the educational value of play may have become more widespread. It was impossible for Local Education Authorities (LEAs) to increase the number of nurseries, because the Ministry of Education Circular 8/60 stated that there could be no expansion of nursery school provision. During this period, the lack of LEA provision of nursery places and growing parental interest in young children's welfare and education created a new type of preschool provision: playgroups. The origin of the playgroup movement is linked to Belle Tutaev, a London mother, who in 1961 organized a nursery group for her small daughter in a church hall, sharing the tasks of child care with a neighbor. The educational authorities welcomed the playgroup movement as a low-cost substitute for nursery schools. In 1972, Margaret Thatcher, as Secretary of State

for Education, presented a White Paper on education titled "Education: A Framework for Expansion". The White Paper proposed that nursery education be provided for all who wanted it, saying that by 1980 there would be nursery school places for 50% of 3-year-olds and 90% of 4-year-olds. However, this promised nursery expansion was not forthcoming because of the economic recession. Throughout the 1970s and 1980s, nonstatutory preschool provision was neglected and undeveloped.

### 3. Recent Development

The Rumbold Report *Starting with Quality* and the Royal Society of Arts Report *Start Right* both stressed the importance of quality in early years education. The Rumbold report recommended a curriculum based on eight main areas of learning, following in the footsteps of a recent HMI (Her Majesty's Inspectorate) publication *The Curriculum from 5 to 16*: (1) aesthetic and creative, (2) human and social, (3) language and literacy, (4) mathematics, (5) physical, (6) science, (7) spiritual and moral, and (8) technology. The Royal Society of Arts Report recommended that high-quality provision be made available to all 3- and 4-year-olds, reviewing evidence that high-quality early education leads to lasting cognitive and social benefits in children. Ball set out the following major prerequisites for "high-quality" provision: an appropriate early learning curriculum; the selection, training, and continuity of staff; high staff:children ratios; buildings and equipment designed for early learning; and a partnership role for parents. In 1996, the Conservative government introduced the first stage of a Nursery Voucher scheme linked to a set of guidelines for prestatutory settings: *Desirable Outcomes for Children's Learning on Entering Compulsory Education*. Since the introduction of the Voucher scheme and *Desirable Outcomes*, early childhood education has become an issue on the national policy agenda, and there have been significant changes in the practices and politics of early childhood education. The Voucher scheme allowed parents to use vouchers worth up to 1,100 per child for up to three terms of part-time education for their 4-year-old children, in any form of preschool provision. In order to register for the receipt of vouchers, preschool provisions had to show that they were moving children towards the *Desirable Outcomes* as defined by the School Curriculum and Assessment Authority. The *Desirable Outcomes* are "learning goals" that children should achieve before they enter compulsory education. They emphasize early literacy, numeracy, and the development of personal and social skills, and they contribute to children's knowledge,

understanding, and skills in other areas. However, in 1997, the incoming Labour Government abolished the voucher scheme and made its own plans for the development of early years services. The new government tried to raise standards and significantly increased public funding of early years education. The government provided direct funding to preschool institutions for part-time places for 4-year-old children and an increasing number of part-time places for 3-year-old children. However, the receipt of this funding for 3- and 4-year-old children is dependent on each preschool provision meeting government requirements for the regular inspection of preschool settings, in terms of the framework of Desirable Outcomes, now revised as Early Learning Goals.

#### **4. The Philosophical Background of Childhood Education in England**

The main principles of traditional early childhood education in Britain are child centered, in contrast to the traditional subject-centered and teacher-directed approaches of secondary education. This section examines the key underlying principles of English traditional early childhood education: individualism, free play, developmentalism, and the child-centered perspective of the adult educator.

- **Individualism**

Western child-centered education is based on individual children's needs and interests, and on educators' respect for the differences between individual children. Dewey emphasized individuality, with the curriculum chosen by the child rather than imposed by the teacher. Montessori had great respect for the child as an individual and for children's spontaneous and independent learning. She believed that the child possesses an intrinsic motivation toward the self-construction of learning. Supporting the view that children are innately curious and display exploratory behavior quite independent of adult intervention, the Plowden Report says, "The child appears to have a strong drive, which shows itself at a very early age, toward activity and the exploration of the environment.... As far as can be judged, this behaviour is autonomous since it occurs when there is no obvious motivation such as hunger." The intrinsic motivation theory of child-centered education relates to the learning by doing theory. In English preschool classrooms, learning by being active and interactive, by exploring the environment, has gained universal status. Dewey advocated that children learn best by exploring and manipulating their environment. Isaacs also

emphasized the importance of learning by doing. She wrote that play is not the only means by which children come to discover the world; the whole of their spontaneous activity creates their psychic equilibrium in the early years. This learning by doing theory has been accepted implicitly by English preschool teachers, together with the need to provide a free and spontaneous environment and the rejection of formal instruction.

The child-centered view of the child's intrinsic motivation for learning has been widely criticized. The child-centered view is that children are innately curious and keen to find things out, with a strong drive to explore the environment. This theory suggests that children learn more effectively if their activities are self-chosen and self-directed. However, many educators have warned of the dangers of an exclusive and unrealistic emphasis upon the child. Galton criticized child-centered theory as a "romantic" view of childhood requiring a curriculum totally dictated by the child's interests. Kogan questions whether children have a natural intellectual curiosity and whether they are really motivated to learn and are keen on discovery. He says that many children in the classroom do not display eagerness to learn and are not able to achieve enough by learning through discovery. Blenkin and Kelly also criticize learning by discovery, claiming that discovery is not possible unless one knows what one is discovering. They recommend that "the only sensible concept of learning by discovery is one which recognizes the essential contribution of the guidance that the teacher can and should provide".

- **Free Play**

In the English preschool, play is an integral part of the curriculum, founded on the belief that children learn through self-initiated free play in an exploratory environment. Free play is especially the norm in the traditional English nursery curriculum, following Rousseau, Froebel, Owen, McMillan, and Isaacs. According to Froebel, play is "the work of the child" and a part of "the educational process." The Plowden Report suggests that play is the principal means of learning in early childhood. "In play, children gradually develop concepts of causal relationships, the power to discriminate, to make judgements, to analyze and synthesize, to imagine and formulate". Traditional English nurseries have worked with an integrated early childhood curriculum. The integrated curriculum is, as New said, "the blending of

content areas into thematic or problem-focused units of study and a child-centered approach to learning and instruction." Dewey advocated an integrated early childhood curriculum instead of a subject-divided curriculum. He argued that young children do not think in subjects and that their learning is holistic. According to the guidelines of the Early Years Curriculum Group, "Learning is holistic and for the young child; it is not compartmentalised under subject headings". In traditional English preschools, the rigid, subject-divided curriculum is rejected; instead, free play is regarded as the integrating mechanism that brings together everything learned.

Although free play has many benefits and is a necessary part of preschool classrooms, the early years program that prioritizes free play has several crucial weaknesses. First, much research evidence shows that free play does not maximize cognitive development. Sylva, Roy, and McIntyre investigated the ways in which both children and adults spend their time during free play sessions in preschools. They found that there was a lack of challenging activity in children's free play, which tended to involve simple repetitive activities. Meadows and Cashdan also investigated children's behavior during free play sessions and reported that the nursery teachers in their study were busy and kind to the children but not very demanding. During free play, children did not persist at tasks, and the conversation between adult and child was very limited. Meadow and Cashdan argued that supervised free play has limited benefits for children and that a high level of adult-child interaction during play is necessary to optimize children's learning.

- **Developmentalism**

If you have benefited from free access to ECRP, please consider making a financial contribution to ECRP so that the journal can continue to be available free to everyone. Sequential developmentalism is one of the most influential beliefs in English early years education. The term refers to the way in which the child passes through a naturally ordered sequence of development towards logical and formal thinking. Piaget's clinical and observational studies developed the idea of readiness and explored the process by which children advance through the sensorimotor stage (0-2 years) and preconceptual stages (2-7 years) in order to progress to logical and abstract thinking. According to this version of developmentalism, a child must be "ready" to move on to the next developmental stage and cannot be forced to move to a higher

level of cognitive functioning. Although developmentalism and readiness are widely reported to be dominant in English early childhood education, several critiques have been articulated about the readiness concept in developmentalism. For instance, Donaldson challenges Piaget's views of egocentric thinking through a number of fascinating and ingenious experiments and argues that the rational powers of young children have long been underestimated. The idea of "readiness" has often led to a lack of structure in the curriculum and to a lack of progression. In developmental theory, consideration of the nature of knowledge seems to be ignored. According to Bruner, knowledge of child development is necessary but is not sufficient, and early years practice also needs a firm and sufficient knowledge base. He argues that to avoid trivializing education, we need to integrate knowledge about teaching (pedagogical knowledge) with both knowledge about children's development and knowledge about knowledge itself.

- **The Role of the Adult**

The traditional view of the English nursery teacher's role is that he or she is not an expert or authority, but an adviser and facilitator. The legacy of not intervening in the child's discovery that comes from Froebel, Montessori, and Dewey remains as a strong force within the ideologies of early childhood educators in England. Montessori argued that adults must foster children's inner drive, not impair it by imposing too many restrictions and obstacles in the child's environment. Similarly, Dewey believed that the teacher was not an instructor of passive learners nor a referee in a competition. The child-centered teacher is a guide and an arranger of the environment, rather than an instructor. Thus, teachers are supposed to select materials and activities that will interest children and enable them to find out about the surrounding world. Peters explains that "the image of the teacher" presented in the Plowden Report is of a "child-grower" who stands back so that children will proceed from discovery to discovery when they are "ready." However, he says that teaching should not be confined to one approach or method. Peters says that teaching can take the form of instruction and explanation, of asking leading questions, of demonstrating by example, and of correcting attempts at mastery. Moreover, there is an alternative view that adult support can improve children's concentration and attention span. For example, Vygotsky stresses the active role of the adult in maximizing children's

intellectual development. He contends that children succeed in performing tasks and solving problems when helped by an adult. Bruner also believes that an adult presence increases the richness and length of play. Bruner describes the adult's role as "scaffolding" a child's learning, putting a scaffold around the child's learning to support the child until the child can operate independently at that level. The above discussion suggests that appropriate intervention and a structured approach to teaching are components of effective preschool practices.

## **5. Developmentally Appropriate Practice**

Those who advocate for developmentally appropriate practice (DAP) do so based on the conviction that these classroom practices enhance children's development and facilitate learning. This ERIC Digest examines recent research on DAP and social-emotional and cognitive development, and describes what we have learned about DAP in early childhood classrooms.

- **Social-Emotional Development**

Given the context in which the National Association for the Education of Young Children's original position statement was released, namely Elkind's discussion of the "hurried child," it is not surprising that the earliest studies on developmentally appropriate practice focused on stress and emotional development. Two research teams documented that children exhibit more stress in didactic environments than in child-initiated environments. In the Hyson, Hirsh-Pasek, and Rescorla study, preschool children enrolled in child-initiated programs displayed lower levels of test anxiety than children enrolled in academic programs, regardless of parental preferences for classroom approaches. In the second study, children in inappropriate classrooms exhibited more total stress behaviors throughout the day and more stress behaviors during group times and workbook/worksheet activities.

- **Cognitive Development**

Turning now to cognitive development, we focus on creativity, language development, children's perceptions of their cognitive competence, and traditional measures of achievement. Classrooms characterized by child initiation appear to

facilitate children's creative development. The Hyson research team found that children in child-initiated classrooms scored higher on measures of creativity, or divergent thinking, than children in academically oriented classrooms. In two other studies on language development in child-initiated and academically focused programs, the developmentally appropriate, or child-initiated, programs were associated with better language outcomes. Progress reports from public-school preschool programs indicated that children in child-initiated classrooms had better verbal skills than children in academically oriented programs. Children's receptive language was better in programs with higher quality literacy environments and when developmentally appropriate activities were more prevalent. Young children in developmentally appropriate programs also seemed more confident in their own cognitive skills. Children described their cognitive competence more positively when they attended child-initiated rather than academically oriented programs.

When using the traditional measuring sticks of achievement tests and report card grades, it is difficult to say whether child-centered or didactic programs are superior. Similar to the state of affairs for social development, the available research is equivocal with regard to these assessments of cognitive development. The majority of the studies indicate that a didactic approach is not necessary to promote children's learning of academic skills. Supporting developmentally appropriate practice are studies by Sherman and Mueller and Marcon. Sherman and Mueller observed better reading and mathematics achievement scores for children attending developmentally appropriate kindergarten through second grade. Preschool children in Marcon's study had more positive progress reports overall and specifically on math and science when they attended child-initiated classrooms. Mathematics achievement was similar for children in both types of classrooms, however. Hyson, Hirsh-Pasek, and Rescorla found no differences in academic achievement as a function of the developmental appropriateness of the program preschool children attended. Studies following children over time suggest there may be academic benefits to DAP in the long run. Children experiencing preschool programs rating high on developmental appropriateness do well academically in first grade. In addition, children of low socioeconomic status attending appropriate kindergarten classrooms tend to have better reading achievement scores in first grade than children attending inappropriate classrooms. These are encouraging findings, given that the classroom children

currently attend is also likely to influence their performance. The fact that differences between children in more- and less-appropriate classrooms are evident a year or more later suggests that children's learning environments during these early years are important.

## 6. What have we learned?

What have we learned from research on DAP? First, developmentally appropriate practices are not the norm in early childhood programs. Although teachers endorse this pedagogical method, they often struggle with implementation. Professional preparation designed to help teachers implement developmentally appropriate practice can be quite effective. We need to learn more about how to most effectively support teachers' implementation of developmentally appropriate practice. Second, parents and teachers may not agree on the value of DAP. Helping parents understand the link between DAP and basic skill acquisition may prevent potential tensions between parents and teachers over instructional methods. The emotional costs of academically oriented classrooms, particularly for children from low-income, linguistically or culturally diverse groups, behoove us to make parents aware of the potential benefits of DAP. Third, developmentally appropriate practices create a positive classroom climate conducive to children's healthy emotional development. Emotional development is an area often neglected when making programming decisions. This literature reminds us that children's emotions and their participation in classroom activities are vitally linked. Fourth, we have only scratched the surface in understanding how developmentally appropriate practices influence children's social development. While developmentally appropriate practices enhance children's social skills in general, additional data are needed to determine how these practices affect other facets of socialization. Classroom practices and children's cognitive development interact in complex ways

### Topic Objective:

At the end of this topic student would be able to:

- Understand the Top-Down Perspective On Quality
- Know the Bottom-Up Perspective On Quality

- Highlight the Outside-Inside Perspective On Quality
- Explain The Inside Perspective On Quality
- Describe The Development of a Program Standard

**Definition/Overview:**

The quality of early childhood programs can be assessed in many ways. Most of the literature on the subject examines quality by identifying selected characteristics of the setting, equipment, and program as seen by adults. Such an approach can be called assessment of quality from a top-down perspective. Another way to assess the quality of a program is to take what we might call a bottom-up perspective by attempting to determine how the program is experienced by the children. A third strategy, which we could call an outside-inside perspective, is to assess how the program is experienced by the families it serves. A fourth perspective is one from the inside, which considers how the program is experienced by the staff responsible for it.

**Key Points:****1. Top-Down Perspective On Quality**

The top-down perspective on quality typically takes into account such program and setting characteristics as the ratio of adults to children; the qualifications and stability of the staff; characteristics of adult-child relationships; the quality and quantity of equipment and materials; the quality and quantity of space per child; the number of toilets, fire safety provisions, and so forth; health and hygiene procedures and standards; aspects of working conditions for the staff, etc. There is substantial evidence to suggest that these program and setting characteristics do predict some effects of an early childhood program

**2. Bottom-Up Perspective On Quality**

It is reasonable to assume that the important ultimate effects of a program depend primarily on how it is viewed from below. If it is true that the child's experience of a program is the true determinant of the program's effects, assessment of program quality requires answers to the central question: What does it feel like to be a child in this

environment? Each question implies a criterion of quality, stated in terms of a continuum of desirability. When most answers are at the positive end of the continuum, we can assume that the program's quality is worthy of the children. The criteria of quality implied in the questions are based on an interpretation of what is known about significant influences on children's long-term growth, development, and learning. The older the children served by a program, the longer the time period required for reliable assessment of the quality of daily life as seen from the bottom-up. In other words, a good quality program is one in which, from the bottom-up perspective, experiences are intellectually and socially engaging and satisfying on most days. Such a program is not dependent on drumming up occasional exciting special events. Isolated events experienced in early childhood programs are unlikely to affect long-term development. However, experiences that may be benign or inconsequential if they are rare, but may be either harmful or beneficial if they are frequent or repeated, must be addressed in assessments of program quality.

Needless to say, there are many explanations for any answer to the questions listed above, and a program should not automatically be faulted for negative answers. (This is true for each set of questions contained in this digest.) Some of the causes of children's subjective experiences cannot be attributed solely to caregivers and teachers. This assumption concerning the limits of staff accountability implies that all staff are qualified and trained to employ the accepted practices, accumulated knowledge, and wisdom of the profession. This assumption further implies that the profession has indeed adopted a set of standards of practice. The field of early childhood education has already taken important steps in the direction of establishing consensus on standards of practice through the publication of professional associations' position papers on major issues. The most comprehensive such paper is that of the National Association for the Education of Young Children's (NAEYC) developmentally appropriate practice in early childhood programs serving children from birth through age 8. NAEYC has also issued position statements on testing and curriculum content and assessment. NAEYC's National Academy of Early Childhood Programs and its new National Institute for Early Childhood Professional Development is working on establishing consensus on professional standards of practice.

### **3. The Outside-Inside Perspective On Quality**

Ideally, the assessment of the quality of a program would take into account characteristics of parent-teacher relationships, and particularly, the answers of each parent and staff member to such questions as:

- Are my relationships with parents or staff: primarily respectful, rather than patronizing or controlling? accepting, open, inclusive, and tolerant, rather than rejecting, blaming, or prejudiced? marked by contacts that are ongoing and frequent, rather than rare and distant?
- Are my preferences for the goals and values for the children treated with respect? Parents are more likely to relate to their child's caregivers and teachers in positive ways when they understand the complex nature of their jobs, appreciate what they are trying to accomplish, and are aware of the conditions under which they work.

#### **4. The Inside Perspective On Quality**

The quality of an early childhood program as seen from the inside includes three dimensions: colleague relationships, staff-parent relationships, and relationships with the sponsoring agency. It is highly unlikely that an early childhood program can be of high quality unless the staff relationships within it are also of good quality. Good quality environments cannot be created for children unless the environments are also good for the adults who work in them. Of course, there may be some occasions when an environment has been "good" for the children at the expense of the staff (e.g., birthday parties), and some times when the reverse is the case; but on the average, a good quality program is one in which children and adults find the quality of their lives together satisfying.

