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ABSTRACT

The study was undertaken to determine the possibility of a relationship between the selected traits of cognitive ability, conceptual development, emotional maturity, and perceptual-motor development in disadvantaged kindergarten children, since the knowledge of the relationship between traits might make it possible to strengthen a child's deficiencies in one area through training in a related area. All incoming kindergarteners in an urban elementary school in a small city in Westchester County, New York were screened early in kindergarten using the Peabody Picture Vocabulary Test, the Boehm Test of Basic Concepts, and the Goodenough-Harris Drawing Test. A significant positive correlation between each of the selected traits was found. (Author/MS)

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The Relationship between the Cognitive Conceptual Emotional,
and Perceptual-motor Development in Disadvantaged Kindergarteners

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Cognitive, Conceptual, Emotional
and Perceptual-Motor Development in Disadvantaged Kindergarteners

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The study was undertaken to determine the possibility of a relationship between the selected traits of cognitive ability, conceptual development, emotional maturity, and perceptual-motor development in disadvantaged kindergarten children, since the knowledge of the relationship between traits might make it possible to strengthen a child's deficiencies in one area through training in a related area. All incoming kindergarteners in an urban elementary school in a small city in Westchester County, New York were screened early in kindergarten using the Peabody Picture Vocabulary Test, the Boehm Test of Basic Concepts, and the Goodenough-Harris Drawing Test. There was a positive correlation between each of the selected traits and another which was significant.

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Screening programs for diagnostic and prescriptive teaching have been introduced in many school districts, particularly in those which disadvantaged youngsters attend. A variety of instruments are being used to measure development of different traits. The purpose of this study was to investigate the relationship between cognitive, conceptual, emotional, and perceptual-motor development in disadvantaged kindergarteners.

A review of the literature seems to indicate a consensus that many of our present measuring devices do not adequately apply to culturally disadvantaged children since depressed levels are indicative of deprived environment and not of poor ability (Scholnick, et.al., 1968; Jacobson, et.al., 1971; Thomas, 1971; Orn & Das, 1972). Lingren (1971), Yates, et. al. (1971), and Cohen, Money, and Uhlenhuth (1972) performed studies using drawing tests. In each study these tests were found to be unreliable measurements for psychodiagnostic purposes. At best they measure visual-motor coordination and artistic ability. These studies seem to indicate problems with interpretation of test scores and an inability to come to accurate conclusions on the basis of these tests.

This study was undertaken to determine the possibility of a relationship between the selected traits of cognitive ability, conceptual development, emotional maturity, and perceptual-motor development in disadvantaged kindergarten children, since the knowledge of relationships between traits might make it possible to strengthen a child's deficiencies in one area through training in a related area. On the other hand, zero correlations or weak correlations may indicate inaccurate measurement or independence of traits.

All incoming kindergarteners were screened early in kindergarten in an attempt to meet individual needs of youngsters. The school district selected the Peabody Picture Vocabulary Test (PPVT) to estimate intelligence,

the Boehm Test of Basic Concepts to measure conceptual development, and the Goodenough-Harris Drawing Test to estimate emotional and perceptual-motor development; the last instrument was scored independently two times. On the basis of test scores, learning groups were to be formed and special groups were to be selected for extra work with district reading teachers.

The PPVT and the Goodenough-Harris were administered individually. The Boehm test was administered in groups of six to eight except when the classroom teacher indicated possible behavior problems; then, those children were taken in smaller groups for testing. Form A was administered first; then, at a later time, Form B was given.

The children were removed from their regular classrooms by the examiners and brought to the reading room for the testing sessions. They were randomly selected throughout the day for testing. Testing took approximately six weeks to complete and was accomplished within the first two and one half months of the school year. Many children were apprehensive at first about leaving their familiar classroom environment to go with unknown adults. However, the examiners were friendly and did their utmost to put the children at ease. Time was taken to introduce themselves and to talk for a few minutes with the children before proceeding with the tests. After the first testing session, the examiners found most of the children eager to return.

The procedure and materials to be used were explained carefully for each test prior to each examining session. Help with writing materials and turning pages was provided. Children were taught how to make an "X" if they did not know the symbol. Questions unrelated to test items were answered. Encouragement in the form of words of praise, smiles, and occasionally candy was given. All tests were administered with strict adherence to manual instructions. Care was taken to space children far enough apart to reduce copying during the group testing sessions, although copying was not entirely eliminated.

The subjects who participated in this study were all the children comprising the entire kindergarten enrollment of an urban elementary school. The school was located in the inner city area of a small city in Westchester County, New York. Children ranged in age from four years, ten months to six years, eleven months. It was not possible to obtain a complete battery of scores for each child since some children transferred out of the school and district before testing was completed and a few more enrolled after half the testing was begun. Data on the three tests were collected for 82 children, 37 girls and 45 boys. Almost all of the children were Black. A few were of Spanish descent, Cuban or Puerto Rican, for whom English was a second language, Indian, and Oriental; only four youngsters were white and American-born. Nearly all of the pupils were disadvantaged. Approximately half of them had attended Child Development Center nursery schools prior to kindergarten.

The instruments were selected by the school district and were not necessarily the best choices for screening youngsters. The PPVT is a highly questionable measure of IQ; although it is supposed to measure a person's capacity to learn, it is also measuring several other variables, such as motivation or the lack of it, language development, content. Similarly, the Boehm Test questions included more than one concept per item. Although the Goodenough-Harris scoring system is an attempt to achieve objectivity, subjective determinations of subjects' productions are central to the scoring. This test, however, was the only non-verbal measure, and, therefore, provided a different dimension for assessing predominantly scholastic-language-deficient children.

There was a positive correlation between each of the selected traits and another. Emotional maturity was most closely related to perceptual-motor development; however, both traits were estimated from the same instrument, the Goodenough-Harris, using a highly subjective although "independent" scoring scale.

Moderate positive correlations, significant at the .05 level were obtained between IQ and conceptual development, conceptual development and emotional maturity, IQ and emotional maturity, and conceptual development and perceptual-motor development. A small but significant positive correlation was obtained between IQ and perceptual-motor development.

Correlation of IQ, Conceptual Development, Emotional Maturity, and Perceptual-Motor Development

	IQ	Concepts	Emotional	Percept.-Motor
IQ	1.00	.48**	.40**	.25*
Concepts		1.00	.42**	.40**
Emotional			1.00	.74**
Percept-Motor				1.00

* $p < .05$

** $p < .01$

A relationship between the four traits was shown to exist among inner city disadvantaged kindergarteners, but there seems to be little conclusive evidence to support a program that would attempt to strengthen substantially any one trait through training in any other. Yet, there is some evidence to support perceptual-motor training to improve a child's emotional maturity, possibly in the area of recognition of body image and physical worth.

Ordinarily achievement scores are considered to be a valid index of learning ability, but insufficient information concerning the learning ability of disadvantaged children suggests that further study is needed. Most of the studies in this area have been devoted to finding out what a child can do at a given moment rather than what he can learn.

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