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ABSTRACT
        Bright Start is a preschool program designed to assist
caregivers and educators of children ages 2 through 5 years become optimal
facilitators of young children's learning through enhancing the quality of
their interaction with children and through providing mediated learning
experiences. This paper examines the cognitive approach to preschool
curricula and describes characteristics of the Bright Start program. The
program's theoretical basis is described as grounded in the theories of
Piaget, Vygotsky, Feuerstein, and Haywood. The systematic curriculum is build
around six core ideas, presented as curriculum units: (1) "Noticing Our
World," focusing on using the senses to experience the environment; (2)
"Looking Back," emphasizing the ability to reflect on the past and connect
past with present events; (3) "Let's Make a Plan," dealing with thinking
strategically, setting goals, planning, evaluating the results, and making
revisions based on the results; (4) "That's Fantastic," focusing on
developing imagination, cause and effect connections, and hypothetical
thinking; (5) "The Nimble Symbol," addressing the use of symbols and building
a foundation for literacy and numeracy; and (6) "What's the Big Idea?,"
highlighting the main idea and looking for and learning from generalizable
principles. The paper highlights research on the program indicating that
children participating in Bright Start consistently showed superior primary
grade achievement in language, reading, and mathematics. (KB)

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More and more children in Singapore are spending greater parts of their childhood in some kind of preschool institution like the day care center, nursery school, play group and kindergarten. What do we know about the developmental and learning processes that children are exposed to in such institutions? And more specifically, what do we know about how the children's expressions and ways of communicating are acknowledged and respected by the adults who take care of them?

Empirical research explicitly focussing on these issues, is relatively scarce. Some studies tell us that the quality of pre-school institutions vary a great deal but when adminstrators, parents, policy-makers and researchers talk about quality in early childhood programs, one of the most important observations mentioned is teachers' interactions with young children. There is a heavy emphasis on effective teacher interactions with children. Today's parents want teachers/caregivers who are sensitive to and involved with their child and many of them would agree that teacher-child interactions in early childhood classrooms play a key role in promoting quality care for preschoolers.

It was only recently that researchers have begun to more formally document exactly how these interactions take place and how variations in these interactions are related to behaviours and other outcomes in children. We are beginning to sort out how and why teacher-child interactions are important. Studies that focus on the relationship between teachers and children usually address only part of the child's development, mainly

linguistic or cognitive aspects. We are uninformed about the role of the adult in enhancing or undermining typical features of children's way of experiencing and expressing themselves. There is some evidence that children's cognitive development is related to teacher-child interactions and children exhibit higher levels of stress when teachers are harsh, critical and detached but teachers who are sensitive to children's needs and who engage, encourage and verbally communicate with them appear to be nurturing more optimal cognitive, language and socioemotional development. (Kontos and Wilcox-Herzog, 1997)

How frequently do children interact with teachers in the classroom? What kinds of interactions do teachers have with children? The answers to these questions could seem obvious until one thinks of the extent to which adults are outnumbered by children in classrooms. There are too many children for one teacher to handle adequately in a typical preschool classroom. Some children may be ignored by the teacher for a considerably long time. Ensuring positive teacher-child interactions for each child is easier said than done. Teachers are extremely busy people. In one quoted study by Kontos and Wilcox-Herzog (1997) during a lengthy observation, nearly one third (31%) of the children received no individual attention and in 12% of the classrooms, one-half or more of the children received no individual attention.

It has been shown that teachers with more education are more responsive and sensitive in their interactions with children than those with less. With more child care training , the quality of teacher-child interactions is improved. Training is an important predictor of

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involved, sensitive teacher-child interactions . However, differences in training are frequently found to relate to variations in how teachers interact with children. Curriculum models with different theoretical bases have different prescriptions for appropriately adult-child interactions. Different approaches used by the teacher will end up with different ways of interacting with children.

The Cognitive Approach

Presently widely-used curricula for pre-school education of children fall primarily into one of two groups: those with an emphasis on social development, with little academic preparation, and those with a preacademic emphasis that is merely a simplified version of the primary one curriculum. Neither approach is maximally helpful in improving the educability of children. Educators and developmental psychologists have found generally that the strongest and most effective curriculum is that based on a general theory of child development and a specific theory of developmental change. A cognitive curriculum for young children is built on a theoretical base that deals with the nature of learning, child development and intelligence.