The criteria implied by the questions for the outside-inside perspective can also be used to assess staff experience. In a country like the U.S., with a highly mobile and diverse population, it is unlikely that all the families served by a program are in total agreement on its goals and methods: a situation that inevitably leads to some level of parental dissatisfaction and parent-staff friction. The development of respectful and supportive relations between staff and parents of diverse backgrounds requires staff professionalism based on a combination of experience, training, education, and personal values. Certainly parents are more likely to approach teachers positively when teachers initiate respectful and accepting relationships. One potential indirect influence on the quality of a program is the nature of the relationships the staff members have with those to whom they are responsible. It is reasonable to suggest that, in principle, teachers and caregivers treat

children very much the way they themselves are treated by those they report to. (To be sure, some caregivers and teachers rise above poor treatment and some fall below being well-treated.)

## **5. The Development of a Program Standard**

In establishing the standards development initiative, the Government determined that all postsecondary programs should include vocational skills coupled with a broader set of essential skills. This combination is considered critical to ensuring that college graduates have the skills required to be successful both upon graduation from the college program and throughout their working and personal lives. A program standard is developed through a broad consultation process involving a range of stakeholders with a direct interest in the program area, including employers, professional associations, universities, secondary schools, and program graduates working in the field, in addition to students, faculty, and administrators at the colleges themselves. It represents a consensus of participating stakeholders on the essential learning that all program graduates should have achieved. Early childhood educators base their work with children on well-understood theories and make choices based on their knowledge. Core values enable early childhood educators to formally recognize their commitments to children, to families, and to themselves. They are aware of the need to responsibly address the recurring ethical dilemmas that arise when working in early childhood education settings. A code of ethics provides a framework within which early childhood educators act as professionals governed by the principles and requirements of the early childhood education field.

Curriculum development and implementation reflects the knowledge that young children learn through the active manipulation of the environment and concrete experiences that contribute to the child's development. Knowledge of child development informs early childhood educators about the sequence in which activities might be presented to children and the degree of developmental readiness necessary for children to achieve particular goals. Also, early childhood educators capitalize on spontaneous events in order to support child-initiated learning and promote supplemental learning that arouses curiosity and imagination. Early childhood educators understand the nature of human development and the adult's role in supporting children's development and learning. Responsive relationships, built upon emotional and physical availability and predictability between caregivers and children, are the foundation upon which children grow and flourish. A

sense of trust and respect is developed between early childhood educators and the children in their care. Understanding child development provides early childhood educators with insights into children's behaviour and helps them better grasp the context within which those actions occur. Early childhood educators accept typical variations among children and recognize potential problem areas that may require special intervention.

Evaluation and revision of curriculum require early childhood educators to regularly observe and analyze what children are doing in light of their development, the curriculum content, and goals of the program. Early childhood educators use developmentally appropriate observation techniques to look at how children are developing and the ways in which they respond to their environment. The early childhood educator collects relevant information and analyzes it in a reliable manner in order to reach a logical decision or form a valid opinion (inference) about potential reasons underlying a child's behaviour. Responding to children's physical, emotional, and social health needs is an integral part of the early childhood educator's everyday responsibilities. Graduates understand health, safety, and nutrition issues and provide a healthy environment that takes into account the well-being of groups of children and of the individual child within the group. Graduates have a knowledge of specific legislation (both provincial and municipal) related to health issues and the reporting of suspected child abuse and recognize the interconnection of governing legislation, professional standards, funding mechanisms, and administrative responsibilities in order to provide educated support and guidance to families

In Section 2 of this course you will cover these topics:

- Developmental Characteristics Of Young Children From Birth To 8 Years: Implications For Learning
- Organizing Infant-Toddler Programs
- Infant-Toddler Curriculum: Birth To Age

**Topic Objective:**

At the end of this topic student would be able to:

- Understand The Nature Of Development
- Know Learning Through Interaction
- Highlight Four Categories Of Learning
- Explain the Risks Of Early Academic Instruction
- Define the Variety Of Teaching Methods
- Describe the Quality Programs Nurture Relationships To Enhance Young Children's Learning
- Elaborate the Motivating Learning In Young Children
- Examine the Characteristics Of Motivation In Young Children
- Analyze the Developing Motivation

#### **Definition/Overview:**

This fascinating account of an unusual research project challenges many assumptions about how young children learn and how best to teach them. In particular it turns upside-down the commonly held belief that professionals know better than parents how to educate and bring up children; and it throws doubt on the theory that working-class children underachieve at school because of a language deficit at home.

#### **Key Points:**

##### **1. The Nature Of Development**

The concept of development includes two dimensions: the normative dimension, concerning the capabilities and limitations of most children at a given age, and the dynamic dimension, concerning the sequence and changes that occur in all aspects of the child's functioning as he grows. While the normative dimension indicates what children can and cannot do at a given age, the dynamic dimension raises questions about what children should or should not do at a particular time in their development in light of possible long-term consequences. In many preschool programs and kindergartens, young children are engaged in filling out worksheets, reading from flash cards or reciting numbers in rote fashion. But just because young children can do those things, in a normative sense, is not sufficient justification for requiring them to do so. Young children

usually do willingly most things adults ask of them. But their willingness is not a reliable indicator of the value of an activity. The developmental question is not, What can children do? Rather it is, What should children do that best serves their learning and development in the long term?

## 2. Learning Through Interaction

Contemporary research confirms the view that young children learn most efficiently when they are engaged in interaction rather than in merely receptive or passive activities.

Young children should be interacting with adults, materials and their surroundings in ways which help them make sense of their own experience and environment. They should be investigating and observing aspects of their environment worth learning about, and recording their findings and observations through talk, paintings and drawings.

Interaction that arises in the course of such activities provides a context for much social and cognitive learning.

## 3. Four Categories Of Learning

The four categories of learning outlined below are especially relevant to the education of young children:

- **Knowledge.** In early childhood, knowledge consists of facts, concepts, ideas, vocabulary, and stories. A child acquires knowledge from someone's answers to his questions, explanations, descriptions and accounts of events as well as through observation.
- **Skills.** Skills are small units of action which occur in a relatively short period of time and are easily observed or inferred. Physical, social, verbal, counting and drawing skills are among a few of the almost endless number of skills learned in the early years. Skills can be learned from direct instruction and improved with practice and drill.
- **Dispositions.** Dispositions can be thought of as habits of mind or tendencies to respond to certain situations in certain ways. Curiosity, friendliness or unfriendliness, bossiness, and creativity are dispositions or sets of dispositions rather than skills or pieces of knowledge. There is a significant difference between having writing skills and having the disposition to be a writer.

- **Feelings.** These are subjective emotional states, many of which are innate. Among those that are learned are feelings of competence, belonging, and security. Feelings about school, teachers, learning and other children are also learned in the early years.

#### 4. Risks Of Early Academic Instruction

Research on the long-term effects of various curriculum models suggests that the introduction of academic work into the early childhood curriculum yields good results on standardized tests in the short term, but may be counterproductive in the long term. For example, the risk of early instruction in beginning reading skills is that the amount of drill and practice required for success at an early age will undermine children's dispositions to be readers. It is clearly not useful for a child to learn skills if, in the process of acquiring them, the disposition to use them is lost. On the other hand, obtaining the disposition without the requisite skills is not desirable either. Results from longitudinal studies suggest that curricula and teaching methods should be designed to optimize the acquisition of knowledge, skills, desirable dispositions and feelings. Another risk of introducing young children to academic work prematurely is that those who cannot relate to the tasks required are likely to feel incompetent. Students who repeatedly experience difficulties may come to consider themselves stupid and may bring their behavior into line accordingly.

#### 5. Variety Of Teaching Methods

Academically focused curricula for preschool programs typically adopt a single pedagogical method dominated by workbooks, drill and practice. It is reasonable to assume that when a single teaching method is used for a diverse group of children, a significant proportion of these children are likely to fail. The younger the children are, the greater the variety of teaching methods there should be, since the younger the group is, the less likely the children are to have been socialized into a standard way of responding to their environment, and the more likely it is that the children's readiness to learn is influenced by background experiences which are idiosyncratic and unique. For practical reasons there are limits to how varied teaching methods can be. It should be noted, however, that while approaches dominated by workbooks often claim to individualize instruction, they really individualize nothing more than the day on which a child completes a routine task. Such programs can deaden the disposition to learn. As for the

learning environment, the younger the children are, the more informal it should be.

Informal learning environments encourage spontaneous play, in which children engage in whatever play activities interest them. Such activities may include group projects, investigations, constructions, and dramatic play.

## **6. Quality Programs Nurture Relationships To Enhance Young Children's Learning**

The National Association for the Education of Young Children (NAEYC) has developed 10 standards that outline what all preschools, child care centers, kindergartens, and other early childhood education programs should provide to nurture young children. One of the new standards focuses on the relationships that young children develop with adults and other children, which are crucial to early learning and development. Positive relationships formed through warm, sensitive, and responsive care help children feel valued and gain more from their learning experiences. Children need positive relationships so that they feel comfortable and learn how to cooperate with others. Relationships between teachers and families are also important, and help build environments that nurture children's growth and development. There are many ways that quality early childhood programs build relationships with children and among adults. When you visit a program, watch how teachers interact with the children, and look for evidence that teachers are fostering positive relationships, such as:

- Classrooms are welcoming to all children, and children are encouraged to join the group.
- Teachers communicate with children in a warm manner, including laughing and showing affection, and respond to their needs. Teachers use a gentle tone of voice with children, and bend down to speak with them at eye level.
- Infants get individual attention from teachers, who communicate with smiles and other nonverbal behavior, and also talk with them, so that infants start to recognize and understand words.
- Teachers provide a balance of group activities and one-on-one activities, to encourage children to develop both group and individual relationships.
- Children have opportunities to play and interact with other children, which helps them build friendships and develop social skills, such as working together and taking turns.
- Teachers and families develop relationships and share information about the children, including family background such as religion and home language.

## 7. Motivating Learning In Young Children

Young children learn from everything they do. They are naturally curious; they want to explore and discover. If their explorations bring pleasure or success, they will want to learn more. During these early years, children form attitudes about learning that will last a lifetime. Children who receive the right sort of support and encouragement during these years will be creative, adventurous learners throughout their lives. Children who do not receive this sort of support and interaction are likely to have a much different attitude about learning later in life.

## 8. Characteristics Of Motivation In Young Children

Children do many things simply because they want to do them. Selecting a toy or a shirt to wear is the result of "intrinsic motivation." The child makes her own choice and achieves satisfaction from both the act of choosing and from the opportunity to play with the toy or wear the shirt. Since the activity is generating the motivation, it is mostly self-sustaining for as long as the child wants to continue the activity. Children also engage in some activities because adults tell them to, or in an effort to please another party. These activities are "extrinsically motivated." When a child is extrinsically motivated, the reward comes from outside the child-it has to be provided by someone else, and has to be continually given for the child to remain motivated enough to continue the activity. It is more difficult for a child to sustain extrinsically motivated activity because of this reliance upon some outside force. Since intrinsically motivated activity is more rewarding in and of itself, children learn more from this sort of activity, and they retain that learning better. Intrinsically motivated children are more involved in their own learning and development. In other words, a child is more likely to learn and retain information when he is intrinsically motivated - when he believes he is pleasing himself. Parents can build on this sense of confidence by guiding their child's play and activities while still giving the child a range of options. This unstructured play is an essential element of the child's motivation, learning, and development.

A number of behavioral characteristics are indicators of high motivation. Here are some of the important factors and some ways to help your child develop these characteristics. Persistence is the ability to stay with a task for a reasonably long period of time. While very young children cannot concentrate on one activity for an hour, there are still

measurable differences in the length of time that young children will engage in an activity. A highly motivated child will stay involved for a long period of time, whereas an unmotivated child will give up very easily when not instantly successful. Children learn persistence when they are successful at a challenging task. The art in building persistence is in offering a task that is just challenging enough, but not overwhelming. Choice of challenge is another characteristic of motivation. Children who experience success in meeting one challenge will become motivated, welcoming another. These motivated learners will choose an activity that is slightly difficult for them, but provides an appropriate challenge. When they successfully complete such a task, children gain a high level of satisfaction. Unmotivated children (those who have not experienced early success) will pick something that is very easy and ensures an instant success. With such easy success, children feel only a very low level of satisfaction, because they know that the task offered little challenge. The challenge for parents is helping their child find an appropriate challenge while still allowing the choice to be the child's. The amount of dependency on adults is another indicator of motivation. Children with strong intrinsic motivation do not need an adult constantly watching and helping with activities. Children who have a lower level of motivation or are extrinsically motivated need constant attention from adults and cannot function independently. Since independence is an important aspect of quality learning, this dependence on adults will greatly limit children's ability to succeed in school. Parents can increase the likelihood of their child's building independent motivation by providing toys and activities that play to the child's natural creativity and curiosity. Often, these are the simplest, most basic playthings: blocks, little plastic "people," a toy car or two, and crayons and paper. These things encourage children to invent their own worlds rather than depending on an adult to entertain them. The last indicator of motivational level is emotion. Children who are clearly motivated will have a positive display of emotion. They are satisfied with their work and show more enjoyment in the activity. Children without appropriate motivation will appear quiet, sullen and bored. They will not take any apparent pleasure in their activity and will often complain. As a parent, you are probably the best judge of your child's moods. That cranky, whiny voice is usually a good indicator that a child doesn't feel very good about herself and needs a new adventure of some sort.

## 9. Developing Motivation

Newborn infants are born with a tremendous amount of intrinsic motivation. This motivation is aimed toward having some visible effect on the environment. When infants can actually see the results of their actions as a reward, they are motivated to continue those actions. These attempts toward control are limited within the young child, and include crying, vocalizations, facial expressions and small body movements. Toys that change or make sound as the child moves them are therefore strong motivators. As infants grow and continue to mature (9-24 months), more voluntary, purposeful movements are possible. This gives them more control of their environment. This wider range of control allows children to feel that they are successful. Success leads to higher self-esteem and feelings of self-worth, which leads to strengthened motivation. As children continue to develop during this time period, they are better able to make decisions and plan what to do to gain control of things around them. They are beginning to set their own goals for activities. This success is not based upon adult standards, but totally upon the child's ability to accomplish the goals that he has set out for himself.

By two years of age, children are developing the ability to execute a sequence of events in order to achieve a goal. They also have an appreciation for standards and begin to evaluate their efforts. By three years of age, children become interested in doing things well, as opposed to just doing them. They have an idea of various levels of competency in performance and judge their success by their own internal standards. Therefore they have much less need for adult feedback about the quality of their efforts. Preschoolers (age 3-5 years) are beginning to be more involved with verbal problem solving skills. They direct their own learning through speech and use vocal communication to direct their own behavior to solve problems. Young children are often heard talking themselves through a series of actions that lead to the solution of a problem. As children get older, this "talking out loud" will become an internal monologue. This newly developing ability to problem solve is the basis for motivation at this stage. Having the self confidence to know that one can solve a problem motivates the learner to accept other new and challenging situations, which in turn lead to greater learning

**Topic Objective:**

At the end of this topic student would be able to:

- Know the Research
- Explain the Attachment
- Describe the Baby colic
- Highlight the Day care
- Define the Staffing
- Analyze Head Start Program

### **Definition/Overview:**

The Early Childhood field is an exciting and rewarding profession. There is a great demand in the Northwest for qualified and dedicated Early Childhood Educators that can provide quality care and education for children from birth to school age. Over the last year, federal policy and the media have shown an increased interest in and focus on improving the literacy skills of children entering school. Professionals in the infant/toddler field know that parents and caregivers help to lay the necessary foundation for literacy in a child's first few years of life. In this series of tips, we focus on how leaders of infant/toddler programs can support the introduction and development of early literacy skills (both reading and writing).

### **Key Points:**

#### **1. Research**

In a recent article in the British Psychological Society's "The Psychologist" Gwyneth Doherty-Sneddon has considered in detail the theoretical bases behind the growth of this phenomenon and some of the claims made by its supporters. As Doherty-Sneddon points out so-called "baby signing" is not entirely new. Variants have been used by speech and language therapists for decades with children who have speech and/or cognitive impairments. It is widely recognised communication is at the heart of child development, be it cognitive, social, emotional or behavioural. Clinicians and researchers have highlighted the association between communicative difficulties and behavioural problems. For example, Paul and Kellog found children who were late talkers at age two years were more shy, aloof and less outgoing at age six. Similar poor social-emotional adjustment was found in late talking toddlers, along with higher reported parent-child dysfunction by mothers, in a study by Irwin et al. While baby signing promoters claim various benefits verified in experimental research, there is in fact a dearth of actual

research. The American team led by Acredolo and Goodwyn has been responsible for driving research into the effects of baby signing on child development. They claim babies readily acquire symbolic gestures when exposed to enhanced gesture training. They also propose those taught to sign reap rewards such as:

- larger expressive and receptive spoken language vocabularies;
- more advanced mental development;
- a reduction in problematic behaviours like tantrums resulting from frustration; and
- improved parentchild relationships

The mechanisms underlying these benefits are proposed to include:

- an increased number of episodes of joint visual attention during interactions between parents and toddlers, known to be associated with improved language skills;
- empowering of the infant to focus the topic and context of conversation;
- the discussion and clarification of concepts
- added practice with the symbolic function

Doherty-Sneddon claims a key issue is ensuring that sufficient and appropriately designed research is available to back the claims made in relation to baby signing. A literature review concluded although benefits were reported in 13 of 17 studies, various methodological weaknesses leave the evidence unconfirmed. Certainly, research into the effects of baby signing needs better control groups, such as children who are involved in equally interesting and fun activities based around adult and child language interaction but not baby signing. Volterra et al. conclude enhanced gesture input for hearing children is a catalyst for gesture acquisition, and especially the use of representational form and hence symbolic communicative function. They add this enhancement is short-lived (to between 12 and 15 months of age). Doherty-Sneddon argues, however, this timescale represents only a general norm. The enhancement and advantage is far more extended in the many toddlers who are not speaking until well after their second birthdays. Doherty-Sneddon concludes by arguing there are three different levels of support for the benefits of baby signing:

- indicative, if not evidentially strong, evidence from baby signing research;
- related evidence from deaf sign and hearing gesture/language research;

- compelling anecdotal support from families who have embraced the approach

## 2. Attachment

Attachment theory is primarily an evolutionary and ethological theory whereby the infant or child seeks proximity to a specified attachment figure in situations of alarm or distress, for the purpose of survival. The forming of attachments is considered to be the foundation of the infant/child's capacity to form and conduct relationships throughout life.

Attachment is not the same as love and/or affection although they often go together.

Attachment and attachment behaviors tend to develop between the age of 6 months and 3 years. Infants become attached to adults who are sensitive and responsive in social interactions with the infant, and who remain as consistent caregivers for some time.

