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ABSTRACT

To aid school adjustment of children from low income families of Mexican descent, this program has developed new methods for teaching English as a second language while preserving and reinforcing children's use of Spanish. The classroom model emphasizes learning cognitive concepts and exploring the child's attitudes towards these concepts. Sensory-perceptual skills and language skills are systematically presented to develop children's thinking processes. An instructional program, based on this model, consists of a sequenced series of lessons, initially presented in Spanish and later in English. This developmental approach includes training in visual, auditory, and motor skills. The child learns a sequential pattern of language and speech concepts in both Spanish and English, with content selected to relate to the child and his environment. Instruction is individualized when appropriate. It is important that teachers structure and sequence learning activities which match individual learning abilities so that each child may develop to his potential. (DR)

SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY

AN EARLY CHILDHOOD EDUCATION MODEL - A BILINGUAL APPROACH

Shari Nedler

Introduction

It is now a generally accepted premise that where the school curriculum and the expectations for the first grade students are developed primarily on middle-class, Anglo American values, the child who comes to the school from a different culture will be at a disadvantage. Where the language of the home and the language of the school are different, the problems are multiplied for the child. Failure in his early school life places the child in a disadvantaged position for successful continuation of his education.

A primary purpose of the Southwest Educational Development Laboratory's Bilingual Early Childhood program is to add to the knowledge of and skill in dealing with factors influencing early school adjustment of children from low-income families of Mexican descent. A major objective is to develop new methods for the teaching of English as a second language to Spanish-speaking children between the ages of three and six, while at the same time attempting to preserve and reinforce the use of their mother tongue. During the three years in which the children are enrolled in the program, the goal is to provide the foundation for truly bilingual skills.

Language is not conceived of as an isolated experience to be set apart from the total program, but rather as an integral portion of the entire curriculum. A thoroughly planned program becomes necessary in order to help the child relate meaningfully to these various aspects of learning.

Rationale

During the past decade, there has been general acceptance of the idea that intelligence is not fixed or determined at birth, but that much depends on the environment of the child, particularly the kind of intellectual stimulation he receives during his early years. Review of the literature reveals that certain kinds of experiences and stimulation are essential for the child's physical, emotional, and intellectual growth. Research indicates that early manipulation of his environment can have maximum impact on accelerating the development of intellectual and social competencies (Bloom, 1964). A logical extension of these findings has been to develop various intervention programs for disadvantaged young children in order to counteract the cumulative deterioration of their academic and intellectual performance.

Traditional preschool programs have focused primarily on the social and emotional development of the child. In traditional programs, children are provided with many opportunities to carry on play and manipulative activities, engage in creative art and music experiences, take field trips, listen to stories, and expand their experiential background. The teacher supervises and interacts with the class, but the children are free to engage in those activities they find most appealing.

Specifically, emphasis is placed on:

- Peer-group relationships -- getting along together
- Spontaneous sensory perceptual experiences
- Language being used as a social rather than cognitive tool
- Concern with immediate goals and present time orientation

Available research (Anderson, 1940; McCandless, 1967) indicates there is no significant difference in the academic achievement of these children whether they have had preschool training or not. Why then, are these

children typically the "achievers" in our educational system? Many of the critical variables are to be found in the home, within the family structure and patterns of interaction. The low adult-child ration, the quality and quantity of language directed toward the child, and the high level of positive expectations for achievement reinforced by parental praise and encouragement all contribute to the child's achievement level.

The environment of the disadvantaged child presents a different picture. Generally, this environment can be described as highly unstructured. Since these families are hard pressed to meet immediate needs, the present takes priority over the future. The language directed toward the child is used more for controlling behavior than for explaining, describing or instructing. The child learns the values of cooperation and patience at an early age. He must get along with his peers, if he is to survive in the family system.

The disadvantaged child needs an educational program that will complement his environment. We cannot assume that these children have developed an organized fund of sensory and motor learnings which are the base from which language and conceptual skills evolve. In many cases, the homes of these children have failed to nourish them in health, in emotional stability and in intellect. Their behavior indicates that they have not developed the skills essential for listening, focusing and thinking through the answers to simple problems.