Cognitive educators such as Feuerstein (1980) and Haywood (1986) have argued that, by teaching fundamental principles of thought, perception, learning and problem solving, children can become more effective learners. According to Samuels etal (1987) a number of assumptions underlie cognitive education.

1. Cognitive processing in the child can be substantially modified through effective intervention that changes the expected course and outcome of development.

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2. The learning of effective cognitive processes occurs through mediated learning experience (MLE). Mediated learning is the process by which a mediator organizes and interprets the world to a child. When an individual gives meaning to events, helps children select relevant from irrelevant variables, assists in abstracting rules for regularly occuring phenomena, and generally attempts to develop children's abilities to think, that individual is engaged in mediated learning. MLE begins within the family context with parents and significant others passing on cultural norms, values and modes of thought from one generation to another. A lack of MLE, due to a variety of reasons inherent in the mediator or the child, leads to deficient cognitive functioning and low levels of modifiability (i.e. the child is not able to adapt to and learn from interactions in his/her environment) (Feuerstein, 1980).

3. More efficient cognitive functioning can be taught through systematically providing mediated learning experiences. Teachers and parents can provide such experiences across a number of contexts.

Feuerstein (1980) has developed a programme, Instrumental Enrichment, to provide MLE in a systematic way in the classroom for children and adolescents. The general goal of the program is to teach students prerequisites of thinking and learning so that they will learn how to learn and be better able to adapt and adjust to everchanging life conditions. Bright Start is a cognitive program based on mediated learning experience for preschoolers which is built on a theoretical base that deals with the nature of learning, child development and intelligence.

Bright Start is based on the systematic thoughts of at least four theorists:

1. Piaget's stage theory of the sequential and heirarchical development of cognition.

2. Vygotsky's concepts of the social context of learning and the idea that in every child there is a difference between performance shown and potential hidden in every activity. The potential of a higher level of understanding can be approached with guided help from a more knowledgeable adult.

3. Feuerstein's theory of structural cognitive modifiability in that intelligence is flexible and that cognitive functions are compounds of native ability, learning history, attitudes towards learning, motives and strategies. These are acquired through an active role of parents or other adults interacting with children called mediated learning.

4. Haywood's motivational theory of cognition that intrinsic motivation (expressed eg in exploration, novelty seeking and reasonable risk taking) is of particular importance in acquiring and applying cognitive processes.

The Bright Start program

This programme is for parents, caregivers and for their educators and counselors. The purpose is to help caregivers become optimal facilitators of children's learning through both the quality and nature of their interactions and the types of activities engaged in with their children.

According to Lidz (1990) as educators and psychologists we have learned that love is indeed not enough to promote optimal development in children. Research and

observations of what good parents and teachers do has taught us a lot about how to promote thinking, learning and literacy in children. One of these lessons is that neither schools nor homes can or should bear the entire responsibility for children's development. Both home and school need to work together with shared goals and values in order for children to gain the most from these socializing experiences.

There has been a revolution within the field of early education sometimes referred to as the "cognitive revolution". This focus suggests that it is not only important to learn content, but also to learn how to learn and how to take over responsibility for one's learning. There is increasing commitment to helping children become lifelong learners and develop strategies that will enable them to adapt to the everchanging world of new information and opportunities. The primary objectives of a "cognitive" approach to education are for children to become self-regulated learners, to develop a planful, strategic approach to complex and novel situations and to become effective symbol manipulators. The emotional aspect however is not left out as it (eg serious fun and playfulness) remains an important ingredient of good teaching and learning.

Bright Start curriculum is designed as a guide for preschool teacher-education programmes that may take place in a wide variety of settings. It is appropriate for use with caregivers of young children, approximately between the ages of two through five, with or without special needs. In this programme, teachers are encouraged to attend training workshops to master the basic approaches and ideas from the cognitively-oriented curricula. The curriculum promotes metacognitive functioning and the

programmes incorporate a great deal of "learning how to learn" and self-awareness and self-regulation of the learning process.