Parental responses lead to the development of patterns of attachment which in turn lead to 'internal working models' which will guide the individual's feelings, thoughts, and expectations in later relationships. There are a number of attachment 'styles' namely 'secure', 'anxious-ambivalent', 'anxious-avoidant', (all 'organized') and 'disorganized', some of which are more problematic than others. A lack of attachment or a seriously disrupted capacity for attachment could potentially amount to serious disorders.

## 3. Baby colic

Baby colic (also known as infant colic, three-month colic, and infantile colic) is a condition in which an otherwise healthy baby cries or screams frequently and for extended periods without any discernible reason. The condition typically appears within the first three weeks of life and almost invariably disappears, often very suddenly, before the baby is three to four months old. It is more common in bottle-fed babies, but also occurs in breast-fed infants. The crying frequently occurs during a specific period of the day, often in the early evening. Since the cause is not conclusively established (see below) and the amount of crying differs between babies, there is no general consensus on the definition of "colic". Having ruled out other causes of crying, a common rule of

thumb is to consider a baby "colicky" if he or she cries intensely more than three days a week, for more than three hours, for more than three weeks in a month.

#### **4. Day care**

Day care or child care is care of a child during the day by a person other than the child's parents or legal guardians, typically someone outside the child's immediate family. The service is known as child care in the United Kingdom and Australia and day care in North America. Child care or day care is provided in nurseries or creches or by childminders caring for children in their own homes. Babysitting is the occasional temporary care of a child during the absence of his or her parents. Child care or day care is ongoing care during specific periods, such as the parents' time at work. Child care can also take on a more formal structure, with education, child development, discipline and even preschool falling into the fold of services. Some childminders care for children from several families at the same time, either in their own home or in a specialized child care facility. Some employers provide nursery provision for their employees at or near the place of employment. Child care in the child's own home is traditionally provided by a nanny or au pair, or by an extended family member including grandparents, aunts and uncles.

#### **5. Staffing**

For all providers, the largest expense is labour. In a 1999 Canadian survey of formal child care centres, labour accounts for 63% of costs and the industry had an average profit of 5.3%. Given the labour intensive nature of the industry, it is not surprising that the same survey showed little economies of scale between larger and smaller operators. Local legislation may regulate the operation of day care centres. The legislation will define what constitutes a day care (so as to not regulate individual baby sitters). It may specify the physical facilities (washroom, eating, sleeping, lighting levels, etc). The minimum window space may be such that it precludes day cares from being in a basement. It may specify the minimum floor space per child (for example 2.8 square metres) and the maximum number of children per room (for example 24). It may mandate minimum outdoor time (for example 2 hours for programs 6 hours or longer). It may mandate staffing ratios (for example 1:3 for under 18 months, 1:5 for 18-30 months, 1:8 for over 30 months, and even higher ratios for older children). Legislation may mandate qualifications of supervisors. Staff typically do not require any qualifications but staff

under the age of eighteen may require supervision. Typically, once the child reaches the age of twelve, they are no longer covered by day care legislation and programs for older children may not be regulated. In Canada, the workforce is predominantly female (95%) and low paid, averaging only 60% of average workforce wage. Many employees are at local minimum wage and are typically paid by the hour rather than salaried. In the United States, "child care worker" is the fifth most female-dominated occupation.

In non-profits, the title of the most senior supervisor is typically "executive director", following the convention of most non-profit organizations. There are often local industry associations that lobby governments on childcare policy, promote the industry to the public or help parents choose the right daycare provider. Staffing varies from state to state. It is important that parents read up on state regulations when visiting a day care. The Most Effective Child-Development Programs Work with Kids and Their Parents. Some scholars have questioned the research on Levenstein's program, and most other research has suggested more moderate benefits from home-visiting programs. But a mountain of evidence shows that combining parental support with high-quality child care offers the most powerful approach for erasing the school-readiness gap facing poor children.

- The Perry Preschool Program, pioneered in 1962 in Ypsilanti, Michigan, offered two years of high-quality preschool plus weekly home visits. The program's impact was so powerful that, at age 27, participating children's average earnings were almost twice that of a control group. Participants were three times as likely to own a home and only one-fifth as likely to have been arrested for repeat criminal offenses. All told, the program returned an estimated \$7.16 for every dollar invested when the kids were toddlers.
- The Carolina Abecedarian Project, begun in 1972 with a group of babies from poor families as young as 6 weeks old, provided five years of year-round, full-day child care, along with biweekly visits from a home-school resource teacher. Children who completed the project proved only half as likely as their peers to require special education by grade 9; they were one third more likely to graduate high school by age 19 and three times as likely to enroll in a four-year college by age 21. Participating mothers increased their own education during the project and were far more likely to hold good jobs.
- Houston Parent-Child Development Centers provided two years of support for Mexican American parents beginning when their children turned 1, offering home visits, parenting

classes, and nursery school. When the participating children reached elementary school, they were placed in bilingual education less than half as often as a control group, and they proved far less likely to be held back.

## 6. Head Start Program

These and other results led a National Academy of Sciences panel to conclude in 2000, "Programs that combine child focused educational activities with explicit attention to parent-child interaction patterns and relationship building appear to have the greatest impacts." The most important window for engaging parents comes during the infant and toddler years--before children even reach preschool. Historically, Head Start paid almost no attention to children under 3, but in 1994, Congress and the Clinton administration enacted the Early Head Start program to begin filling that void. But as is detailed elsewhere in this special report, the program will consume just 10 percent of the total Head Start budget. Likewise, whereas 46 states now operate pre-kindergarten programs and state funding for pre-K has skyrocketed from \$700 million in the early 1990s to more than \$2 billion today, only a few states have invested heavily in parent-focused services for 0- to 3-year-olds like Parents as Teachers, the Home Instructional Program for Preschool Youth, or the Parent-Child Home Program. Even including Early Head Start and projects funded by local governments and charities, parent-focused early-learning projects combined probably serve fewer than 150,000 children a year. That's a tiny fraction of the nearly 2 million children attending state-funded pre-K or traditional Head Start programs. That gap is crippling, suggests Harvard's Heather Weiss. "Not only is a lot of your vocabulary and language set by age 3," she says, "but your notions of what you can learn ... are also set in those first three years of life." Parenting practices, she adds, "play a critical role." A 2002 evaluation showed that Early Head Start children had better cognitive and language development and showed better behavior than a control group. Early Head Start programs offering both center-based care and home visits for parents consistently yielded the best results.

"All of the research shows we have the capacity to change life trajectories," says Jack Shonkoff, dean of the Heller School of Social Policy and Management at Brandeis University and co-editor of an influential National Academy of Sciences report on early-childhood development in 2000. "The strong science tells us that early-intervention programs that work with parents in addition to working with children themselves are

more effective than programs that work only with the children." The question is, when will policy-makers start paying attention? Head Start is a program of the United States Department of Health and Human Services that provides comprehensive education, health, nutrition, and parent involvement services to low-income children and their families. Created in 1965 by the Head Start Act, Head Start is the longest-running program to address systemic poverty in the United States. As of late 2005, more than 22 million pre-school aged children have participated in Head Start. The \$6.8+ billion dollar budget for 2005 provided services to more than 905,000 children, 57% of whom were four years old or older, and 43% three years old or younger. Services were provided by 1,604 different programs operating more than 48,000 classrooms scattered across every state (and nearly every county) at an average cost of \$7,222 per child. The staff consists of nearly 212,000 paid personnel in addition to six times as many volunteers.

- **Early Head Start:** Promotes healthy prenatal outcomes, promotes healthy family functioning, and strengthens the development of infants and toddlers beginning as young as newborn infants.
- **Head Start:** Helps to create healthy development in low-income children ages three to five. Programs offer a wide variety of services, that depend on a child's and each family's heritage and experience, to influence all aspects of a child's development and learning.
- **Migrant and Seasonal Program Branch:** Provides the children of migrant and seasonal farm workers who meet income and other eligibility guidelines with Head Start services
- **American Indian-Alaska Native Program Branch:** Provides American Indian and Alaska Native children and families with services such as: health care, educational, nutritional, socialization, as well as other services promoting school readiness. Services are primarily for disadvantaged preschool children, and infants and toddlers.

### Topic Objective:

At the end of this topic student would be able to:

- Analyze the Early educators and their influences on the curriculum
- Examine the Quality in Inclusive and Noninclusive Infant and Toddler Classrooms

- Explain An Ethological Perspective on Infant Development

### **Definition/Overview:**

The first decade of the twentieth century signaled the ascendance of the progressive reform movement in the United States, a social vision with a lasting impact on American politics, culture, and education. Americans were in an optimistic mood. The economy had shrugged off the depressions of the 1890s and had engaged in imperial expansion with the conquest of Hawaii and victory in the Spanish-American War. Theodore Roosevelt, who had become president upon the assassination of William McKinley, personified this optimism.

Progressive reformers aspired to broaden economic opportunities by imposing tougher government regulation of the railroads, oil companies, and public utilities, and they argued for political change to diminish the power of city machines such as that of New York's Boss Tweed. Journalists and social workers labored to remedy unsafe and unsanitary working conditions in the mines, mills, and slaughterhouses and led the fight to expand suffrage to women and to preserve the nation's natural resources. In its political and social embodiments, the progressive movement targeted the special privileges doled out by the government between the Civil War and the turn of the century. In other respects, it was a movement geared toward emancipation from entrenched and traditional ways of behaving and believing. At least three social dynamics help provide an explanatory context for events during this decade. One dynamic sought to preserve and maintain the power and prestige the United States had gained in the nineteenth century. A second hoped to gain efficiency, expansion, and then perhaps even equity, through a real or imagined scientific approach to life management and problem solving. The third aspired to expand freedom for the individual and the group, by rejecting traditional or sometimes prescribed ways of thinking in favor of more creative, if experimental, ways of expression, power sharing, and decision making.

### **Key Points:**

#### **1. Early educators and their influences on the curriculum**

The earliest of the five educationalists I am going to consider is Friedrich Froebel, who died more than a century ago yet still exerts an important influence upon early childhood education in this country. Although his pedagogy has long been considered sterile there is no doubt that Froebel pioneered a new approach to our understanding of childrens

activities and ways of learning, demonstrating that children need a vast number of experiences before they can arrive at an awareness of themselves and the world. The kindergartens, for him, were institutions where children instruct and educate themselves and where they develop and integrate all their abilities through play, which is creative activity and spontaneous instruction. That children learn through play is indeed a basic tenet of Froebelian philosophy and one which has been embraced by many early childhood educators. However, Froebel did not believe that the play of young children should be unstructured, as was the approach of many of his later followers. For him play was too important to be left to chance and in discussing the pedagogies of the kindergarten he wrote: just because he learns through play, a child learns willingly and learns much. So play, like learning and activity has its own definite period of time and it must not be left out of the elementary curriculum. The educator must not only guide the play, since it is so very important, but he must also often teach this sort of play in the first instance.

In order to help children learn through play Froebel devised a series of playthings and games. The six sets of playthings or gifts which Froebel designed formed a sequence beginning with a number of soft balls leading on to wooden spheres, cubes and cylinders. There were also occupations which trained children in activities such as drawing or modelling. The gifts and occupations were a fundamental part of Froebels doctrine of innate ideas but stripped of their symbolism they are the timeless playthings of childhood. Balls, boards, sand, clay, for example, have made up childrens play activities throughout the ages. The role of the adult was to plan and supervise these activities.

In the Froebelian kindergarten the gifts, occupations, singing games, stories and talk made up the curriculum in contrast to the stark infant schools of the time where the 3Rs occupied most of the daily routine. Our modern infant schools owe much to the influence of Froebel and most of the experiences which we offer children in present-day nurseries and reception classes have their roots in the occupations of the Froebelian kindergarten, although these have been extended and amended to meet the needs of children in the late 1990s. The idea of treating the school day as a complete unit in which activities continue for varying lengths of time to enable children to pursue their own interests is but another of the legacies which the modern primary schools have inherited from the Froebelian tradition. Friedrich Froebel was one of the great pioneers of early childhood education

and although his influence can still be seen throughout our primary schools, his writings are little read today by students, since his main work, *The Education of Man*, is not the lightest of reading.

## 2. Quality in Inclusive and Noninclusive Infant and Toddler Classrooms

Inclusive education continues to be recommended practice for very young children with disabilities as growing numbers of infants and toddlers with disabilities are included in child care classrooms each year. In the reauthorization of the Individuals With Disabilities Education Act (IDEA), now recognized as the Individuals With Disabilities Education Improvement Act (IDEIA), federal regulation requires that early interventions "to the maximum extent appropriate, are provided in natural environments, including the home, and community settings in which children without disabilities participate. The overall percentage of infants and toddlers receiving services under Part C of IDEA increased by 40 percent between 1994 and 2000, which highlights the fact that increasing numbers of young children with disabilities need specialized care and education in the United States. This rise in percentage indicates two different possibilities: there are either more young children being identified with disabilities who are in need of specialized services, or increasing numbers of families with young children with disabilities are availing themselves of these services. It is likely that the increase stems from a combination of the two factors.

Not surprisingly, because the most naturalistic setting for infants and toddlers in the United States is usually the home, between 1999 and 2000 most young children (68 percent) received services in their homes; in 2000, 14 percent of infants and toddlers received services in self-contained facilities serving only children with disabilities. It is important to note that this percentage represents half as many children as were served in this type of setting in 1995. That is, states are increasingly recognizing the importance of inclusive classroom environments for infants and toddlers who are enrolled in group settings. A small percentage (9 percent) of infants and toddlers with disabilities were provided with services in settings that also served typically developing children, including family child care homes, nursery schools, or preschools. Overall, for children with and without disabilities, there has been an increase in the number of infants and toddlers cared for in group settings. In 2000, nearly 40 percent of children under age 3 were cared for in center-based facilities. Although there has been relatively little research on children with

disabilities in group settings, there have been a number of studies investigating the quality of child care environments for typically developing infants and toddlers and the implications of this quality for young children's development. In general, the research indicates that the quality of infant and toddler classrooms is poor. For example, the Cost, Quality, and Child Outcomes Study reported that almost one-half of infants and toddlers were in classrooms that were poor quality, while only 14 percent were in classrooms considered to be developmentally appropriate. According to the authors of the Infant/Toddler Environment Rating Scale, the global measure of quality used in the study, poor-quality care is defined as care with problems in basic sanitary conditions, particularly in the area of diapering and feeding, as well as safety-related issues and a lack of positive and supportive relationships with adults. Often, poor-quality programs also lack the materials required for physical and intellectual growth.

Results from the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care indicated that 26 percent of the caregivers were not at all stimulating to the infants in their care. In addition, only 34 percent were highly positive and only 24 percent of infants were cared for by highly sensitive caregivers. This is of particular concern, since research suggests that the quality of infant care is correlated with measures of cognitive development, language development (Sequenced Inventory of Communication Development), and communication skills. Higher quality infant care was also found to be associated with higher cognitive, language, and communication skills over time for 89 African American children at 12, 24, and 36 months of age (except for expressive language at 12 months). Furthermore, a difference of 1 point on the Infant/Toddler Environment Rating Scale resulted in a 6-point difference on the Mental Development Index (MDI), 1.0 months on the measure of receptive communication, 1.34 months on the measure of expressive communication, and 3 points on the Communication and Symbolic Behavior Scales. Children in low-quality infant care also score lower on standardized developmental measures in middle childhood. Overall, the level of quality in infant and toddler programs has not been strong in the United States, leading to unfortunate consequences for young children's development.

### **3. An Ethological Perspective on Infant Development**

According to the basic hypothesis of human ethology, human behavior can only be fundamentally understood by taking into account its phylogenetic origin. As this is a

biological hypothesis, human ethology can be defined as the biology of human behavior. The aims of research are, on the one hand, the investigations of the physiological mechanisms underlying behavior: the explanation of proximate causes of behavior patterns. On the other hand, the questions of how and why specific behavioral patterns evolved are investigated; that is, the discovery of the selection pressures to which behavior patterns owe their existence and the discovery of their functions, the ultimate causes of behavior, are the goals of human ethological research. Beside phylogenetic adaptations to the inanimate, and beside the animate environment adaptations via learning, individual experience and cultural tradition are at work. The influence of culture on human beings is, of course, great, and we are indeed "by nature, creatures of culture". But one must not overlook that we are also creatures of nature; our behaviour is determined by our biology. Only if nature and culture are seen as two incompatible opposites, one is forced to think of only one or the other. Human ethology, in its thinking and in its research, has overcome this polarity. Eibl-Eibesfeldt described this kind of thinking in human ethology. We have inborn predispositions, but we are not fated to them, even when they point us in a certain direction. We carry our preprogrammed preferences and needs into our world of culture, which is influenced and altered by them.

As the working hypothesis is of phylogenetic perspectives, human ethology makes use of the methods developed in animal ethology, adapting them to human conditions. Methodological techniques are also utilized from related disciplines like psychology, anthropology, and sociology. The most important methodological methods are behavior observation in the natural context and the comparisons of findings, which are also fundamental tools in biology. We compare behavior patterns to establish similarities and differences between people from diverse cultures, between people with sensory deficiencies (blind, deaf and blind) and healthy people, and between free-living higher animals and human beings. However, the comparison of different cultures is our main source of information. Recently, this method has also been viewed as relevant by developmental psychologists. This method is especially informative when dealing with cultures living in different ecological habitats with diverse economic and sociocultural prerequisites. When comparing such highly differing circumstances, behavior patterns can be observed that are rather similar and have similar consequences, as we see in mimic expressions or in giving and taking of objects. The probability is high that such behavior patterns are of phylogenetic origin and have phylogenetic adaptations. In such cases we

speak of universals in human behavior. With participant observation, filming, and interviews, human ethology documents the behavior and mental world of cultures. The human ethological film archive of the Max Planck Society contains films of unstaged social behavior of cultures from all over the world. Thus, we are able to compare, for example, mother--child interaction in Yanomami Indians from South America with the corresponding behavior of Trobriand Islanders from the South Seas, and with that of the Kalahari Bushmen and other very primordial cultures. Together with the knowledge of our own behavior in our industrialized culture, we get a more complete picture of humans in general, and we see which traits are universally laid down in human behavior. This approach of human ethology draws practically and theoretically on the work of Eibl-Eibesfeldt and his recent synthesis of some 20 years of research.