The Southwest Educational Development Laboratory's Bilingual Early Childhood Education model has evolved from an analysis of the needs of the specific target population. The classroom organization reflects a concern for providing an environment characterized by:

. Neatness and order

- A high degree of adult-child contact
- Opportunities to use language as a tool of thought
- Opportunities to achieve and compete in a supportive setting
- Attention directed to long-range goals and future-time orientation

The instructional program provides planned learning experiences which should lead to the development of intellectual and social competencies. Sequences geared to the child's level of achievement enable him to reach specific educational goals. If the match is right, the child will not only acquire the necessary cognitive skills, but also a sense of competence and self-esteem which can only enhance his socio-emotional development.

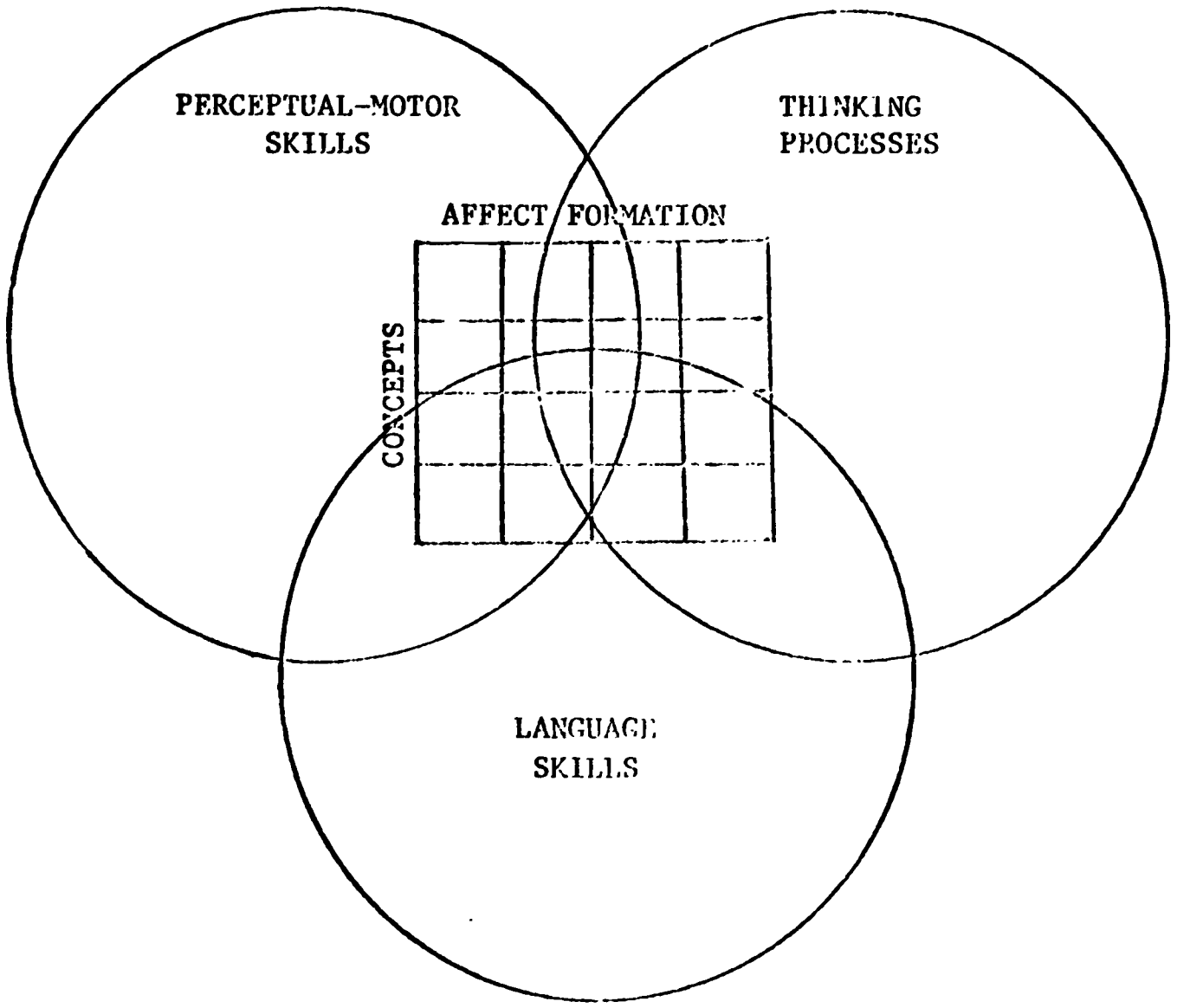
Conceptual Model

Four structured components are represented in this model:

- Concept-Affect Formation -- The specific concept to be acquired with major attention directed toward the child's attitudes and feelings concerning his mastery of these concepts.
- Sensory-Perceptual Skills -- Development of the skills necessary for processing information through the various sensory channels available to the child.
- Language Skills -- Development of linguistic competence in both English and Spanish.
- Thinking Processes -- Generalization and application of sensory and linguistic skills for conceptualizing, reasoning, and problem solving.

Concept-Affect Formation

The affective development of the child must be of primary concern to the educator. The child's belief in himself as a person of worth, his expectancy of success and his feeling that intellectual competence



CONCEPTUAL MODEL

BILINGUAL EARLY CHILDHOOD EDUCATION PROGRAM

is a desirable goal are of paramount importance and are directly related to increased concept mastery.

Concept-affect formation refers to those concepts the child acquires within the program structures and the feelings that develop as he endeavors to master these concepts. The classroom environment is carefully structured so that the child learns for himself that persistence, attention, curiousity, and independent problem solving contribute to competent performance and are desired behaviors. By carefully matching learning encounters to the child's level of development, behavior that is self-initiated and intrinsically motivated leads him through successively complex learning experiences that increase his knowledge and enhance his self-concept.

The development of sensory-motor skills is supported by a multisensory approach to learning that involves sensitizing every channel of communication available to the child. These include those channels which receive information -- visual, auditory, and tactile -- and those expressive means by which the child responds -- vocally, graphically, or through motor responses.

Appropriate learning experiences for each child include planned exposure to a variety of pre-verbal and verbal percept al-motor activities that are pre-requisites for meaningful learning. Many of these activities -- involving simple visual, auditory, and tactile discrimination -- are not usually taught because they are skills which develop through maturation or casual experience in an enriched environment. This program structure focuses on a sequential order of presentation that provides the opportunity for the necessary training experiences.

Language skills require that the child be competent in the areas of lexicology, phonology, and syntax. The disadvantaged Mexican American child comes to school with language deficiencies in his native language, as well as English. In comparison to the more advantaged Mexican American

child, his language skills are severely restricted and he lacks the basic knowledge necessary for abstract language activities. A preschool program geared to these specific needs must include programmed language training. Specific vocabulary to be mastered prior to entering first grade has been identified and is introduced within the context of planned, meaningful learning experience. Activities related to recognition, discrimination, and production of phonemes are an integral part of the program, as well as the use and response to sentence patterns of increasing complexity.

The systematic presentation of concepts, perceptual motor, and language activities are designed to support the development of thinking processes. Generally, the disadvantaged child not only enters school inadequately prepared for the typical language tasks of the early grades but he is also severely handicapped in his capacity to use language as a tool in conceptualizing, reasoning, and problem solving. Attention is focused, through program activities, on the acquisition of cognitive skills necessary for abstract thinking.

Guilford (1966) has identified five major groups of intellectual abilities. These levels of operations or processes performed are:

- Cognition -- The discovery or rediscovery of information including comprehension and understanding.
- Memory -- The retention or storage of information.
- Convergent thinking -- The generation of new information which leads to the right or conventionally accepted answer. In this case, the given or known information usually determines the correct response.
- Divergent thinking -- The generation of new information from known information with the emphasis on variety and quantity of information. In this case, thinking goes in a variety of directives, with no real "right" answer being sought.
- Evaluative thinking -- The intellectual process by which judgments and decisions are made regarding the goodness,

> correctness, adequacy, or suitability of information, based on some criterion of consistency and/or goal satisfaction that resulted from productive thinking.

Beginning with the development of cognitively directed perceptions, the skills needed for making observations meaningful in analyzing the surrounding "world" are programmed into lessons through carefully delineated questions related to the learning experience. Expansion of this ability to handle the coding process, using language as the chief means for abstracting and internalizing an almost endless number of properties, forms the base for the development of abstract thinking skills. Within this framework of an integrated instructional program, the child generalizes the skills that he acquires and applies them to problems requiring symbolic thinking.