The formal structure of Bright Start programme requires about eight weeks and the intent is to introduce ways of interacting with children that extend beyond the period. While a certain amount of sequencing is imposed by the eight week structure, there is no necessary heirarchy and a great deal of redundancy is built in. Children like and need repetition. In order to encourage the use of Bright Start ideas beyond the scheduled training time, homework is an integral component and caregivers may recycle through the program and choose from the many activities to reinforce what they have learned from their first exposure. Many of the specific activities are examples that express the basic principles of MLE and teachers are encouraged to develop their own activities and applications of these principles.

The systematic programme is built around six core ideas, expressed as curriculum units:

1. NOTICING OUR WORLD – this focuses on learning to use the senses to experience the environment; learning what to notice, how to look, and how to talk about what is noticed. This includes attention to patterns and sequences.

2. LOOKING BACK – this unit emphasizes the ability to reflect on the past and to connect past with present events. This also focuses on the importance and relevance of cultural history and roots.

3. LET'S MAKE A PLAN – this focuses on learning to think strategically, to set goals, to make a plan, to evaluate the results and to make changes in response to evaluation.

4. THAT'S FANTASTIC – this focuses on developing imagination, cause and effect connections, and hypothetical thinking. Children are encouraged to make "what if" speculations and to entertain strange combinations and alternative approaches.

5. THE NIMBLE SYMBOL – this directly addresses the use of symbols in our environment and focuses on laying a foundation for literacy and numeracy.

6. WHAT'S THE BIG IDEA? – the focus is on getting the main idea and looking for and learning from generalizable principles.

The objective is for each unit to have a focus but not to be entirely independent. The activities and ideas should build upon each other, with vocabulary from one unit used during activities of another.. Each unit introduces ideas that can be carried over into all of the others, as well as, to the daily ongoing interactions with children. The more these ideas become a natural part of natural interactions with children, the more effective they will be in promoting the development of children. It is hoped that eventually the caregivers will be able to independently apply their ideas in their own situations without too much reliance on the programme itself. Likewise, the children under their care will take over and be in the teacher's role interacting with the caregiver as well as with other children.

Bright Start curriculum in the early childhood classroom is designed to develop self-confidence, school readiness and thinking processes. It helps children discover how and when such behaviour as self-control, observing, counting, ordering, comparing and using spatial referents can be effective in solving problems. Current research indicates that

children who participate in Bright Start consistently show superior primary grade achievement in language, reading and mathematics. Ultimately it invites parents and teachers to feel good about what they are already doing, to learn some new things that may help their children become better learners and to have a basis for thinking about their very important role as their child's primary mediator.

A BRIGHT START FOR THE EARLY YEARS

UNIT OBJECTIVES

UNIT 1: Noticing Our World
Objectives:
-using our senses to experience the environment
-developing a vocabulary to share our experiences
-learning how to look and what to notice; detecting the special features of what we experience.
-detecting and producing patterns
-detecting and producing sequences
-making groups based on a shared characteristic

UNIT 2: Looking Back
Objectives:
-connecting present with past experiences
-building awareness of the family history and cultural roots
-building awareness of family interrelationships
-developing cause/effect thinking

UNIT 3: Let's Make a Plan
Objectives:
-learning systematic exploration and organisation- thinking ahead about a goal.
-planning the steps to reach the goal – determining if there is a necessary sequence
-thinking about effective strategies
-carrying out the plan
-evaluating how the plan worked.
-making changes to improve the plan.

UNIT 4: That's fantastic!
Objectives:
-differentiating between real and imagined
-appreciating the importance of imagination and fantasy
-developing hypothetical thinking
-thinking of alternatives
-making predictions

UNIT 5: The Nimble Symbol
Objectives:
-recognising the existence of symbols
-developing the ability to create symbols
-developing the ability to use symbols

UNIT 6; What's the Big Idea?
Objectives;
-getting the main idea from listening
-abstracting general principles and rules

For each unit there are many ideas for activities related to the objectives. This is to provide many choices for you. Please select two to three each week that appeal to you and that you think may appeal to your child. Do not try to do everything.

Some examples:

Focus
1   using senses and detecting details
2   noticing and producing patterns and sequences
3   noticing and producing groups; making comparisons

Focus
1   present/past connections; cause and effect thinking
2   family history and cultural roots; family relationships

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