Ethologists, as well as some developmental psychologists or psychoanalysts, allot great importance to early childhood experiences. Thus it seems extremely important to be familiar with the inborn prerequisites that have an influence during early ontogeny, in order both to satisfy infants' needs and to not disturb their normal development. I want to emphasize here the sometimes bad effect of interference, because we as homo faber often only see the positive side of our influence and overlook the possible destructiveness. Watching experts in their contact with infants, one has sometimes the impression that they see a newborn baby as a very imperfect construction of an organism absolutely dependent on an improving external intervention. That a newborn baby has already, through evolution, acquired everything needed to survive successfully, is often overlooked. The newborn baby comes into the world equipped with natural abilities to survive. The order of importance of the infant's needs very often seems to be missed: In the first place there is the permanent proximity and availability of the caretaker, normally the mother. The importance of the mother can be seen equally in nonindustrialized and industrialized societies as well as in monkeys and apes. Confidence in the natural abilities of human beings is not very great in our technical world, but it could be strengthened by the comparison with people of tribal societies. I do not want to propagate a simple transmission of behavior patterns from one society to another, but in order to understand social connections it helps us to look further than the limits of our own culture. Everywhere we see the unity between the infant and caretaker, an interaction to which both partners bring inborn competencies. It seems useful in this connection to visualize a feedback system, for example. Biological connections are usually of this kind; if we

change something in one place, it is bound to affect the whole system. We should be especially careful in such cases where many parts of the feedback system are not known. As a fundamental social being, the infant is bound from birth onward into a feedback system with the mother--a complex system which is not yet fully understood. As an example of intervention into a supposed feedback system, I cite the frequent diagnosis of neonate jaundice. To cure this jaundice, the babies are placed in light beds and their eyes are closed for days with an eye bandage that is not even removed when the babies are with their mothers for nursing. The belief that in most of these cases such a physiological jaundice would disappear of its own accord should be strengthened. In addition, one should investigate the possible connections of high levels of bilirubin to medications given to the mother earlier, so that jaundice can be stopped at an earlier stage. In any case, one should take steps other than isolating the babies from their mothers in the light beds and depriving them of their sight. From birth onward the infant is keen on experiencing its mother as the vital caretaker through all senses, including the eyes. Babies will relate to their mothers with all their senses. Infants can, of course, get over the optical deprivation due to their plasticity. But to date we have no knowledge of the outcome in relation to the systemic relationship with the mother, and we cannot say decidedly that the isolation in the lightbed and the optical deprivation will be meaningless. A central concept of ethology and thus of human ethology is, as mentioned earlier, adaptation. The infant adapts to the demands of early life in ontogeny. If such adaptation processes would not have developed during phylogeny, the chances for the survival of Homo sapiens would not have been large. Behavior of the mother and infant adapts to one another. Without the mother the infant used to be in danger of dying--in our technical world this is no longer the case, at least not in the sense of bodily survival. But nonetheless, the needs of infants are aimed toward a special caretaking person, especially emotional needs. We should take the astounding reciprocal adaptation of mother and infant much more into account

In Section 3 of this course you will cover these topics:

- A Developmental Model For Preschool Programs
- Preschool Curriculum: Ages 3 To 5: Language And Cognitive Development
- Preschool Curriculum: Ages 3 To 5: Social And Physical Development

**Topic Objective:**

At the end of this topic student would be able to:

- Understand the Application Of A Developmental Model
- Examine the Past, Present, and Future of early development
- Analyze the Teaching Practices In The High/Scope Preschool Curriculum
- Highlight the Assessment

**Definition/Overview:**

By recommended practice and explicit regulation, early educational services for young children with developmental delays and disabilities involve teams of individuals, including children's families and professionals from various disciplines. Those teams are responsible for developing, implementing, monitoring, adjusting, and evaluating an individualized plan of services for each child. Teams are needed because of the complexity of development, the multiplicity of effects of different disabilities on children's development, and the variety of concerns and priorities expressed by families. Although researchers have proposed three major structures of teams, including multidisciplinary, interdisciplinary, and transdisciplinary arrangements, pure examples of each type are less apparent in practice. In practice, many programs use a three-tier system of teams: (a) a core team of a few members who interact frequently with families, (b) a second layer of individuals who serve adjunct or consultant roles to families or other team members, and (c) a third layer of individuals with less frequent contact with families and other team members. The size of teams and the roles of members often vary, depending on the structure of the program (e.g., home-, clinic-, or center-based programs), the needs of children, the concerns of families, and possibly program organization and philosophy. The actual benefits of teams, however, depend on many factors, such as the amount of relevant training, the extent to which members participate in team activities, the manner in which members make decisions and implement them, and the nature of team leadership.

Odom and McEvoy have identified the lack of access to related services (i.e., not having needed team members) as a barrier to preschool integration. Despite the potential benefits of preschool integration, lack of related services could jeopardize the quality of experiences young children with developmental delays and disabilities receive from enrollment in programs designed for children with typical development. However, little information exists about the extent to which members from various disciplines are available to general early education programs that enroll children with disabilities. The purposes of this study were to identify the extent to which general early education programs employ representatives from various disciplines and to describe the nature and patterns of that employment across program types.

### **Key Points:**

#### **1. Application Of A Developmental Model**

By definition development is characterized by changes in behavior. In the first few years of life these changes occur at a rapid pace. Developmental changes in problem behaviors also occur. For example, behavior that is conceptualized as difficult in infancy may include problems with sleeping habits, constant crying, or not being easily comforted. Difficult behavior in a toddler is usually broadened to include chronic noncompliance, aggression, and temper tantrums. By school entry, problem behaviors are often described in terms of internalizing or externalizing problems. It is possible that the underlying problem is the same across these developmental periods, and that as a result of physical and cognitive changes and changing parental demands, the child's behavioral repertoire expands and new problem behaviors emerge. Thus, the constant crying in infancy, the temper tantrums in toddlerhood, and the internalizing problems of the school-age child may all be manifestations of the same underlying disorder or dysregulation. Studies of continuity and discontinuity of child problem behavior, therefore, must accommodate the changing nature of child behavior. One approach to capturing the dynamic quality of child behavior is to assume that developmental changes yield variations in behavioral patterns over time, and that in order to demonstrate continuity, developmental models must allow for the effects of maturation.

Relatively few studies have investigated the continuity of problem behavior during early childhood. The lack of research may in part be due to the notion that temper tantrums,

noncompliance, and aggression are normative behaviors in toddlers, hence the naming of this developmental period as "the terrible twos." Studies of children and adolescents, however, have demonstrated that some problem behaviors such as aggression or behavioral inhibition are moderately stable behavioral patterns. Results from retrospective studies of children and adolescents have shown that the age of onset of disruptive behavior problems is often in the preschool period. For example, Applegate and colleagues reported that, among clinically referred children, the average age of onset of attention deficit hyperactivity disorder (ADHD) was approximately 5 years. In a community-based sample, the median age of onset for boys and girls who met criteria for conduct disorder was 6.5. Thus, it appears that the behavior problems of children and adolescents are often long-standing. Moreover, intervention efforts aimed at treating conduct problems and antisocial behavior in children and adolescents have not been highly effective, particularly with families who are faced with economic and social disadvantages. For these reasons several developmental psychopathologists have extended the window of assessment to infancy and toddlerhood, with the aim of examining the continuity of young children's behavioral and emotional problems, and in the hope of identifying early markers for psychopathology. The present study shares those goals.

Because the present longitudinal study includes distinct developmental periods (i.e., infancy, toddlerhood, and preschool), the assessment of child contributors to later problem behavior needed to be equally comprehensive and developmentally appropriate. Several measures of problematic child behavior were used across this time span including maternal reports of difficult temperament, observations of noncompliance and aggression, and maternal reports of externalizing and internalizing problems.

- **Difficult temperament.** In several epidemiologic studies, difficult temperament measured in the first years of life was predictive to later ratings of temperamental difficultness. For example, Earls and Jung reported that in comparison to environmental factors such as maternal depression, marital discord and number of life events, temperament measured at age 2 was a more powerful predictor of temperamental problems at age 3. Other investigators have suggested that difficult temperament may serve to elicit negative responses from the caregiving environment, creating a negative parent-child relationship, and leading to child problem behavior. It is not clear, however, whether temperament ratings in infancy are

predictive of later behavioral and emotional problems. It is possible that "difficult temperament" may be a general marker for the development of later problems, and that the interaction of individual differences and environmental influences affects whether a child with a difficult temperament will develop externalizing problems, internalizing problems or both.

- **Noncompliance.** Several studies have demonstrated that oppositional-defiant disorder is a primary precursor to antisocial behavior in school age children and adolescents. In preschoolers the relationship between noncompliance and later problem behavior is not clear. While noncompliance tends to emerge with aggression in the toddler period, it is generally considered an adaptive form of autonomous behavior that accompanies the child's increasing awareness of self and other. Chronic noncompliance, however, is likely not to be adaptive and may result in negative parent-child interactions. To our knowledge, with the exception of the present study, there are no other investigations that have systematically measured noncompliance in the toddler period as a risk factor for later problem behavior.

## 2. Past, Present, and Future of early development

The movement to universalize preschool education is not new. Americans have been attempting to get public support for educating our youngest children for more than 150 years. Why has it taken so long? What are the obstacles? And what do past successes suggest about promising strategies for the future? In 1830, a petition to formally incorporate "infant schools" into the Boston Public Schools was rejected by the Primary School Committee. Opposing it, primary-school teachers said infant-school graduates were difficult to manage, while a mental-health specialist and child-rearing advice-givers argued that excessive early stimulation was damaging to children. Proponents, the women of the Infant School Society of Boston, complained that men had been insufficiently supportive of their plan. Despite this setback, as historian Maris Vinovskis documents, many 3 and 4-year-olds in Massachusetts were attending public schools until the mid-19th century, toddling along after their older siblings, if teachers didn't protest. Their numbers declined as urban schools became more age-graded and academically standardized, and as ideology about the role of mothers and the sanctity of the private family became widespread.

When Elizabeth Peabody started the nation's first English-speaking public kindergarten in Boston in 1860, she overcame resistance by emphasizing that German kindergarten

founder Friedrich Froebel's felicitous sounding "children's garden" was an appropriate place for young children, not a school. The effort lasted only a year, however, because the superintendent thought it too costly. Nearly 30 years later, the Boston Public Schools incorporated privately funded "charity" kindergartens. But as with most urban kindergartens, they were seen primarily as programs for the children of the poor. With the goal of bringing public kindergartens to "all the nation's children," Bessie Locke founded the National Kindergarten Association (NKA) in New York City in 1909. Not a professional educator, Locke avoided the internecine conflicts within the kindergarten movement and enlisted prominent businessmen, college presidents, and education reformers like John Dewey. Taking its case to Washington, the NKA persuaded the commissioner of education to let the organization establish and fund a Kindergarten Bureau within the U.S. Bureau of Education. But when Locke's attempts to get a kindergarten bill through Congress failed, she refocused her efforts at the state level, rallying local parent-teacher organizations, church groups, and governor's wives, and waging media campaigns. Money was always an obstacle, especially in rural areas and in the South, as were state and local politics. In spite of these difficulties, Locke's efforts over four decades contributed to a 300-percent increase in the number of children nationwide attending public and private kindergartens.

It took national emergencies to spur federal action for younger children. The Works Progress Administration sponsored Emergency Nursery Schools for 3- and 4-year-olds during the Depression, primarily as a job program for adults. Psychologists and nursery educators hoped that the public schools, where many of the programs were located, would adopt them. But as in Boston a century earlier, few public-school systems were hospitable to the idea. With the onset of World War II, new federal money was available for Children's Centers, some of which were open around the clock to care for Rosie the Riveter's kids. Once again, preschool educators hoped the programs would become permanent, but President Truman cut funding six months after the war ended. Another perceived national emergency, the war on poverty, and new psychological research on the benefits of early education led to the founding of Head Start in 1965. As former Director Ed Zigler recounts, Head Start survived inflated expectations about raising IQ scores and resistance from some southern states over integration to become an iconic community-action program. Championed by Marian Wright Edelman of the Children's Defense Fund and Massachusetts Senator Ted Kennedy, Head Start benefited from large budget

increases during the Clinton administration; even so, there are long waiting lists at many centers.

The closest the United States has come to getting a federal commitment to universal preschool education was Walter Mondale and John Brademas' Comprehensive Child Development Act of 1971, which passed both houses of Congress with support from a coalition of psychologists, liberal politicians, and child-advocacy groups. But President Nixon vetoed the bill on ideological grounds, raising the specter of the "Sovietization" of the private family. As in the past, cost was a stumbling block. Despite this frustrating record of fits and starts, evidence of the developmental benefits and cost-effectiveness of quality preschool education still mounts. And advocates have continued to press for change--most successfully at the state and local levels, where most policy experts agree the impetus for universal preschool education must come, with hopes for increased federal funding.

States have experienced varying levels of success. As of 2002, 40 states had some manner of publicly funded preschool programs, most targeted at children from low-income families but many inching toward universal models. In fact, there has been a 17-percent increase in children attending pre-K nationwide since 2001, according to a 2004 study by the Trust for Early Education, a preschool advocacy group. Georgia, Oklahoma, and Florida have been at the vanguard. As David Kirp details on page A5, each of these states has pursued the goal of high quality early education using different strategies. A decade ago, then-Governor Zell Miller launched Georgia's Voluntary Universal Pre-K initiative; by 1998, it was funding preschool for more than half of the state's 4-year olds. Oklahoma now offers preschool in public schools through the state education budget, thanks largely to bipartisan support and strong gubernatorial leadership. And in Florida, a unique citizens' initiative achieved passage in 2002 of a constitutional amendment requiring high quality pre-K for every 4-year-old. That guarantee was soon eviscerated in the Florida Legislature, however, leading Governor Jeb Bush to veto the initiative--a move supported by the original proponents. (The Legislature is being reconvened to address the quality mandate.) Meanwhile, in a different model, court involvement in a school-finance lawsuit has mandated preschool education in underfunded districts in New Jersey. A survey of state and local reform efforts to date, suggests that individual policy entrepreneurs," to use political scientist John Kingdon's term, play very important roles in agitating for

progress on the pre school front. In New Mexico, for example, Fred Nathan's small, "results-oriented think tank" was the force behind getting full-day kindergartens, as Anthony Raden has documented. In Florida, the passionate advocacy of former Miami Herald Publisher David Lawrence Jr. and Miami-Dade Mayor Alex Penelas has been enormously effective.

And in Massachusetts, Margaret Blood's Early Education for All campaign won commitment from the state Legislature in June for a universal preschool plan (to be phased in over 10 years). It envisions an independent early-education agency, quality controls, teacher development, and more. With high-profile media support, backing from the business community, and relentless lobbying, Blood hopes to hold the Massachusetts Legislature to its commitment. But this will require a sustainable, privately funded, independent organization--like a state-level NKA. And much depends on Blood, whose willingness to devote long hours to the goal resembles Locke's commitment to public kindergartens, and on the strong coalition Blood has assembled. Some cities, too, have been successful at promoting public preschools. Begun in 1967 with federal funding, Chicago's two dozen Child Parent Centers, located in inner-city neighborhoods, are run by the Chicago Public Schools. As in Oklahoma, the teachers have college degrees and early-childhood-education credentials. Importantly, the Chicago Child-Parent Centers are part of a seamless continuum, from preschool through third grade, which provides coordination and continuity that is of great value to students and their families. And in the Boston Public Schools, the Lee Academy, a new public pilot school focusing on early literacy for 3-year-olds through third-graders, has just opened, pushed by teacher Jennifer Friedman and Harvard's Richard Weissbourd. Still, opposition, concerns, and problems remain. Harking back to Richard Nixon's ideological stance, libertarian Darcie Ann Olsen of the Goldwater Institute opposes universal preschool education as an intrusion of the "nanny state" into the private family. Moreover, concerns continue to be voiced about the effects of stress and poor-quality programs on young children. Psychologist David Elkind worries about the "hurried," "miseducated" preschool child. Perhaps fueling these fears, the federal No Child Left Behind Act is putting pressure on preschools to become more academic and to institute testing for even the youngest children. Finally, limited funding and the low status of preschool teaching as a "women's" occupation will always be problematic. Here, economists, psychologists, and other researchers, along with college and university presidents, professors, and educators, have important roles to play in

documenting the cost effectiveness of universal preschool education and providing better preparation for preschool teachers.

### 3. Teaching Practices In The High/Scope Preschool Curriculum

In the High/Scope approach teachers and children are active partners in the learning process. This balanced approach to adult-child interaction also called "intentional teaching" is critical to the effectiveness of the program. It includes techniques for encouraging learning in specific content areas as well as strategies for helping children resolve conflict.

- **Classroom arrangement, materials, and equipment:** The space and materials in a High/Scope setting are carefully arranged to promote active learning. The center is divided into interest areas organized around specific kinds of play; for example, block area, house area, small toy area, book area, sand-and-water area, and art area.
- **Daily routine.** High/Scope teachers give preschoolers a sense of control over the events of the day by planning a consistent daily routine that enables the children to anticipate what happens next. Central elements of the preschool daily routine include the plan-do-review sequence, small- and large-group times, greeting time, and outside time.
- **Key developmental indicators.** The curriculum is built around teacher- and child-initiated learning activities in five main curriculum content areas: approaches to learning; language, literacy, & communication; social and emotional development; physical development, health, and well-being; and arts and sciences. Within these areas are 58 key developmental indicators (formerly called "key experiences") observable early childhood milestones that guide teachers as they plan learning experiences and interact with children.

### 4. Assessment

Developmentally oriented instruments for assessing child progress and program quality. The Preschool COR (Child Observation Record) is used to evaluate child progress in High/Scope Preschool Programs. In addition, High/Scope's Preschool Program Quality Assessment (PQA) offers a powerful tool for evaluating program quality in seven key areas: learning environment, daily routine, adult-child interaction, curriculum planning and assessment, parent involvement and family services, staff qualifications and staff

development, and program management. Use the links at left or above to visit our assessment section and learn more about these instruments

### **Topic Objective:**

At the end of this topic student would be able to:

- Describe the Cognitive Development: Language Development
- Define Piaget Theory
- Explain Challenges to Piagetian stage theory
- Elaborate Mechanisms of language development

### **Definition/Overview:**

This topic presents an overview of the development of intellectual abilities. Children are not little adults. Until they reach the age of 15 or so they are not capable of reasoning as an adult. The following information is based on the work of Jean Piaget. He was not a psychologist. He was a developmental biologist who devoted his life to closely observing and recording the intellectual abilities of infants, children and adolescents.

### **Key Points:**

#### **1. Cognitive Development: Language Development**

During early childhood, children's abilities to understand, to process, and to produce language also flourish in an amazing way. Young children experience a language explosion between the ages of 3 and 6. At age 3, their spoken vocabularies consist of roughly 900 words. By age 6, spoken vocabularies expand dramatically to anywhere between 8,000 and 14,000 words. During infancy and toddlerhood, young children are almost always able to understand far many more words than they can speak. However, with this language explosion, their expressive (spoken language) abilities start to catch up with their receptive (ability to comprehend language) skills. As children move beyond using two word sentences, they start to learn and understand grammar rules. All English-

speaking children follow a regular sequence when using these rules. For example, children first begin using simple plurals (cats) and possessive forms of nouns (Daddy's car). Then, they put appropriate endings on verbs (jump becomes jumped), use prepositions ("in the street"), articles ("the", "a", or "an"), various forms of the verb to be ("is", "are", "were", etc.), and so on.