Instructional Program

An instructional program, based on this model, has been designed for three-, four-, and five-year old Mexican American children. To date, five major training areas have been developed for the curriculum:

- Visual training
- Auditory training
- Motor training -- gross and fine
- English language instruction
- Expanded language instruction

Skill outlines representing three-year objectives have been specified for each training area. The curriculum consists of sequenced series of lessons beginning with the lowest order of skill competencies and preceding systematically to higher level tasks. All learning activities are initially presented in Spanish. When the child has demonstrated mastery of the basic concepts in his native language, lessons are then systema-

tically presented which focus on teaching the same concepts in the second language. Each activity is designed around a behavioral objective that relates to a higher order skill and describes in behavioral terms what the child should be able to do as a result of the particular learning experiences. The instructional activities have been organized into weekly units determining the conceptual content. Whenever possible, lessons in all program areas have been planned to correlate with the vocabulary being introduced in the unit. Many of the concepts will be unfamiliar to the child and he cannot be expected to fully master these concepts in just one instructional activity. Utilization of the unit approach provides opportunities for the child to apply these concepts within other contexts.

The units have been carefully selected so that the content relates meaningfully to the child's experience background. Criteria for selection of concepts and media of presentation are based on sequential continuum of variables:

Motivation

Extrinsic motivation.....Intrinsic motivation

Immediate reward.....Delayed reward

Concrete reward.....Verbal reward

Teacher evaluation.....Self evaluation

Teacher initiated learning.....Discovery learning

Conceptual Mastery

First language.....Second language

Self.....Others.....Things

Familiar.....Related.....Unfamiliar

Concrete....Two dimensional representation...Abstract symbol

Simple.....Complex

One variable.....Few.....Many

Perceptual.....Conceptual

Teaching Techniques

Individualized instruction.....Group instruction

Didactic presentation.....Inquiry mode of presentation

Short instructional period.....Extended instructional period

Teacher talk.....Peer talk

Visual Program

The child progresses in a developmental manner from sensation through perception to conceptualization. On the level of sensation, input can occur without the child's attaching any meaning to the stimulus. On the perceptual level, details are perceived, discriminated, and integrated. As specific properties are gradually categorized and classified, a concept is formed. This concept is stored (memory) and can be retrieved when necessary. With this in mind, the lessons in the Visual Training Program have been developed to aid the child not only in perceptual maturation, but also in concept formation.

The reciprocity of psycholinguistic functions makes it difficult to isolate various abilities either for purposes of evaluation or for training. However, some attempt must be made educationally. The abilities may be categorized as: perceiving position in space, eye-hand coordination, figure-ground perception, perceptual constancy, and analyzing spatial relationships. The Visual Training Program develops the child's total visual-motor function and includes training in visual-motor memory and sequence, and in the ability to effect visual closure.

Auditory Program

The normal development of language comprehension depends upon the normal functioning of auditory processes for receiving and transmitting sound and for perceiving, remembering, and integrating experiences.

Researchers have consistently reported that educationally disadvantaged children learn less from what they hear than do middle-class children. They tend to have poor attention spans and have much difficulty remembering and following the directions of a teacher. Much of a child's time in the classroom is spent listening. The generally inadequate communication process in a disadvantaged home fosters the inability of the child to attend to verbal instructions and make proper interpretations. He is more accustomed to "tuning out" than to listening.

An attempt has been made to include all areas of auditory development, beginning with gross screening for auditory activity and working toward discrimination and production of speech sounds. Since educationally disadvantaged children have particular difficult_ with auditory memory, emphasis has been placed on this area. Emphasis also has been placed on the discrimination of English speech sounds which give Mexican Americans difficulty in speaking English.

Through the developmental sequencing of auditory skills the necessary experiences are presented which are needed to develop weak areas of auditory learning and to develop necessary language skills.

Motor Program

Research clearly shows the relationship of adequate motor development and body image development to later academic achievement. The Motor Training Program has been designed to detect possible motor deficiencies and to develop adequate motor skills for later academic achievements.

