The objective of this study was to provide intensive, consistent experience in the following developmental areas: relation to objects and vocal and gestural imitation. The curriculum was developed in an inner city industry-based day care center with 14 infants aged 8 to 19 months initially. The Hunt-Uzgiris Scales measuring development in these areas, the Development of Schemas in Relation to Objects, and the Development of Vocal and Gestural Imitation, were administered to each infant. Procedures were developed which emphasized activities at the infant's level of development while introducing experiences at the next developmental level and repeating previous activities. These procedures were developed and carried out 2 half days per week during 4 semesters. Continuous written observations and several video tapes were made of instructional procedures and infant responses. The observational data indicate that during the course of a semester each infant progressed a minimum of one step along a scale and was capable of mastering a wide range of experiences at each step. Thus, the Hunt-Uzgiris Scales provided a reasonable starting point for the development of a set of intensive and coherent experiences at each developmental level.
THE DEVELOPMENT OF AN INFANT CURRICULUM

by

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OBJECTIVE

The objective was to develop a curriculum intended to affect certain areas of development, namely relation to objects and vocal and gestural imitation, areas in which it is considered necessary for infants to have intensive and consistent experience. These areas of development were selected because of the central significance accorded to them by Piaget in his work on the development of thinking. The objective was not to speed up the infants' development but to ensure that a solid experiential base was provided for the development of these important cognitive processes.

The curriculum was developed in an inner city industry-based day care center with fourteen infants aged eight to nineteen months initially. The day care staff requested help with the infant curriculum. Affective experiences and physical care of the infants were well handled by the staff, but questions arose as to the appropriate cognitive experiences for an infant program. We therefore focused on cognitive development, specifically with the intention of providing coherent patterns of stimulation in relation to objects and their exploration and giving adequate and consistent opportunities for vocal and gestural imitation so that each infant performed a variety of behaviors appropriate to each developmental level.

PROCEDURE

The two Hunt-Uzgiris Scales designed to measure development in these areas, the Development of Schemas in Relation to Objects, and the Development of Vocal and Gestural Imitation, were administered to each infant. Then a pattern of working with individual infants was developed which emphasized activities at the infant's level of development while introducing experiences at the next developmental level and repeating previous activities. These procedures were developed and carried out two half days per week during four semesters by students in an Early Childhood Curriculum Development Practicum. Continuous written observations (and several video tapes) were made of instructional procedures and infant responses.

The Hunt-Uzgiris Scales incorporate Piaget's descriptions of infant development into a hierarchical ordering of behavior progressing from simple to complex. An infant ordinarily can perform all the behaviors up to a certain point in the Scale and is unable to perform any behaviors beyond that point. The two Hunt-Uzgiris Scales provided the necessary starting point for the development of a set of intensive and coherent experiences at each developmental level.

During the first semester of 1970-71, the curriculum development project focused on vocal and gestural imitation, and the sample included seven infants aged ten to nineteen months at the beginning of the semester. Three types of procedures were utilized in relation to imitation, first the procedures for the administration of the two parts of the Imitation Scale, Vocal and Gestural Imitation, second the procedures for developing experiences at each level of the Scale, and finally the procedures for selecting and presenting the appropriate experiences for each individual infant.

The administration of the Imitation Scale involved determining the infant's approximate level on the Scale by asking the staff and observing the infant's behavior. Then activities at that level and the next level were presented to the infant to determine the highest level of performance. The infants generally completed all the responses up to a certain level on the Scale and did not make any responses at a higher level, but occasionally a response at a lower level...
After each infant's level on the Scale had been determined, activities at that level were introduced for the infant to imitate. These activities were repertoire of derived from the vocal and gestural responses of all the infants exhibited individually, with each other, and with the staff. Once the variety of behavior at a particular level had been determined, it was possible to develop new activities similar to the responses the infants were known to be able to perform.

Once a range of activities at each level of the Scale had been developed, it was necessary to determine which of these activities were appropriate for a particular infant. The pattern of working with each infant was to start with the imitative responses the infant was known to perform and move back and forth between these responses and new activities closely related to the familiar ones, thus gradually expanding the repertoire of the infant's imitative responses at a particular level of the Scale. The infant moved on to the next level of the Scale after he had performed a range of activities at his level and was beginning to be able to imitate activities at the next level which were introduced occasionally. A few infants missed a lower step on the Scale and activities at this step were mixed in with the higher level activities, until the infants could perform them consistently. The following is an example of the selection of appropriate experiences for an infant at Level 3 on Gestural Imitation, the Imitation of unfamiliar gestures visible to the infant. First the infant was presented with an unfamiliar gesture very similar to the familiar one he already could imitate (tapping the palm of the hand when he could tap his whole hand). Then, a more complicated unfamiliar gesture was presented (tapping the fingers). If, at any
point the infant could not respond, then we went back to a gesture he could imitate. In this sequence, the infant was able to imitate the unfamiliar tapping of the palm gesture, but continued to tap his palm when presented with the more complex finger tapping gesture. We went back to the palm tapping, and the infant continued to imitate this gesture. This type of pattern starting with the infant's responses and building on them and then returning to the original responses was typical of the curriculum procedures.

RESULTS AND IMPLICATIONS

The observational data indicate that, during the course of a semester, each infant progressed a minimum of one step along a Scale and, more importantly, was capable of mastering a wide range of experiences at each step. Thus, the Hunt-Uzgiris Scales could be utilized as the basis for the development of a variety of activities that infants successfully performed at each developmental level. Further work needs to be done to determine whether day care staff members can apply these curriculum procedures in their daily work with infants.

The Scales also provide an organized set of behavioral observations on each infant. This observational information can be used by day care centers in a variety of ways: for in-service staff training, for curriculum planning, and for reporting infant behavior and progress to parents.

Finally, the observational information on infant behavior in small groups in a day care setting gained from this study can be used in other theoretical and empirical work. One of the findings of significance for other work concerns the application of the Hunt-Uzgiris Scales to this sample of infants. The Scales
could be applied, but in some areas the infants exhibited behaviors which indicated the need for additional steps on the Scales. Whether these additional behaviors can be shown to exist among a larger and more varied sample of infants remains to be seen.