In part, the explosion in expressive skills occurs because of the gains in attention and memory described above. Children become increasingly skilled at remembering and practicing the language modeled around them, as well as modifying word use based on other people's reactions. These skills can result in very embarrassing situations for parents, such as when Johnny repeats a swear word or undesirable comment at Sunday dinner at Grandma's that he heard from Dad Friday night. Caregivers should be especially careful not to encourage poor language choices, such as incorrect grammar or swear words, by laughing or making a game of them. Children may view this attention as approval and will often continue to use that word or phrase to obtain more attention in the future. For more information on encouraging appropriate language, see the discipline and guidance section in the Preoperational Stage Parenting. Beyond growing their vocabularies, young children start to expand their ability to use different forms of words (e.g., irregular verbs such as "She brought" instead of "She brang") and form more complex sentences. Between the ages of 2 and 5, children also refine their ability to pronounce words. However, they often make up words that they don't know and need. In contrast, school-age children start to speak more like adults; they can recognize basic grammar errors, put thoughts into question form, and begin including negative expressions such as "not coming" into their sentences. As they get older, children's use of language also becomes more mature and complicated. For example, children start to understand the use of basic metaphors based on very concrete ideas, such as the saying "hard as a rock". They also begin to tailor their speech to the social situation; for example, children will talk more maturely to adults than to same-age peers.

## 2. Piaget Theory

His theory provided many central concepts in the field of developmental psychology and concerned the growth of intelligence, which for Piaget, meant the ability to more accurately represent the world, and perform logical operations on representations of concepts grounded in the world. The theory concerns the emergence and acquisition of

schemata - schemes of how one perceives the world - in "developmental stages", times when children are acquiring new ways of mentally representing information. The theory is considered "constructivist", meaning that, unlike nativist theories (which describe cognitive development as the unfolding of innate knowledge and abilities) or empiricist theories (which describe cognitive development as the gradual acquisition of knowledge through experience), it asserts that we construct our cognitive abilities through self-motivated action in the world.

- **Developmental psychology:** Developmental psychology is the scientific study of progressive psychological changes that occur in human beings as they age.
- **Instructional design:** Instructional design, also known as instructional systems design, is the analysis of learning needs and systematic development of children.
- **Erikson's stages of psychosocial development:** Erikson's stages of psychosocial development describes eight developmental stages through which a healthily developing human should pass from infancy to 8 years.
- **Kohlberg's stages of moral development:** Kohlberg's stages of moral development were conceived by Lawrence Kohlberg to explain the development of moral reasoning.

### 3. Challenges to Piagetian stage theory

Piagetian accounts of development have been challenged on several grounds. First, as Piaget himself noted, development does not always progress in the smooth manner his theory seems to predict. 'Decalage', or unpredicted gaps in the developmental progression, suggest that the stage model is at best a useful approximation. More broadly, Piaget's theory is 'domain general', predicting that cognitive maturation occurs concurrently across different domains of knowledge (such as mathematics, logic, understanding of physics, of language, etc). However, more recent cognitive developmentalists have been much influenced by trends in cognitive science away from domain generality and towards domain specificity or modularity of mind, under which different cognitive faculties may be largely independent of one another and thus develop according to quite different time-tables. In this vein, many current cognitive developmentalists argue that rather than being domain general learners, children come equipped with domain specific theories, sometimes referred to as 'core knowledge', which allows them to break into learning within that domain. For example, even young infants appear to understand some basic principles of physics (e.g. that one object cannot pass through another) and human

intention (e.g. that a hand repeatedly reaching for an object has that object, not just a particular path of motion, as its goal). These basic assumptions may be the building block out of which more elaborate knowledge is constructed. Additionally, some psychologists, such as Vygotsky and Bruner, thought differently from Piaget, suggesting that language was more important than Piaget implied. Recently Piaget's theory has been falling out of favour for a new theory called Ecological Systems Theory. This is based on the contextual influences in the child's life like his/her immediate family, school, society and the world, and how these impact the child's development.

#### **4. Mechanisms of language development**

Although the role of adult discourse is important in facilitating the child's learning, there is considerable disagreement amongst theorists about the extent to which children's early meanings and expressive words arises directly from adult input as opposed to intrinsic factors relating to the child's cognitive functions. Findings about the initial mapping of new words, the ability to decontextualise words and refine meaning are diverse. One hypothesis is known as the syntactic bootstrapping hypothesis, referring to the child's ability to infer meaning from cues, using grammatical information from the structure of sentences. Another is the multi-route model in which it is argued that context-bound words and referential words follow different routes; the first being mapped onto event representations and the latter onto mental representations. In this model, although parental input has a critical role, children rely on cognitive processing to establish subsequent use of words. However, naturalistic research on language development has indicated that preschoolers' vocabularies are strongly associated with the number of words addressed to them by adults.

There is as yet no single accepted theory of language acquisition. Current explanations vary in emphasis from learning theory, with its emphasis on reinforcement and imitation (Skinner), to biological, nativist theories, with innate underlying mechanisms (Chomsky and Pinker), to a more interactive approach within a social context (Piaget and Tomasello). Behaviorists argue that given the universal presence of a physical environment and, usually, a social environment, any theory of language must account for the effects of the contingent relations of these on an individual's development of language

behaviour. Pinker argues that complex language is universal and has an innate basis. Pinker's argument is partly based on the development of creole languages from pidgins. The children of parents who communicate, without grammatical structures, in pidgin, develop a creole language of their own accord, complete with standardised word orders, markers for present, future and past tenses and subordinate clauses. There is some support for this from the development of sign language amongst deaf children thrown together at a young age in special schools in Nicaragua who spontaneously developed a pidgin which was then developed into a creole by a younger generation of children coming into the schools

**Topic Objective:**

At the end of this topic student would be able to:

- Know what develops in Social Development?
- Examine the Speed and pattern of development
- Explain the Mechanisms of social and emotional development
- Analyze the Individual differences
- Describe the Population differences
- Define the Social development
- Highlight the Education
- Elaborate the Social Sport

**Definition/Overview:**

Newborn infants do not seem to experience fear or have preferences for contact with any specific people. By about 8-10 months, they go through a fairly rapid change and become fearful of perceived threats; they also begin to prefer familiar people and show anxiety and distress when separated from them or approached by strangers. The capacity for empathy and the understanding of social rules begin in the preschool period and continue to develop into adulthood. Middle childhood is characterized by friendships with age-mates, and adolescence

by emotions connected with sexuality and the beginnings of romantic love. Anger seems most intense during the toddler and early preschool period and during adolescence.

### **Key Points:**

#### **1. What develops in Social Development?**

Newborn infants do not seem to experience fear or have preferences for contact with any specific people. By about 8-10 months, they go through a fairly rapid change and become fearful of perceived threats; they also begin to prefer familiar people and show anxiety and distress when separated from them or approached by strangers. The capacity for empathy and the understanding of social rules begin in the preschool period and continue to develop into adulthood. Middle childhood is characterized by friendships with age-mates, and adolescence by emotions connected with sexuality and the beginnings of romantic love. Anger seems most intense during the toddler and early preschool period and during adolescence.

#### **2. Speed and pattern of development**

Some aspects of social-emotional development, like empathy, develop gradually, but others, like fearfulness, seem to involve a rather sudden reorganization of the child's experience of emotion. Sexual and romantic emotions develop in connection with physical maturation.

#### **3. Mechanisms of social and emotional development**

Genetic factors appear to regulate some social-emotional developments that occur at predictable ages, such as fearfulness, and attachment to familiar people. Experience plays a role in determining which people are familiar, which social rules are obeyed, and how anger is expressed.

#### **4. Individual differences**

Individual differences in the sequence of social-emotional development are unusual, but the intensity or expressiveness of emotions can vary greatly from one normal child to another. Individual tendencies to various types of reactivity are probably constitutional,

and they are referred to as temperamental differences. Atypical development of social-emotional characteristics may be mildly unusual, or may be so extreme as to indicate mental illness. Temperamental traits are thought to be stable and enduring throughout the life span. Children who are active and angry as infants can be expected to be active and angry as older children, adolescents and adults.

## 5. Population differences

Population differences may occur in older children, if, for example they have learned that it is appropriate for boys to express emotion or behave differently than girls, or if customs learned by children of one ethnic group are different from those learned in another. Social and emotional differences between boys and girls of a given age may also be associated with differences in the timing of puberty characteristic of the two sexes.

## 6. Social development

- Outgoing; friendly; overly enthusiastic at times
- Moods change rapidly and unpredictably; laughing one minute, crying the next; may throw tantrum over minor frustrations (a block structure that will not balance); sulk over being left out
- Imaginary playmates or companions are common; holds conversations and shares strong emotions with this invisible friend
- Boasts, exaggerates, and "bends" the truth with made-up stories or claims of boldness; tests the limits with "bathroom" talk
- Cooperates with others; participates in group activities
- Shows pride in accomplishments; seeks frequent adult approval
- Often appears selfish; not always able to take turns or to understand taking turns under some conditions; tattles on other children
- Insists on trying to do things independently, but may get so frustrated as to verge on tantrums when problems arise: paint that drips, paper airplane that will not fold right
- Enjoys role-playing and make-believe activities
- Relies (most of the time) on verbal rather than Physical aggression; may yell angrily rather than hit to make a point; threatens: "You can't come to my birthday party"
- Name-calling and taunting are often used as ways of excluding other children
- Establishes close relationships with playmates; beginning to have "best" friends

## 7. Education

One of the most powerful means of propagating and sustaining new developments is the system of education available in a society. Education is the means for organized transmission of society's collective knowledge to each next generation by the previous generation. It equips each new generation to face the opportunities and challenges of the future with the knowledge gathered from the past. It shows the young generation the opportunities that lie ahead for them and thereby raises their aspiration to achieve more. The information imparted by education raises youths level of expectations as well as their aspirations for higher income. It also equips them with the mental capacity to devise ways and means to improve productivity and enhance living standards. We can conceive of society as a complex fabric consisting of interrelated activities, systems and organizations. Development occurs when this complex fabric improves its own organization. That organizational improvement can take place simultaneously in several dimensions.

Quantitative expansion in the volume of social activities. Qualitative expansion in the content of all those elements that make up the social fabric. Geographic extension of the social fabric to bring more of the population under the cover of that fabric. Integration of existing and new organizations so that the social fabric functions more efficiently. Such organizational innovations occur all the time as a continuous process. New organizations emerge whenever a new developmental stage is reached and old organizations get modified to suit the new developmental requirements. The impact of these new organizations may be so powerful as to lead the people to believe that these new organizations are powerful in their own right. Actually it is society that throws up the new organizations required to achieve its objectives. The direction that the developmental process takes is very much influenced by the awareness of the population as to what are the opportunities available in the society. Increasing awareness leads to greater aspiration which in turn releases greater energy that helps bring about greater accomplishment.

## 8. Social Sport

When we speak of development and sport, it is primarily about the individual's development. Sports can be introduced, often at low cost, as a means of child development in schools and slums to promote integration and fight poverty. Sharing rules

and games, as well as teamwork, aim at different objectives according to the social and economic environment. However, sport can contribute to many forms of social, economic and human development. Through public-private partnerships focusing on sport-based development programmes, it is possible to train and teach young people essential skills and encourage youth employment. Big sports events also contribute to economic development and often offer opportunities to initiate long-term projects. In September 2000, world leaders at the UN Millennium Summit agreed to the Millennium Development Goals (MDGs)--a set of measurable targets for combating poverty, illiteracy, hunger, lack of education, gender inequality, child and maternal mortality, diseases and environmental degradation. Endorsed by 191 Governments, the MDGs lie at the heart of the global development agenda and create a framework for action for the UN family. A school of life: Sport plays an important role in reaching the MDGs. It is a school of life. It offers a complete learning experience: overcoming obstacles, accepting the transient nature of victory, working to get results, respecting opponents, decisions of referees and fair play. It also gives confidence and can contribute to social integration, especially for foreigners and the disabled

In Section 4 of this course you will cover these topics:

- A Model For Programs For Children Ages 5 To 8
- The Transitional Curriculum: Ages 5 To 8: Language Arts
- The Transitional Curriculum: Ages 5 To 8: Mathematics And Science

### **Topic Objective:**

At the end of this topic student would be able to:

- Understand the Theoretical Framework
- Know the Benefits of Early Childhood Education
- Highlight the Reports and statements supportive of Head Start
- Explain the Congressional Impact Study

**Definition/Overview:**

Informal, voluntary after-school programs for youths have proliferated of late. Programs have ranged from those that engage kids in learning about and with computers to those that offer them opportunities to watch TV and hang out with their friends. In some instances, the impetus behind formation of these clubs was more parental concern for after-school care arrangements than it was kids interests and desires. For some researchers, who were interested in studying youths everyday literacies, the school may have been the site of inquiry, but it was the kids after-school literacies that led to an eventual, though partial, understanding of how they made meaning of their world. We take our cue from findings such as this to reflect here on work that we have done over the past several years in out-of-school settings. Specifically, in light of that work, we ask ourselves what we can reasonably expect from after-school literacy programs. In addressing this question, we draw from data we have collected over the past 5 years in our research on three after-school literacy programs. The first, a Read and Talk Club for avid readers, demonstrated the potential for such programs to serve as centers of socializing for kids whose love of reading often earned them the label of nerd by others outside their immediate peer group. The second program (Young & Ricks, in preparation), which engaged kids in an after-school reading club, looked at the mediating influence of doing gender during critical literacy activities. The third after-school program explored youths desires to organize their own time and to discuss their pleasures in a variety of media-related texts. The expectations and the kinds of texts used varied, as well as the contexts for each after-school literacy program, but in every case the youths took charge of their own learning. They also attended the programs with intent, but without much obligation. The student-centeredness of the clubs created a sense of uneasiness in some of the adult facilitators (and in some of the adolescents as well), especially in those who desired a more school-like structure for the club meetings. The chapter ends with a discussion of how this uneasiness led to new insights about what can reasonably be expected from after-school literacy programs for adolescents.

**Key Points:****1. Theoretical Framework**

We situate our work in the New Literacy Studies, a field defined largely by its blurring of sociolinguistic, anthropological, and poststructural theories. It is a field that has moved

away from conceptualizing readers, texts, and contexts as stable entities in favor of viewing them as articulated links between meaning production and identity work across different times, spaces, and social practices. Like many researchers in the New Literacy Studies, our work focuses on the ways that youths activities both construct and are constructed by sociocultural contexts at the local level. Of course, as Maybin rightly points out, the local is embedded in broader social and institutional structures, thus contributing to the complexity of studying youths everyday literacy practices. The complex nature of situated literacy practices, especially when they are intermingled with issues of identity and power, can lead to some rather bizarre assertions in the name of socially constructed reality. In his paradigmatic history of social constructionism, Hruby (2001) cautions literacy researchers and here we would specify researchers of New Literacy Studies to examine oft-heard claims that power relations are socially constructed. Such claims often rest on the assumption that peoples identities are constituted in and through oppressive relationships, which if seen for what they are, could be discarded. In other words, if one could free oneself from a state of false consciousness, all would be well. However, as Hruby and others before him continue to remind us, false consciousness implies a true consciousness, an awareness of how things really are [which gets us nowhere because] there is no privileged position outside of the social processes that constitute our conception of reality. Thus, in this chapter, we attempt to be mindful of the trap that awaits us when we fall prey to thinking that we, or the adolescents about whom we write, somehow stand outside the very practices that define each of us (at least partially) and which to some extent are of our own making. Several subquestions guiding this chapter are aimed at answering the bigger question, What can we reasonably expect from after-school literacy programs for youths? For instance, might we expect them to differ in important ways from school literacy practices? Should one of the goals of after-school literacy programs be to engage kids with texts? If so, what kinds of texts? Finally, can we expect to see youths involved in after-school literacy practices for sheer enjoyment? In addressing these questions, we rely heavily on studies involving youths who have given generously of their time. In each instance where adolescents are referred to by name, it should be understood that self-selected pseudonyms are used.

## **2. Benefits of Early Childhood Education**

Chicagos publicly-funded Child-Parent Centers have served almost 100,000 3- and 4-year-olds since 1967. Researchers tracked 989 of those children and 550 similar children not in the program for 14 years. The children who did not participate were 70 percent more likely to be arrested for a violent crime by age 18. This program also cut child abuse and neglect. In Ypsilanti, Michigan, 3- and 4-year-olds from low-income families who were randomly assigned to a group that did not receive preschool who were five times more likely to have become chronic lawbreakers by age 27 than those who were assigned to the High/Scope Educational Research Foundation.

### **3. Reports and statements supportive of Head Start**

According to Datta who summarized 31 studies, the program showed immediate improvement in the IQ scores of participating children, though after beginning school, the non-participants were able to narrow the difference. Children who attended Head Start are, relative to their siblings who did not, significantly more likely to complete high school, attend college, and possibly have higher earnings in their early twenties. They are less likely to have been booked or charged with a crime. Head Start is associated with large and significant gains in test scores. Head Start significantly reduces the probability that a child will repeat a grade. Recent criticisms of Project Head Start have resulted in plans to improve program services and to expand in a more thoughtful manner to make the program more responsive to the needs of children and families. New directions include expansion below and beyond the ages previously served by Head Start.

### **4. Congressional Impact Study**

Congress mandated an intensive study of the effectiveness of Head Start, the "Head Start Impact Study", which has issued a series of reports on the design and study of a target population of 5000 3- and 4- year old children. The Head Start Impact Study First Year Findings were released in June of 2005, and the Executive Summary is available from Health and Human Services. The study participants, beginning in fall 2002, were assigned to either the headstart program or other parent-selected community resources. Thus, the study measured Head Start's effectiveness as compared to a variety of other forms of community support and educational intervention, as opposed to comparing Head Start to a non-intervention alternative. The results of the first report showed consistent small to moderate advantages to children from participating in Head Start programs rather than

other programs, with a few areas where no advantage was reported. The benefits improved with early participation and varied among racial and ethnic groups.

**Topic Objective:**

At the end of this topic student would be able to:

- Understand the Early Childhood Literacy Strategies
- Know the Reading by Language
- Explain the Composition by Language
- Define the National Council of Teachers of English
- Describe the Present and future of Language Arts
- Elaborate the International auxiliary languages
- Investigate the Symbolic communication
- Highlight the Dialect

**Definition/Overview:**

In response to the call for evidence-based reading instruction, the Fourth Edition includes 36 research-based teaching strategies, and every chapter incorporates information on brain research, bilingual education, technology, and the medias influences on young children. The text provides instructors with a synthesis of the information on language arts gleaned from research on emergent literacy, early childhood education, and special education. It also underscores what is being emphasized in early childhood teacher accreditation programs; namely, responding to the increasingly diverse needs of young language learners in inclusive settings, working with parents and families, and collaborating with professionals in other fields. The content and examples throughout each chapter enable students to see how children go through the process of acquiring literacy, and how literacy learning occurs with diverse groups of learners. Each contains a section on standards, teacher concerns and basic strategies, developmentally appropriate activities, and a teacher self-assessment.