Much of the research directed to the characteristics of disadvantaged children shows that these children are generally not deficient in gross motor skills. Ir developing the Motor Training Program, emphasis has been placed on gross motor skills only as they directly relate to developing body awareness, visual-motor skills, and fine motor coordination basic to higher levels of academic achievement.

English Language Program

The mastery of a second language for the educationally disadvantaged child who comes to school speaking only Spanish, another language, or a particular dialect, presents special kinds of problems. Most writers seem to agree that the pattern of speech and the language concepts learned by the use of Spanish as the primary language interfere with the correct speaking of English. There are several linguistic reasons for this -- the sound differences between the two languages, differences in concepts, omission of specific final consonants, the use of future tense, the use of verbal inflection to indicate certain grammatical concepts, and rhythm and intonation problems. Children who speak a local dialect which differs considerably from standard English often have similar linguistic problems.

The rationale for the development of oral language skills includes a vocabulary list of approximately 2,800 words suitable for use at the pre-school level for the non-English-speaking child. This core vocabulary, based on previously published word lists, represents those words which research indicates an average English-speaking six-year old will have in his vocabulary when he enters first grade.

Planned language lessons are presented regularly. The lesson plans detail the hierarchy of presentation. New vocabulary and concepts are introduced accompanied by meaningful demonstrations designed to appeal to

the preschool child. Specific concepts and syntactical structures are taught; sounds in particular words which are apt to cause distortion of meaning if not recognized are given special attention; and generalization of this learning is programmed through careful planning of activities in other training areas which relate to the unit selected for that particular week. Adaptation of this technique of working with alternating small and large groups within a structured framework, provides opportunities for related experiences, extended drill, pattern practice and questions and answers leading to immediate, corrective feedback to the child.

Expanded Language Program

The Expanded Language Program begins by training the child to understand and produce simple language forms in his native language. As these skills develop, learning experiences are presented in which he must demonstrate the ability to understand and produce elaborated language at first using Spanish and eventually English. Gradually, he will be able to describe objects, narrate events, generalize, explain and predict a variety of ideas related to these objects and events. In order to use language effectively for specific purposes, the child must learn to communicate with himself and others through discussions, through fantasy, and through dramatic play. These skills will enable him to use language and to analyze, transform, and evaluate sounds, vocabulary, and structure related to objects, events, and ideas.

A behavioral classification scheme developed by Gerlack and Sullivan (1967) provides a functional framework for describing and categorizing those student behaviors related to cognitive tasks selected for inclusion in the Expanded Language Program.

Performance Terms:

Identify - The learner indicates membership or non-membership of specified objects or events in a class when the name of the class is given.

Equivalent terms and phrases subsumed under the term "identify": select, distinguish between, mark, match.

Name - The learner supplies the correct verbal label (in speech or writing) for a referent or set of referents when the name of the referent is not given.

Equivalent terms subsumed: label, list.

Describe - The learner reports the necessary categories of object properties, events, event properties and/or relationships relevant to a designated referent. The teacher should describe in advance the learner responses that will serve as acceptable descriptions, although he should also accept other given descriptions that he deems correct but did not anticipate.

Equivalent terms and phrases: define, tell how, tell what happens when.

Construct - The learner produces a product (e.g., a drawing, article of clothing or furniture, map, examples of a particular concept, etc.) which meets specifications given either in class or in the test item itself.

Equivalent terms: prepare, draw, make, build.

Order - The learner arranges two or more referents in a specified order. The learner may be required to name or describe the referents in order himself, or a group of referents may be provided for him to order.

Equivalent terms: arrange in order, sequence, list in order.

Demonstrate - The learner performs the behaviors essential to the accomplishment of a designated task according to pre-established or given specifications. The learner may be required to provide a verbal description to accompany the performance.

Equivalent terms and phrases: show your work, show the procedure, perform an experiment, perform the steps.

The content for lessons has been very carefully selected to relate to both the child and to his environment. Using the content of the lessons as

a tool, the child's competency to manipulate language in situations requiring various levels of cognitive skills should develop and emerge. Hopefully, each child will be able to classify problems, think flexibly in order to see several possible solutions to a problem, evaluate various alternate actions, and recognize when a problem has been solved.