**Key Points:**

## 1. Early Childhood Literacy Strategies

Early Childhood Literacy Strategies is the answer to the early childhood teacher's dilemma of how to teach reading to children 3, 4, and 5 years of age as mandated by the state and national governments. This text presents an easy-to-use, easy-to-understand approach involving young children's own emergence into the world of speaking and listening, reading and writing. Teachers and student interns will quickly learn what picture books and activities to use with children, how to use them, and how children can benefit from their use. They will learn what to expect as young children's writing emerges from scribbles to pictures and real words. Finally, they will come to terms with the concept of emergent literacy as it appears in preschool children and evolves into conventional literacy as it is taught in elementary school. Professors and students alike will also learn what the latest reading research has to say about the core skills necessary for children to learn to read, as well as advances in neuroscience that give us new understandings of the human brain and how it processes information. All of this new material is essential for professors to present in their courses and students to understand how to apply it as they proceed into the world of working with young children.

## 2. Reading by Language

Reading, by definition, is the ability and knowledge of a language that allows comprehension by grasping the meaning of written or printed characters, words, or sentences. Reading involves a wide variety of print and nonprint texts that help a reader gain an understanding of what is being read. Reading allows a reader to acquire new information, gain knowledge and understanding, and for personal fulfillment. Reading of texts that are often included in educational curriculum include fiction, nonfiction, classic, and contemporary works.

## 3. Composition by Language

Composition is defined as the combination of distinct parts or elements to form a whole and the manner in which these elements are combined or related. The following are examples of Composition in Language Arts:

- The art or act of composing a literary work

- The structure or organization of literature
- A short essay, especially one written as an academic exercise (an essay is a short literary composition on a particular theme or subject, usually in prose and generally analytic, speculative, or interpretative)

There are many types of short essays, including, but not limited to:

- Five-paragraph essay
- Argumentative essay
- Cause and effect essay
- Comparative essay.

Compositions may also include:

- Narrative Essays
- Expository Essays
- Persuasive Essays
- Technical Writing

#### **4. National Council of Teachers of English**

The National Council of Teachers of English (NCTE) is an American professional organization dedicated to "improving the teaching and learning of English and the language arts at all levels of education. Since 1911, NCTE has provided a forum for the profession, an array of opportunities for teachers to continue their professional growth throughout their careers, and a framework for cooperation to deal with issues that affect the teaching of English." In addition, the NCTE lists its mission as: "The Council promotes the development of literacy, the use of language to construct personal and public worlds and to achieve full participation in society, through the learning and teaching of English and the related arts and sciences of language." The NCTE is involved in publishing journals and books that address the concerns of English language arts educators. Since the 1970s, it has issued annual Doublespeak Awards and Orwell Awards.

#### **5. Present and future**

The NCTE currently has over 60,000 members and subscribers in the United States and internationally. This membership is composed of teachers and supervisors of English programs ranging from elementary, middle, and secondary schools to faculty in college and university English departments as well as teacher educators, local and state agency English specialists, and other professionals in directly related fields. Sponsoring over 120 regional, state, provincial, local, and student affiliates within the United States, Canada, and Asian countries, the NCTE continues its rapid annual growth.

## **6. International auxiliary languages**

Some languages, most constructed, are meant specifically for communication between people of different nationalities or language groups as an easy-to-learn second language. Several of these languages have been constructed by individuals or groups. Natural, pre-existing languages may also be used in this way - their developers merely catalogued and standardized their vocabulary and identified their grammatical rules. These languages are called naturalistic. One such language, Latino Sine Flexione, is a simplified form of Latin. Two others, Occidental and Novial, were drawn from several Western languages. To date, the most successful auxiliary language is Esperanto, invented by Polish ophthalmologist Zamenhof. It has a relatively large community roughly estimated at about 2 million speakers worldwide, with a large body of literature, songs, and is the only known constructed language to have native speakers, such as the Hungarian-born American businessman George Soros. Other auxiliary languages with a relatively large number of speakers and literature are Interlingua and Ido.

## **7. Symbolic communication**

Symbolic communication is exchange of messages that change a priori expectation of events. Examples of this are modern communication technology as also exchange of information amongst animals. In animal societies, symbolic communication helps one understand the conduct of members of cooperating groups. The behavior of weaver ant workers has been carefully studied and it has been found that communicative gestures with respect to members of the same colony are different than those used with intruders. The interpretation of the symbolic dance of honey bees as a communicative language has been questioned by a few, though numerous experimental results over the last several decades have effectively laid this controversy to rest. By referring to objects and ideas not

present at the time of communication, a world of possibility is opened. In humans, this process has been compounded to result in our current state of modernity.

## 8. Dialect

A dialect (from the Greek word *dialektos*) is a variety of a language that is characteristic of a particular group of the language's speakers. The term is applied most often to regional speech patterns, but a dialect may also be defined by other factors, such as social class. Sometimes in stories authors use dialects to make a character stand out. A dialect that is associated with a particular social class can be termed a sociolect. Other speech varieties include: standard languages, which are standardized for public performance (for example, a written standard); jargons, which are characterized by differences in lexicon (vocabulary); slang; patois; pidgins or argots. The particular speech patterns used by an individual are termed an idiolect. A dialect is distinguished by its vocabulary, grammar, and pronunciation (phonology, including prosody). Where a distinction can be made only in terms of pronunciation, the term accent is appropriate, not dialect (although in common usage, "dialect" and "accent" are usually synonymous).

### Topic Objective:

At the end of this topic student would be able to:

- Understand the Dialogue on Early Childhood Science, Mathematics
- Know how Fundamental Concepts and Skills Develop
- Examine how Science Concepts Are Acquired
- Analyze Naturalistic Experiences
- Define Informal Learning Experiences
- Describe Structured Learning Experiences
- Elaborate Commonalities of Science and Mathematics in Early Childhood
- Explain Encouraging Inquiry Through Problem Solving
- Highlight The Theoretical Basis of Science Education
- Investigate Science Content and Cognitive Capacity: Avoiding a Mismatch

**Definition/Overview:**

Mathematics helps children make sense of the world around them and find meaning in the physical world. Through mathematics, children learn to understand their world in terms of numbers and shapes. They learn to reason, to connect ideas, and to think logically.

Mathematics is more than the rules and operations we learned in school. It is about connections and seeing relationships in everything we do. Children learn best when they are interested and even excited about what they are doing. As a parent, you have the special opportunity to make the most of the moments during the day when your children are curious. Toddlers may just point to objects saying "dat?" to ask what it is. Describe it for them, "Oh, that's a pink flower" or "the chair has a square seat." As your children get older, they may ask "how many?" or "what color. . . ?" These questions encourage children to think. Teachers and schools must plan activities, but you don't have to plan in advance. Just take advantage of learning opportunities that happen naturally. You can turn these times into teachable moments. When you use daily events that have meaning to your children, the impact is very powerful. Give your children many opportunities to see and hear different things, and to move about and play with things they can touch. Let them collect things, and show you and tell you things in their own way.

Encourage children to think. Also, ask them questions and allow them to explore different ways of solving problems. If they seem to be going way off the mark, lead them back by starting with the part of their approach that was logical. Always show respect for their thinking and accept their point of view. Remember, children think much differently than adults. Take your time. Children, including those with special needs, tire easily. It is better to go lightly and keep their interest than to push too hard. All of the activities in this booklet could be done during your children's daily routines. They require no special equipment or detailed planning. Use them to do something pleasant with your child, add some interest to an otherwise routine activity, or just keep your children interested or occupied. But remember, it is not just the doing but the thinking that promotes learning. The questions you ask your children and the questions they ask you are very important. We have tried to suggest how you might ask your children interesting questions and build on their answers. Hopefully, these activities will make your day easier and more productive.

**Key Points:**

## 1. Dialogue on Early Childhood Science, Mathematics

One of the strongest themes in the National Science Education Standards (NSES) and Benchmarks for Science Literacy (Benchmarks) is that all children can learn science and that all children should have the opportunity to become scientifically literate. In order for this learning to happen, the effort to introduce children to the essential experiences of science inquiry and explorations must begin at an early age. A national consensus has evolved around what constitutes effective science teaching and learning for young children. More than ever before, educators agree that preschool-level and primary-level science is an active enterprise. Science is understood to be a process of finding out and a system for organizing and reporting discoveries. Rather than being viewed as the memorization of facts, science is seen as a way of thinking and trying to understand the world. This agreement can be seen in the national reform documents NSES, Benchmarks, and Science for All Americans. Both NSES and Benchmarks are aligned with the guidelines from the National Association for the Education of Young Children.

The reform documents mentioned in the previous paragraph espouse the idea that active, hands-on, conceptual learning provides meaningful and relevant learning experiences. These documents also reinforce Oakes' observation that all students, especially those in underrepresented groups, need to learn scientific skills such as observation and analysis at a very young age. This paper describes how fundamental concepts and skills are developed from infancy through the primary years and offers strategies for helping students to acquire the skills needed for inquiry learning. It provides an overview of teaching and learning science in the early years, emphasizing the importance of selecting science content that matches the cognitive capacities of students.

## 2. How Fundamental Concepts and Skills Develop

As any scientist knows, the best way to learn science is to do science. This is the only way to get to the real business of asking questions, conducting investigations, collecting data, and looking for answers. With young children, this strategy can best be accomplished by examining natural phenomena that can be studied over time. Children need to have a chance to ask and answer questions, do investigations, and learn to apply problem-solving skills. Active, hands-on, student-centered inquiry is at the core of good science education. Concepts are the building blocks of knowledge; they allow people to

organize and categorize information. During early childhood, children actively engage in acquiring fundamental concepts and in learning fundamental process skills. As we watch children in their everyday activities at various stages of development, we can observe them constructing and using concepts such as

- **one-to-one correspondenc:** putting pegs in pegboard holes or passing one apple to each child at the table;
- **countin:** counting the pennies from the penny bank or the number of straws needed for every child at the table;
- **classifyin:** placing square shapes in one pile and round shapes in another or putting cars in one garage and trucks in another; and
- **measuring:** pouring sand, water, rice, or other materials from one container to another.

Young children begin to construct many concepts during the pre-primary period, including mathematics and science concepts. They also develop the processes that enable them to apply their newly acquired concepts, expand existing concepts, and develop new ones. As they enter the primary period (grades one through three), children apply their early, basic concepts when exploring more abstract inquiries and concepts in science. Using these concepts also helps them understand more complex concepts in mathematics such as multiplication, division, and the use of standard units of measurement. Concepts used in science grow and develop as early as infancy. Babies explore the world with their senses. They look, touch, smell, hear, and taste. Children are born curious and want to know all about their environment. As children learn to crawl, to stand, and to walk, they are free to discover more on their own and learn to think for themselves. They begin to learn ideas of size: As they look about, they sense their relative smallness. They go over, under, and into large objects and discover the size of these objects relative to their own size. They grasp things and find that some fit their tiny hands, and others do not. Infants learn about weight when they cannot always lift items of the same size. They learn about shape: Some things stay put while others roll away. They learn time sequence: When they wake up, they feel wet and hungry. They cry. The caretaker comes. They are changed and then fed. Next they play, get tired, and go to sleep. As babies first look and then move, they discover space: Some spaces are big and some spaces are small. With time, babies develop spatial sense: They are placed in a crib or playpen in the center of the living room.

Toddlers sort things. They put them in piles of the same color, the same size, the same shape, or with the same use. Young children pour sand and water into containers of different sizes. They pile blocks into tall structures and see them fall and become small parts again. The free exploring and experimentation of a child's first two years help to develop muscle coordination and the senses of taste, smell, sight, and hearing skills and senses that serve as a basis for future learning. As children enter preschool and kindergarten, exploration continues to be the first step in dealing with new situations. At this time, however, children also begin to apply basic concepts to collecting and organizing data to answer a question. Collecting data requires skills in observation, counting, recording, and organizing. For example, for a science investigation, kindergartners might be interested in the process of plant growth. Supplied with lima bean seeds, wet paper towels, and glass jars, the children place the seeds in the jars, securing the seeds to the sides of the jars with the paper towels. Each day they add water, if needed, and observe what is happening to the seeds. They dictate their observation to their teacher, who records their comments on a chart. Each child also plants some beans in dirt in a small container such as a paper or plastic cup. The teacher supplies each child with a chart for his or her bean garden. The children check off each day on their charts until they see a sprout. Then they count how many days it took for a sprout to appear, comparing this number with those of other class members, as well as with the time it takes for the seeds in the glass jars to sprout. The children have used the concepts of number and counting, one-to-one correspondence, time, and comparison of the number of items in two groups. Primary-level children might attack the same problem, but they can operate more independently and record more information, use standard measuring tools, and do background reading on their own.

### **3. How Science Concepts Are Acquired**

Children acquire fundamental concepts through active involvement with their environment. As they explore their surroundings, they actively construct their own knowledge. Charlesworth and Lind characterize specific learning experiences with young children as naturalistic (or spontaneous), informal, or structured. These experiences differ in terms of who controls the activity: the adult or the child. Naturalistic experiences are those in which the child controls choice and action; in informal experiences, the child chooses the activity and action, but adults intervene at some point; and in structured

experiences, the adult chooses the experience for the child and gives some direction to the child's action. Keep in mind that there are variations in learning styles among groups of children and among different cultural groups. Thus, science content should be introduced when it is appropriate to do so, as illustrated in the following examples.

#### **4. Naturalistic Experiences**

Naturalistic experiences are those initiated spontaneously by children as they go about their daily activities. These experiences are the major mode of learning for children during the sensorimotor period. Naturalistic experiences can also be a valuable mode of learning for older children. With naturalistic experiences, the adult's role is to provide an interesting and rich environment for the child. That is, adults should offer many things for the child to look at, touch, taste, smell, and hear. The adult should observe the child's activity, note how it is progressing, and then respond with a glance, a nod, a smile, or a word of praise to encourage the child. The child needs to know when he or she is doing the appropriate things. Below are some examples of naturalistic experiences.

- Tamara takes a spoon from the drawer and says, "This is big." Mom says, "Yes."
- Cindy (age 4) sits on the rug sorting colored rings into plastic cups.
- Sam (age 5) is painting. He puts down a dab of yellow. Then he dabs some blue on top. "Hey! I've got green now," he exclaims.

#### **5. Informal Learning Experiences**

The adult initiates informal learning experiences as the child is engaged in naturalistic experiences. These experiences are not pre-planned: They occur when the adult's experience or intuition or both indicate that it is time to act. For example, the child might be on the right track in solving a problem but needs a cue or encouragement. In another situation, the adult might take advantage of a teachable moment to reinforce certain concepts.

#### **6. Structured Learning Experiences**

Structured experiences are preplanned lessons or activities that can occur in many different ways. For example, Cindy is four years old. Her teacher decides that she needs to practice counting. She says, "Cindy, I have some blocks here for you to count. How

many are in this pile? Teachers can also offer structured experiences in the following situations:

- With a small group at a specific time. For example, a teacher shows the children balls of different sizes and asks them to examine the balls and discuss their characteristics. The teacher picks up a ball and says, Find a ball that is smaller.
- At any opportune time. Mrs. Flores, knowing that Tanya needs help with the concept of shape, suggests a game to play and gives her directions to play the game.
- With a large group at a specific time. Ms. Hebert realizes that classification is an important concept that should be applied throughout the primary grades. It is extremely important in organizing science data. For example, when it was time to study skeletons, Ms. Hebert had students bring bones from home so they could classify them.

## 7. Commonalities of Science and Mathematics in Early Childhood

There is a natural integration of fundamental concepts and process skills across content areas, including mathematics and science. When fundamental mathematics concepts comparing, classifying, and measuring are applied to science problems, they are referred to as process skills. These mathematical concepts are necessary to solve some science problems. The other science process skills observing, communicating, inferring, hypothesizing, and defining and controlling variables are equally important for solving problems in both science and mathematics. For example, consider the principle of the ramp, a basic concept in physics. Suppose a two-foot-wide plywood board is leaned against a large block, so that it becomes a ramp. Children are given a number of balls of different sizes and weights to roll down the ramp. Once their free exploration defines the ideas of the game, the teacher might ask some questions such as, What would happen if two balls started to roll from the top of the ramp at the same time? What would happen if you changed the height of the ramp? Or had two ramps of different heights? Of different lengths? The children could guess, explore what happens when they vary the steepness and length of the ramps or use different balls, observe what happens, communicate their observations, and describe similarities and differences in each of their experiments. They might observe differences in speed and distance contingent on the size or weight of the ball, the height and length of the ramp, or other variables. In this example, children could use the mathematical concepts of speed, distance, height, length, and counting (how many blocks are supporting each ramp?) while engaged in scientific observations.

In another example, a preschool teacher brings several pieces of fruit to class: one red apple, one green apple, two oranges, two grapefruit, and two bananas. The children examine the fruit to discover as much about these pieces as possible. They observe size, shape, color, texture, taste, and composition using counting and classification skills. (How many of each fruit type? Juicy or dry? Segmented or whole? Seeds or no seeds?) These observations may be recorded. (What is the color of each fruit? How many are spheres? How many are juicy?) The fruit can be weighed and measured, prepared for eating, and divided equally among the students. Math and science concepts and skills can be acquired as children engage in traditional early childhood activities such as playing with blocks, water, sand, and manipulative materials, as well as during dramatic play, cooking, and outdoor activities. Providing young children with opportunities to see the math and science in their everyday activities helps them to build the basic understandings and interest for future learning.

## 8. Encouraging Inquiry Through Problem Solving

A major area of interest in science education research is the teaching of science through inquiry. Research findings and the national reforms in science education overwhelmingly support this notion. The U.S. Department of Education and the National Science Foundation (1992) endorse mathematics and science curricula that promote active learning, inquiry, problem solving, cooperative learning, and other instructional methods that motivate students. The publication entitled National Science Education Standards states that science teaching must reflect science as it is practiced and that one goal of science education is to prepare children to understand and use the modes of reasoning of scientific inquiry. NSES presents inquiry as a step beyond process that involves learning, observing, and inferring. Inquiry-oriented instruction engages students in the investigative nature of science. As Novak suggested, inquiry is a student behavior that involves activity and skills, but the focus is on the active search for knowledge or understanding to satisfy students curiosity. In inquiry, educators should not expect children to discover everything for themselves, rather, they should focus on relating new science knowledge both to previously learned knowledge and to experiential phenomena, so students can build a consistent picture of the physical world. Science teachers can facilitate this process in several ways. For example, when children show an interest in learning more about a bean plant or a nearby tree, the teacher should ask questions to determine what each student

already knows. In this way, teachers can modify learning experiences and classroom settings to best meet individual needs.

One way to involve students in inquiry is through problem solving, which is not as much a teaching strategy as it is a child behavior. As with inquiry, the driving force behind problem solving is curiosity and interest in finding out. The challenge for the teacher is to create an environment in which problem solving can occur. Problems should relate to, and include, the children's own experiences. From birth, children want to learn and they naturally seek out problems to solve. Problem solving in the pre-kindergarten years focuses on naturalistic and informal learning: filling and emptying containers of water, sand, or other substances; observing ants; or racing toy cars down a ramp. In kindergarten and the primary grades, adults can institute a more structured approach to problem solving. Most science educators agree that problem solving and reflective thinking play an important role in children's science learning in school. In summarizing the findings of 26 national reports calling for reform in education particularly curriculum and instruction in mathematics and science Hurd found that 18 of those reports specifically identify problem solving in science as an educational objective. Problem solving can be a powerful motivating factor to learn science. When students perceive the situations and problems they study in class as real, their curiosity is piqued and they are inspired to find an answer. Searching for a solution to a question or problem that is important to the student holds his or her attention and creates enthusiasm.

## 9. The Theoretical Basis of Science Education

The young child's understanding of science grows from the fundamental concepts they develop during early childhood. Much of our understanding about how and when this development takes place comes from research that is based on theories of concept development as put forth by Jean Piaget and Lev Vygotsky. These theories gave rise to the constructivist approach, which places the emphasis on individual children as intellectual explorers who make their own discoveries and construct knowledge. Constructivism has important implications for science education, especially in today's classrooms, where students are encouraged to engage in the inquiry process rather than memorize isolated science facts. The current interest in the study of science concept learning owes much to the work of Novak, whose book explores children's explanations for natural phenomena. Since this text was published, numerous studies related to a wide

range of topics in the science curriculum have been reported, reviewed, and summarized by many researchers.

In science, teaching for conceptual change, or teaching for understanding, requires different strategies from those previously employed by educators. Many science education researchers agree that the key is to provide a developmentally appropriate context that progressively increases in conceptual depth and complexity as children advance through school and life. The assessment of prior knowledge is thought to be essential to this process. Von Glasserfeld, Resnick, and others caution that if we as educators do not take students prior knowledge into consideration, it is likely that the message we think we are sending will not be the message that students receive.

### **10. Science Content and Cognitive Capacity: Avoiding a Mismatch**

Although Piaget's developmental stages of learning are considered a major contribution to the teaching and learning of science, educators and curriculum developers do not always take these stages into account when designing science curriculum and experiences for young children. If children are to learn science and become scientifically literate, educators must choose appropriate science content and experiences to match children's cognitive capacities at different stages of their development. Cowan underscores the importance of this alignment, stressing that mismatching content and developmental levels (e.g., expecting kindergarten children to understand the movements of the Earth's crust) leads to misconceptions and frustrations for teacher, parent, and child. These types of mismatches often cause teachers to resort to telling the information in a didactic manner because the child cannot conceptualize the content. As Covington and Berry found, the results of mismatched content and cognitive capacity are that (1) children are not able to extend, apply, or interpret deeper meanings of the content; and (2) interest and positive attitudes toward science are likely to diminish. Many other examples in the literature also emphasize the match between science content and cognitive capacity as essential to learning science. The implication from the research is that the content must always be within the realm of possibility of comprehension.

A prominent feature of cognitive research is the study of student misconceptions in science. These misconceptions are not merely errors in calculations or the misapplication of strategies. They are ideas that are based on misperceptions or incorrect generalizations

that are consistent with the students general understanding of a phenomenon. For example, misconceptions can be seen in childrens ideas about light and shadows, which have been studied by Piaget and Feher and Rice. Young children think of a shadow as an object. They think that light is the agent that causes the object to form or that allows people to see the shadow, even when it is dark. This example clearly shows that misconceptions are a very real and significant obstacle to learning, one that educators must overcome before broaching new science concepts. In considering all of the preschool and primary developmental stages described by Piaget, keep in mind that a childs view of the world and of scientific and mathematical concepts is not the same as yours. Their perception of phenomena is formed from their own perspective and experiences. Misconceptions will arise. So, be ready to explore the world to expand their thinking, and be prepared for the next developmental stage. Teach children to observe with all of their senses and to classify, predict, and communicate, so they can discover other viewpoints

In Section 5 of this course you will cover these topics:

- The Transitional Curriculum: Ages 5 To 8: Social Studies And Physical Education
- Teaching In The Real World

### **Topic Objective:**

At the end of this topic student would be able to:

- Understand the Inquiry Learning Through Integration
- Explain the Curriculum Standards for Social Studies
- Describe the Physical education Curriculum

### **Definition/Overview:**

The Social Studies Unit, in the Division of Curriculum, provides direction and leadership to the social studies program, Kindergarten-Grade 12. Unit staff assists districts statewide with implementation of the Texas Essential Knowledge and Skills (TEKS) for social studies;

oversees the website of the Social Studies Center; collaborates with the Division of Student Assessment regarding TAKS social studies assessments; and assists the Textbook Division in overseeing the textbook adoption process for K-12 social studies instructional materials.

### **Key Points:**

#### **1. Inquiry Learning Through Integration**

Designed for courses in early childhood curriculum, Krogh and Morehouse offers detailed instruction on making an inquiry and integration approach to early education work. Part One provides a foundation in theory, philosophy, research, and child development the knowledge future teachers will need to create effective curriculum on their own. Part Two present an entire chapter devoted to each major curriculum area, organized around the standards developed by the relevant national association. The how to format and inclusion of actual classroom projects and artifacts make this a truly practical and engaging text.

#### **2. Curriculum Standards for Social Studies**

- **Culture**

Human beings create, learn, and adapt culture. Culture helps us to understand ourselves as both individuals and members of various groups. Human cultures exhibit both similarities and differences. We all, for example, have systems of beliefs, knowledge, values, and traditions. Each system also is unique. In a democratic and multicultural society, students need to understand multiple perspectives that derive from different cultural vantage points. This understanding will allow them to relate to people in our nation and throughout the world. Cultures are dynamic and ever-changing. The study of culture prepares students to ask and answer questions such as: What are the common characteristics of different cultures? How do belief systems, such as religion or political ideals of the culture, influence the other parts of the culture? How does the culture change to accommodate different ideas and beliefs? What does language tell us about the culture? In schools, this theme typically appears in units and courses dealing with geography, history, and anthropology, as well as multicultural topics across the curriculum.

During the early years of school, the exploration of the concepts of likenesses and differences in school subjects such as language arts, mathematics, science, music, and art makes the study of culture appropriate. Socially, the young learner is beginning to interact with other students, some of whom are like the student and some different; naturally, he or she wants to know more about others. In the middle grades, students begin to explore and ask questions about the nature of culture and specific aspects of culture, such as language and beliefs, and the influence of those aspects on human behavior. As students progress through high school, they can understand and use complex cultural concepts such as adaptation, assimilation, acculturation, diffusion, and dissonance drawn from anthropology, sociology, and other disciplines to explain how culture and cultural systems function.

- **Time, Continuity, and Change**

Social studies programs should include experiences that provide for the study of the ways human beings view themselves in and over time. Human beings seek to understand their historical roots and to locate themselves in time. Such understanding involves knowing what things were like in the past and how things change and develop. Knowing how to read and reconstruct the past allows one to develop a historical perspective and to answer questions such as: Who am I? What happened in the past? How am I connected to those in the past? How has the world changed and how might it change in the future? Why does our personal sense of relatedness to the past change? How can the perspective we have about our own life experiences be viewed as part of the larger human story across time? How do our personal stories reflect varying points of view and inform contemporary ideas and actions? This theme typically appears in courses that: 1) include perspectives from various aspects of history; 2) draw upon historical knowledge during the examination of social issues; and 3) develop the habits of mind that historians and scholars in the humanities and social sciences employ to study the past and its relationship to the present in the United States and other societies.

Learners in early grades gain experience with sequencing to establish a sense of order and time. They enjoy hearing stories of the recent past as well as of long ago. In addition, they begin to recognize that individuals may hold different views about the past and to understand the linkages between human decisions and consequences.

Thus, the foundation is laid for the development of historical knowledge, skills, and values. In the middle grades, students, through a more formal study of history, continue to expand their understanding of the past and of historical concepts and inquiry. They begin to understand and appreciate differences in historical perspectives, recognizing that interpretations are influenced by individual experiences, societal values, and cultural traditions. High school students engage in more sophisticated analysis and reconstruction of the past, examining its relationship to the present and extrapolating into the future. They integrate individual stories about people, events, and situations to form a more holistic conception, in which continuity and change are linked in time and across cultures. Students also learn to draw on their knowledge of history to make informed choices and decisions in the present.

- **People, Places, and Environments**

Social studies programs should include experiences that provide for the study of people, places, and environments. Technological advances connect students at all levels to the world beyond their personal locations. The study of people, places, and human-environment interactions assists learners as they create their spatial views and geographic perspectives of the world. Today's social, cultural, economic, and civic demands on individuals mean that students will need the knowledge, skills, and understanding to ask and answer questions such as: Where are things located? Why are they located where they are? What patterns are reflected in the groupings of things? What do we mean by region? How do landforms change? What implications do these changes have for people? This area of study helps learners make informed and critical decisions about the relationship between human beings and their environment. In schools, this theme typically appears in units and courses dealing with area studies and geography.

In the early grades, young learners draw upon immediate personal experiences as a basis for exploring geographic concepts and skills. They also express interest in things distant and unfamiliar and have concern for the use and abuse of the physical environment. During the middle school years, students relate their personal experiences to happenings in other environmental contexts. Appropriate experiences will encourage increasingly abstract thought as students use data and apply skills in analyzing human behavior in relation to its physical and cultural environment.

Students in high school are able to apply geographic understanding across a broad range of fields, including the fine arts, sciences, and humanities. Geographic concepts become central to learners' comprehension of global connections as they expand their knowledge of diverse cultures, both historical and contemporary. The importance of core geographic themes to public policy is recognized and should be explored as students address issues of domestic and international significance.

- **Individual Development and Identity**

Social studies programs should include experiences that provide for the study of individual development and identity. Personal identity is shaped by one's culture, by groups, and by institutional influences. How do people learn? Why do people behave as they do? What influences how people learn, perceive, and grow? How do people meet their basic needs in a variety of contexts? Questions such as these are central to the study of how individuals develop from youth to adulthood. Examination of various forms of human behavior enhances understanding of the relationships among social norms and emerging personal identities, the social processes that influence identity formation, and the ethical principles underlying individual action. In schools, this theme typically appears in units and courses dealing with psychology and anthropology. Given the nature of individual development and our own cultural context, students need to be aware of the processes of learning, growth, and development at every level of their school experience. In the early grades, for example, observing brothers, sisters, and older adults, looking at family photo albums, remembering past achievements and projecting oneself into the future, and comparing the patterns of behavior evident in people of different age groups are appropriate activities because young learners develop their personal identities in the context of families, peers, schools, and communities. Central to this development are the exploration, identification, and analysis of how individuals relate to others. In the middle grades, issues of personal identity are refocused as the individual begins to explain self in relation to others in the society and culture. At the high school level, students need to encounter multiple opportunities to examine contemporary patterns of human behavior, using methods from the behavioral sciences to apply core concepts drawn from psychology, social psychology, sociology, and anthropology as they apply to individuals, societies, and cultures.

- **Individuals, Groups, and Institutions**

Social studies programs should include experiences that provide for the study of interactions among individuals, groups, and institutions. Institutions such as schools, churches, families, government agencies, and the courts all play an integral role in our lives. These and other institutions exert enormous influence over us, yet institutions are no more than organizational embodiments to further the core social values of those who comprise them. Thus, it is important that students know how institutions are formed, what controls and influences them, how they control and influence individuals and culture, and how institutions can be maintained or changed. The study of individuals, groups, and institutions, drawing upon sociology, anthropology, and other disciplines, prepares students to ask and answer questions such as: What is the role of institutions in this and other societies? How am I influenced by institutions? How do institutions change? What is my role in institutional change? In schools, this theme typically appears in units and courses dealing with sociology, anthropology, psychology, political science, and history.

Young children should be given opportunities to examine various institutions that affect their lives and influence their thinking. They should be assisted in recognizing the tensions that occur when the goals, values, and principles of two or more institutions or groups conflict—for example, when the school board prohibits candy machines in schools vs. a class project to install a candy machine to help raise money for the local hospital. They should also have opportunities to explore ways in which institutions such as churches or health care networks are created to respond to changing individual and group needs. Middle school learners will benefit from varied experiences through which they examine the ways in which institutions change over time, promote social conformity, and influence culture. They should be encouraged to use this understanding to suggest ways to work through institutional change for the common good. High school students must understand the paradigms and traditions that undergird social and political institutions. They should be provided opportunities to examine, use, and add to the body of knowledge related to the behavioral sciences and social theory as it relates to the ways people and groups organize themselves around common needs, beliefs, and interests.

- **Power, Authority, and Governance**

Social studies programs should include experiences that provide for the study of how people create and change structures of power, authority, and governance.

Understanding the historical development of structures of power, authority, and governance and their evolving functions in contemporary U.S. society, as well as in other parts of the world, is essential for developing civic competence. In exploring this theme, students confront questions such as: What is power? What forms does it take? Who holds it? How is it gained, used, and justified? What is legitimate authority? How are governments created, structured, maintained, and changed? How can we keep government responsive to its citizens' needs and interests? How can individual rights be protected within the context of majority rule? By examining the purposes and characteristics of various governance systems, learners develop an understanding of how groups and nations attempt to resolve conflicts and seek to establish order and security. Through study of the dynamic relationships among individual rights and responsibilities, the needs of social groups, and concepts of a just society, learners become more effective problem-solvers and decision-makers when addressing the persistent issues and social problems encountered in public life. They do so by applying concepts and methods of political science and law. In schools, this theme typically appears in units and courses dealing with government, politics, political science, history, law, and other social sciences.

Learners in the early grades explore their natural and developing sense of fairness and order as they experience relationships with others. They develop an increasingly comprehensive awareness of rights and responsibilities in specific contexts. During the middle school years, these rights and responsibilities are applied in more complex contexts with emphasis on new applications. High school students develop their abilities in the use of abstract principles. They study the various systems that have been developed over the centuries to allocate and employ power and authority in the governing process. At every level, learners should have opportunities to apply their knowledge and skills to and participate in the workings of the various levels of power, authority, and governance.

- **Production, Distribution, and Consumption**

Social studies programs should include experiences that provide for the study of how people organize for the production, distribution, and consumption of goods and

services. People have wants that often exceed the limited resources available to them. As a result, a variety of ways have been invented to decide upon answers to four fundamental questions: What is to be produced? How is production to be organized? How are goods and services to be distributed? What is the most effective allocation of the factors of production (land, labor, capital, and management)? Unequal distribution of resources necessitates systems of exchange, including trade, to improve the well-being of the economy, while the role of government in economic policymaking varies over time and from place to place. Increasingly these decisions are global in scope and require systematic study of an interdependent world economy and the role of technology in economic decision-making. In schools, this theme typically appears in units and courses dealing with concepts, principles, and issues drawn from the discipline of economics. Young learners begin by differentiating between wants and needs. They explore economic decisions as they compare their own economic experiences with those of others and consider the wider consequences of those decisions on groups, communities, the nation, and beyond. In the middle grades, learners expand their knowledge of economic concepts and principles, and use economic reasoning processes in addressing issues related to the four fundamental economic questions. High school students develop economic perspectives and deeper understanding of key economic concepts and processes through systematic study of a range of economic and sociopolitical systems, with particular emphasis on the examination of domestic and global economic policy options related to matters such as health care, resource use, unemployment, and trade.

- **Science, Technology, and Society**

Social studies programs should include experiences that provide for the study of relationships among science, technology, and society. Technology is as old as the first crude tool invented by prehistoric humans, but today's technology forms the basis for some of our most difficult social choices. Modern life as we know it would be impossible without technology and the science that supports it. But technology brings with it many questions: Is new technology always better than that which it will replace? What can we learn from the past about how new technologies result in broader social change, some of which is unanticipated? How can we cope with the ever-increasing pace of change, perhaps even with the feeling that technology has

gotten out of control? How can we manage technology so that the greatest number of people benefit from it? How can we preserve our fundamental values and beliefs in a world that is rapidly becoming one technology-linked village? This theme appears in units or courses dealing with history, geography, economics, and civics and government. It draws upon several scholarly fields from the natural and physical sciences, social sciences, and the humanities for specific examples of issues and the knowledge base for considering responses to the societal issues related to science and technology.

Young children can learn how technologies form systems and how their daily lives are intertwined with a host of technologies. They can study how basic technologies such as ships, automobiles, and airplanes have evolved and how we have employed technology such as air conditioning, dams, and irrigation to modify our physical environment. From history (their own and others'), they can construct examples of how technologies such as the wheel, the stirrup, and the transistor radio altered the course of history. By the middle grades, students can begin to explore the complex relationships among technology, human values, and behavior. They will find that science and technology bring changes that surprise us and even challenge our beliefs, as in the case of discoveries and their applications related to our universe, the genetic basis of life, atomic physics, and others. As they move from the middle grades to high school, students will need to think more deeply about how we can manage technology so that we control it rather than the other way around. There should be opportunities to confront such issues as the consequences of using robots to produce goods, the protection of privacy in the age of computers and electronic surveillance, and the opportunities and challenges of genetic engineering, test-tube life, and medical technology with all their implications for longevity and quality of life and religious beliefs.

- **Global Connections**

Social studies programs should include experiences that provide for the study of global connections and interdependence. The realities of global interdependence require understanding the increasingly important and diverse global connections among world societies. Analysis of tensions between national interests and global priorities contributes to the development of possible solutions to persistent and

emerging global issues in many fields: health care, economic development, environmental quality, universal human rights, and others. Analyzing patterns and relationships within and among world cultures, such as economic competition and interdependence, age-old ethnic enmities, political and military alliances, and others, helps learners carefully examine policy alternatives that have both national and global implications. This theme typically appears in units or courses dealing with geography, culture, and economics, but again can draw upon the natural and physical sciences and the humanities, including literature, the arts, and language. Through exposure to various media and first-hand experiences, young learners become aware of and are affected by events on a global scale. Within this context, students in early grades examine and explore global connections and basic issues and concerns, suggesting and initiating responsive action plans. In the middle years, learners can initiate analysis of the interactions among states and nations and their cultural complexities as they respond to global events and changes. At the high school level, students are able to think systematically about personal, national, and global decisions, interactions, and consequences, including addressing critical issues such as peace, human rights, trade, and global ecology.