Evaluation

Classroom performance tests have been developed for each instructional unit. These are designed to provide objective information regarding each child's level of performance as it relates to what has been taught in the classroom. Analysis of classroom performance, teacher observations, and objective test data enables the teacher to assign children to smaller groups based on ability levels. These groupings are flexible and are varied for different activities. The objective of grouping is to provide opportunities for each child to experience successful mastery of learning tasks geared to his ability to achieve.

Teachers must be prepared to work effectively with groups of children representing various ability levels. These children cannot be taught as though they: 1) had a common experiential background; 2) had a common repertoire of behavior; 3) had adequate attention spans; 4) had similar motivation to achieve; 5) had the skills necessary to process information adequately and meaningfully.

Strategies of teaching must be mastered that enable a teacher to individualize instruction whenever it is appropriate to do so. These strategies deal with the analysis of learning, the analysis of techniques used in the past to reach particular objectives, methods of communicating with children, and the assessment of progress made by the child as he

works through the presented tasks. Specific teaching skills can be identified for inclusion in this cyclical process.

Analysis of Learning Status

The teacher must be able to observe and evaluate the child's level of functioning. Individual analysis of the child's error pattern will enable her to assess accurately his present performance level.

Analysis of the Learning Task

Teachers should be able to identify and state clearly the desired terminal behavior. The ability to perform a component analysis of the terminal behavior as well as select the appropriate behavior entry point for the child is essential. Finally, the teacher must develop the instructional tasks designed to enable the child to achieve the objective.

Matching Specific Learning Tasks to Learning Status

The teacher must constantly review the learning status of each child in the class. Grouping and regrouping for individualized instruction creates an environment that is responsive to the needs of the children. Careful scheduling for the class as well as the adults in the room is an essential prerequisite for the successful "match."

Presentation

The physical setting for any instructional activity is critical. Each child must have a clear view of the teacher and the materials if he is to remain involved in the lesson. Demonstrations to the group, in which the teacher can illustrate concretely and verbally the conceptual content, are essential. These can be extended to include role playing

and modeling. The teacher can present the information didactically or she can elicit desired responses through the use of pacing and prompting techniques or through the use of elaborated or simplified questions.

In working with disadvantaged children, specific techniques of presentation include:

- Accuracy and precision in the teacher's use of language
- Selection of clear referents
- Presence of stimuli that can be verified
- Introduction of alternate speech patterns that are appropriate for communicating the basic concept
- Selection of key concepts for communication purposes

Responses

There are various ways of eliciting responses from young children. Teachers must be thoroughly familiar with these various techniques and their applications.

Reflecting - If a child is doing something but not saying anything, the teacher can reflect back to the child a description of his own activity.

Expanding - When the child says something, one word or a phrase, the teacher can incorporate into her sentence whatever the child has said. She gives back to him a fully expanded sentence.

Extending or Expatiation - The teacher provides a related statement to what the child has said.

Teacher initiative - The teacher can assume the initiative for eliciting a response by calling the child's attention to something occurring in the classroom.

Facilitating Generalization and Transfer

The ultimate goal in working with young children is the internalization of learning. This cannot occur unless the child acquires the

abilities of generalization and transfer. Skilled teachers must learn to program the environment so that opportunities for generalization and transfer are built into the instructional program. She must be aware of the various channels of communication open to the child, the range of modalities from concrete to abstract symbols, the value of planned ancillary experiences as well as the integrative experiences that are selected by the child.

Assessing Behavioral Change

Throughout the process outlined above, the teacher constantly observes and evaluates the child's progress as he participates in the various learning tasks. Assessment and analysis of results provide the necessary guidelines for decisions related to recycling, which involves rebuilding of tasks and regrouping of the class.

It is essential that educators working with this instructional program understand the rationale of the model and its relation to the structure and sequence of the learning activities. The specified objectives relate to essential skills and concepts that the disadvantaged child must acquire if he is to move successfully through the educational system. The ultimate responsibility for implementation of this program lies with the classroom teacher. Her task is to match the activities to individual learning abilities so that each child may develop to his fullest potential and acquire the competencies necessary for educational and personal growth.

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