- **Civic Ideals and Practices**

Social studies programs should include experiences that provide for the study of the ideals, principles, and practices of citizenship in a democratic republic. An understanding of civic ideals and practices of citizenship is critical to full participation in society and is a central purpose of the social studies. All people have a stake in examining civic ideals and practices across time and in diverse societies as well as at home, and in determining how to close the gap between present practices and the ideals upon which our democratic republic is based. Learners confront such questions as: What is civic participation and how can I be involved? How has the meaning of citizenship evolved? What is the balance between rights and responsibilities? What is the role of the citizen in the community and the nation, and as a member of the world community? How can I make a positive difference? In schools, this theme typically appears in units or courses dealing with history, political science, cultural anthropology, and fields such as global studies and law-related education, while also drawing upon content from the humanities. In the early grades, students are

introduced to civic ideals and practices through activities such as helping to set classroom expectations, examining experiences in relation to ideals, and determining how to balance the needs of individuals and the group. During these years, children also experience views of citizenship in other times and places through stories and drama. By the middle grades, students expand their ability to analyze and evaluate the relationships between ideals and practice. They are able to see themselves taking civic roles in their communities. High school students increasingly recognize the rights and responsibilities of citizens in identifying societal needs, setting directions for public policies, and working to support both individual dignity and the common good. They learn by experience how to participate in community service and political activities and how to use democratic process to influence public policy.

### 3. Physical education

In most educational systems, physical education (P.E.) class, Phys Ed, is a course that utilizes learning in the cognitive, affective and psychomotor domains in a play or movement exploration setting. The term physical education is most commonly used in this way; however, this denotes rather that "they have participated in the subject area, not studied it." The primary aims of physical education have varied, based on the needs of the time and place. Most modern schools' goal is to make students with the knowledge, skills, capacities, and values along with the enthusiasm to maintain a healthy lifestyle into adulthood. Some schools also require physical education as a way to promote weight loss in students. Activities included in the program are designed to promote physical fitness, to develop motor skills, to instill knowledge and understanding of rules, concepts, and strategies, and to teach students to work as part of a team, or as individuals, in a wide variety of competitive activities. In the United States, the physical education curriculum is designed to allow school pupils exposure to the education with the use of pedometer, GPS, and heart rate monitors. Some martial arts classes, like wrestling in the United States, and Pencak Silat in France and Malaysia, are taught to teach children self-defense and to feel good about themselves. This allows kids through 6th grade to be introduced to sports, fitness, and teamwork in order to be better prepared for the middle and high school age. In 1975, the United States House of Representatives voted to require school physical education classes include both genders. Some high school and some middle school PE classes are single-sex. Requiring individuals to participate in physical education activities,

such as dodgeball, flag football, and other competitive sports remains a controversial subject because of the social impact these games have on young children. The primary aims of physical education have varied, based on the needs of the time and place. Most modern schools' goal is to make students with the knowledge, skills, capacities, and values along with the enthusiasm to maintain a healthy lifestyle into adulthood. Some schools also require physical education as a way to promote weight loss in students. Activities included in the program are designed to promote physical fitness, to develop motor skills, to instill knowledge and understanding of rules, concepts, and strategies, and to teach students to work as part of a team, or as individuals, in a wide variety of competitive activities. In Singapore, pupils from primary school through junior colleges are required to have 2 hours of PE every school week, except during examination seasons. Pupils are able to play games like football, badminton, 'captain's ball' and basketball during most sessions. Unorthodox sports such as tchoukball, fencing and skateboarding are occasionally played. In more prestigious secondary schools and in junior colleges, sports such as golf, tennis, shooting, squash are played. A compulsory fitness exam, NAPFA, is conducted in every school once every year to assess the physical fitness of the pupils. Pupils are given a series of fitness tests (Pull-ups/ Inclined pull-ups for girls, standing broad jump, sit-ups, sit-and-reach and 1.2 km for secondary/2.4 km for junior colleges run). Students are graded by gold, silver, bronze and fail. NAPFA for Year 2 males in junior colleges serves as an indicator for an additional 2 months in the country's compulsory national service if they attain bronze or fail. In Scotland, pupils are expected to do two periods of PE in first year, one in second year and two in third and fourth year. In fifth and sixth year, PE is voluntary. In the Philippines, some schools have integrated martial arts training into their Physical Education curriculum. In England, pupils are expected to do two hours of PE a week in Year 7, 8 and 9 and at least 1 in year 10 and 11. In Wales, pupils are expected to do one hour of PE per fortnight. Nepal has passed through many educational changes recently. It has not gone very far in the sector of education because the educational history of Nepal is very short. Before 1951, it had a monarchy. The monarchy did not wish to provide education to the citizens as it did not wish them to be educated and therefore politically aware. Institution of democracy did not result in a modern educational system; what education there was walked like a lame turtle. After 10 years of democracy the country again plunged into an autocratic monarchy. In 1990 democracy was restored and the education sector started to flourish. Since then, Physical education became part of the school curriculum. At the

primary level (1-5), some minor and local games are taught, like hide and seek and some athletic based local events. In lower secondary level (6-8), the students are taught general concepts on major games like football, volleyball, basket ball, Kho-Kho and Kabaddi. They also learn some athletics like 100m race 100\*4m relay race and some other minor and lead up games. In class Nine and ten it is an optional subject where they specialize in some games like volleyball, basketball, handball, cricket, Kho Kho Kabaddi, Badminton, table tennis and some athletics are also taught. In college it is taught in the education stream. Even though it is included in school curriculum, Nepal is not able to produce any worthwhile products of games and sports for reasons ranging from poverty to decentralized government.

- **Clothing**

The majority of schools require pupils to change into a different set of athletic shoes or go barefoot depending on the sport. Some schools allow students to change into athletic clothes of their own choosing while others require a uniform. A common uniform consists of a white t-shirt and shorts in the school color, but this is not a universal rule. At some Catholic schools, modest clothing is required. For safety, some schools require males to wear a jock strap as part of the physical education uniform. Some schools allow male students to go barechested when they are outside during a hot day. Most uniformed classes require the student to label their clothes with their names. Certain activities require a special uniform. For example, some schools require swimming as part of the physical education curriculum. In this case, students have to wear a bathing suit in either the school color or black with a swimming cap of the same color. Also, in games with two or more teams, students usually have to wear colored jerseys or cape-like garments over the usual uniform as a way of identifying team member. Some schools are more lenient and pupils can wear tracksuit bottoms, three-quarter lengths or even shorts, with a t-shirt of their choice as long as there is no football, rugby etc colours. In Australia, students are often allowed to participate barefoot. Classes are also often held outside on the "oval" or playing field. Because of this, a large-brimmed hat is often a required part of the uniform to protect students from the Sun

**Topic Objective:**

At the end of this topic student would be able to:

- Explain Pedagogy and teaching
- Highlight Secondary School Teachers
- Analyze Professional educators
- Elaborate Teaching around the world
- Define Is Teaching a Profession?
- Know The Trait Model of Professionalism

**Definition/Overview:**

In education, a teacher is a person who teaches; a person, who guides, instructs trains or helps another in the process of learning knowledge, understanding, behaviour or skills, including thinking skills. A teacher who teaches an individual student may also be described as a personal tutor. The role of teacher is often formal and ongoing, carried out by way of occupation or profession at a school or other place of formal education. In many countries, a person wishing to become a teacher at state-funded schools must first obtain professional qualifications or credentials from a university or college. These professional qualifications may include the study of pedagogy, the science of teaching. Teachers may use a lesson plan to facilitate student learning, providing a course of study which covers a standardized curriculum. A teacher's role may vary between cultures. In most countries, some professional teachers teach literacy and numeracy, or some of the other school subjects. Other teachers may provide instruction in craftsmanship or vocational training, the Arts, religion or spirituality, civics, community roles, or life skills. In some countries, formal education can take place through home schooling. Informal learning may be assisted by a teacher occupying a transient or ongoing role, such as a parent or sibling or within a family, or by anyone with knowledge or skills in the wider community setting.

**Key Points:****1. Pedagogy and teaching**

In education, teachers facilitate student learning, often in a school or academy or perhaps in another environment such as outdoors. A teacher who teaches on an individual basis

may be described as a tutor. The objective is typically accomplished through either an informal or formal approach to learning, including a course of study and lesson plan that teaches skills, knowledge and/or thinking skills. Different ways to teach are often referred to as pedagogy. When deciding what teaching method to use teachers consider students' background knowledge, environment, and their learning goals as well as standardized curricula as determined by the relevant authority. Many times, teachers assist in learning outside of the classroom by accompanying students on field trips. The increasing use of technology, specifically the rise of the internet over the past decade has begun to shape the way teachers approach their role in the classroom. The objective is typically a course of study, lesson plan, or a practical skill. A teacher may follow standardized curricula as determined by the relevant authority. The teacher may interact with students of different ages, from infants to adults, students with different abilities and students with learning disabilities.

Teaching using pedagogy also involves assessing the educational levels of the students on particular skills. Understanding the pedagogy of the students in a classroom involves using differentiated supervision to meet the needs of all students in the classroom. Pedagogy can be thought of in two manners. First, teaching itself can be taught in many different ways, hence, using a pedagogy of teaching styles. Second, the pedagogy of the learners comes into play when a teacher assesses the pedagogic diversity of his/her students and differentiates for the individual students accordingly.

### **1. Secondary School Teachers**

Perhaps the most significant difference between primary and secondary teaching in the UK is the relationship between teachers and children. In primary schools each class has a teacher who stays with them for most of the week and will teach them the whole curriculum. In secondary schools they will be taught by different subject specialists each session during the week and may have 10 or more different teachers. The relationship between children and their teachers tends to be closer in the primary school where they act as form tutor, specialist teacher and surrogate parent during the course of the day. This is true throughout most of the United States as well. However, alternative approaches for primary education do exist. One of these, sometimes referred to as a "platoon" system, involves placing a group of students together in one class that moves from one specialist to another for every subject. The advantage here is that students learn from teachers who

specialize in one subject and who tend to be more knowledgeable in that one area than a teacher who teaches many subjects. Students still derive a strong sense of security by staying with the same group of peers for all classes. Co-teaching has also become a new trend amongst educational institutions. Co-teaching is defined as two or more teachers working harmoniously to fulfill the needs of every student in the classroom. Co-teaching focuses the student on learning by providing a social networking support that allows them to reach their full cognitive potential. Co-teachers work in sync with one another to create a climate of learning.

## 2. Professional educators

Teaching may be carried out informally, within the family or the wider community. Formal teaching may be carried out by paid professionals. Such professionals enjoy a status in some societies on a par with physicians, lawyers, engineers, and accountants (Chartered or CPA). Many people look down upon teachers, saying that they are lazy, drop-outs who couldn't get another job. A teacher's professional duties may extend beyond formal teaching. Outside of the classroom teachers may accompany students on field trips, supervise study halls, help with the organization of school functions, and serve as supervisors for extracurricular activities. In some education systems, teachers may have responsibility for student discipline. Around the world teachers are often required to obtain specialized education and professional licensure. The teaching profession is regarded for having a body of specialised professional knowledge, codes of ethics and internal monitoring.

There are a variety of bodies designed to instill, preserve and update the knowledge and professional standing of teachers. Around the world many governments operate teacher's colleges, which are generally established to serve and protect the public interest through certifying, governing and enforcing the standards of practice for the teaching profession. The functions of the teacher's colleges may include setting out clear standards of practice, providing for the ongoing education of teachers, investigating complaints involving members, conducting hearings into allegations of professional misconduct and taking appropriate disciplinary action and accrediting teacher education programs. In many situations teachers in publicly funded schools must be members in good standing with the college, and private schools may also require their teachers to be college members. In other areas these roles may belong to the State Board of Education, the Superintendent of

Public Instruction, the State Education Agency or other governmental bodies. In still other areas Teaching Unions may be responsible for some or all of these duties.

### **3. Teaching around the world**

There are many similarities and differences among teachers around the world. In almost all countries teachers are educated in a university or college. Governments may require certification by a recognized body before they can teach in a school. International schools generally follow an English-speaking, Western curriculum and are aimed at expatriate communities.

- **England and Wales**

Nursery, Primary and Secondary School teachers ranged from 20,133 to 41,004 in September 2007, although some salaries can go much higher depending on experience. Preschool teachers may earn 20,980 annually. State school teachers must have at least a bachelor's degree, complete an approved teacher education program, and be licensed. Many counties offer alternative licensing programs to attract people into teaching, especially for hard-to-fill positions. Excellent job opportunities are expected as retirements, especially among secondary school teachers, outweigh slowing enrollment growth; opportunities will vary by geographic area and subject taught.

- **France**

In France, teachers, or professors, are mainly civil servants, recruited by competitive examination.

- **Republic of Ireland**

Salaries for primary teachers in the Republic of Ireland depend mainly on seniority (i.e. holding the position of principal, deputy principal or assistant principal), experience and qualifications. Extra pay is also given for teaching through the Irish language, in a Gaeltacht area or on an island. The basic pay for a starting teacher is 31,028 p.a., rising incrementally to 57,403 for a teacher with 25 years' service. A

principal of a large school with many years' experience and several qualifications (M.A., H.Dip., etc.) could earn over 90,000.

- **Scotland**

In Scotland, anyone wishing to teach must be registered with the General Teaching Council for Scotland (GTCS). Teaching in Scotland is an all graduate profession and the normal route for graduates wishing to teach is to complete a programme of Initial Teacher Education (ITE) at one of the seven Scottish Universities who offer these courses. Once successfully completed, 'Provisional Registration' is given by the GTCS which is raised to 'Full Registration' status after a year if there is sufficient evidence to show that the 'Standard for Full Registration' has been met. For salary year beginning April 2008, unpromoted teachers in Scotland earned from 20,427 for a Probationer, up to 32,583 after 6 years teaching, but could then go on to earn up to 39,942 as they complete the modules to earn Chartered Teacher Status (requiring at least 6 years at up to two modules per year.) Promotion to Principal Teacher positions attracts a salary of between 34,566 and 44,616; Depute Head, and Head teachers earn from 40,290 to 78,642.

- **United States**

In the United States, each state determines the requirements for getting a license to teach in public schools. Today, all public school teachers must be certified and have a bachelors degree (or five years of college work) except in the case of alternative or temporary certification. The Bureau of Labor Statistics estimates that there are 1.4 million elementary school teachers, 600,000 middle school teachers, and 1 million secondary school teachers employed in the U.S. In the past, teachers have been paid relatively low salaries. However, average teacher salaries have improved rapidly in recent years. US teachers are generally paid on graduated scales, with income depending on experience. Teachers with more experience and higher education earn more than those with a standard bachelors degree and certificate. Salaries vary greatly depending on state, relative cost of living, and grade taught. Salaries also vary within states where wealthy suburban school districts generally have higher salary schedules than other districts. The median salary for all primary and secondary teachers was \$46,000 in 2004, with the average entry salary for a teacher with a bachelor's degree

being an estimated \$32,000. Median salaries for preschool teachers, however, were less than half the national median for secondary teachers, clock in at an estimated \$21,000 in 2004. For high school teachers, median salaries in 2007 ranged from \$35,000 in South Dakota to \$71,000 in New York, with a national median of \$52,000. Some contracts may include long-term disability insurance, life insurance, emergency/personal leave and investment options. The American Federation of Teachers' teacher salary survey for the 2004-05 school year found that the average teacher salary was \$47,602. In a salary survey report for K-12 teachers, elementary school teachers had the lowest median salary earning \$39,259. High school teachers had the highest median salary earning \$41,855.. Many teachers take advantage of the opportunity to increase their income by supervising after-school programs and other extracurricular activities. In addition to monetary compensation, public school teachers may also enjoy greater benefits (like health insurance) compared to other occupations.

#### **4. Is Teaching a Profession?**

For the last 50 years educators have devoted a great deal of energy to the debate over whether teaching can be considered a profession. Unfortunately, this turns out to have been the wrong question, and so led us to the wrong sort of answers. For example, there was a very heated debate in the 1960s and 1970s over whether teachers could organize strikes and still claim that they were members of a professional association, rather than a union. This controversy only makes sense, however, if one accepts that professions are fundamentally different from other types of occupations, and by the mid-1970s, social scientists were beginning to realize that this was not the case. They argued that the professions had changed so much over the past 100 years that there is now little left to distinguish professionals from other workers. If the experts are right and there really is no such thing as a profession any more, then continuing to argue over whether education is a profession is not only wasted effort, it is dangerously misleading.

#### **5. The Trait Model of Professionalism**

The sociological investigation of the professions began in the 1930s with attempts to identify the defining characteristics or traits that distinguished the professions from other occupations. While the precise content of these models varied from one writer to the next

(since, to get published, each investigator tried to say something new), the most commonly cited traits were:

- skill based on abstract knowledge
- provision for training and education, usually associated with a university
- certification based on competency testing
- formal organization
- adherence to a code of conduct
- altruistic service.

A substantial body of research quickly developed in which investigators undertook case studies of various occupations to determine the degree to which each exhibited these traits and, consequently, whether they could be considered as 'true' professions. Popular as trait models were, however, they had no theoretical basis. Most authors simply took the established professions of medicine and law as their starting point and assumed that the unique characteristics of these two occupations accounted for their professional status. But this is an example of circular reasoning: What makes medicine a profession? These six traits. What makes these six traits the defining characteristics of a profession? They are found in medicine, and medicine is a profession. But how do you know medicine is a profession? Well, it has these six traits! And around and around you go! Actually, there is no reason to assume that medicine and law are typical professions. They may be the exceptions rather than the rule; that is, they may be considered professions in spite of having these six characteristics, rather than because of them.

Even if one ignores the tautology, there is nothing in the model which explains why these traits are important. Why focus on these particular traits rather than some others? Indeed, many authors seem to have decided which traits were important on the basis of whether they would strengthen their case for (or against) a particular occupation's claim to professional status: Educators stressed those elements that worked best for teaching, lawyers only those that worked for law. There was little attempt to establish the causal relationships between various elements of the model, so it was never clear which traits gave rise to the others, or whether all the elements arose independently from some unexplained outside force. Furthermore, the traits themselves were never clearly defined, because one was never told precisely how much training was required, how esoteric the theoretical knowledge needed, how restrictive the certification obtained, and so on, before

an occupation could be considered a true profession. Even if one were to take the average length of training in medicine or law (which itself can vary considerably between jurisdictions and among specializations) as the standard, is this an absolute or a relative standard? Does the increasing length of training in an occupation like teaching indicate its growing equality with medicine and law, or merely credential inflation? (For that matter, can the number of years of formal training be equated with the quality of training?) Given the model's inability to precisely define relevant traits, their interaction, or their origins, trait models have been completely discredited

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