Two assumptions underlying preschool programs for high risk students are examined: the belief that measurement instruments are available for diagnosing children who will eventually require some form of special education and that intervention will be beneficial to the child. Diagnosis favors teacher interaction with the student in an instructional setting over individual instrument evaluation. Intervention involves a variety of aspects which must be considered in determining effectiveness. These include the delivery agent (home based or school program) and growth dimension (academic achievement or cognitive ability). Cited studies support the validity of early assessment and the effectiveness of intervention programs at the preschool level. (CL)
Is your district considering a preschool special education program?

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Two basic assumptions underly the implementation of preschool programs for handicapped children. The first contends that measurement instruments are available for diagnosing those children who will eventually require some form of special education. The second assumption presumes that intervention will be beneficial to the child. However, diagnostic and intervention techniques vary in programs designed to evaluate and serve handicapped preschoolers. This situation prompts speculation regarding the effectiveness of different procedures in meeting the needs of high risk youngsters. P.L. 94-142 and various state laws are, in part, based on these two assumptions requiring child find programs for identifying high risk preschoolers in order to guarantee equal educational opportunities (Mayer, 1982). School districts considering expansion of their special services should evaluate these assumptions before adopting any preschool delivery services. This paper attempts to examine how well substantiated these basic assumptions are. It is hoped that understanding these issues will better equip districts considering the adoption of preschool programs for high risk preschoolers.

Evaluation Techniques

Mercer, Algozzine, and Trifiletti (1979) have emphasized some of the pitfalls affecting early diagnosis of learning difficulties as they contrast with positive features. These may include false
positive identification within an educational system that is not sensitive to negative effects incurred in labeling. Similarly they note that false negative identification can result in an insensitivity to future diagnostic behaviors. In the fifteen studies examined by Mercer et. al., predictive accuracy rates of diagnosis varied in range based on the method employed: "single instruments - range 46% to 86%; median accuracy rate 75%; battery of tests - range 59% to 92%, median accuracy rate 79%; teacher perception - range 70% to 90%, median accuracy rate 80%" (p. 54). Whereas median accuracy appears relatively close in this report, range of accuracy favors a diagnosis based upon teacher evaluation.

Kaufman (1979) cautions against using intelligence tests for labeling and placement of any child into a special education program. It is safe to assume that such caution can be applied to single instrument diagnosing of preschoolers. Questions have been raised regarding the validity of any predictive measure which does not relate directly to school performance (Keogh & Becker, 1973). These authors suggest that predictive validity relates directly to how relevant an instrument is to expected school tasks.

While single instrument diagnosis of learning is questioned (Brooks-Gunn & Lewis, 1981), having the teacher do individual behavioral analysis is supported (Haring & Ridgway, 1967). This type of evaluation is more apt to yield "information that can be immediately transmitted into programming procedures" (Lovitt, 1971, p. 16). Magliocca, Rinaldi, Crew and Kunzelmann support the contention that
the basic identification agent for preschool handicapped students should be the preschool teacher (1977). However, they assert that there exists a need for a valid predictive instrument. In a pilot study, their preschoolers were evaluated by an examiner on various subtests which included tasks like counting number sets, matching colors and marking 'x's in circles. Comparisons were made between academic performance over the school year and performance on these subtests. Their underlying conclusion was that using subtests whose predictive validity is based on a frequency distribution (here, poor performance on subtests compared to poor performance as judged by preschool teachers) can result in an effective screening tool. Further, "The amount of instructional months of savings for children by using screening is critical" (p. 420).

Thus, we can see that preschool screening does prove to be a valid means of identifying high risk children for special programs depending upon the screening tool employed. While teacher evaluation appears to be the most valid diagnostic measure it requires the observation of the student over a period of time. One advantage of using a diagnostic instrument is earlier identification of special students and, thus, earlier intervention. While tradeoffs between accuracy and initiation time are clear, the first assumption that diagnosis of preschoolers can be done validly has received considerable support.

**Intervention**

In considering the effectiveness of intervention programs for
preschool students, Karnes and Teska have identified three major delivery systems (1975). These programs can be characterized as preschool or day care, home stimulation, and a combination of the two. In addition, two types of growth were examined as they relate to these intervention strategies: achievement and intellectual ability. Early intellectual ability gains characterize the performance of preschoolers receiving early education. This advantage gradually decreases, however, until no significant differences are demonstrable at the third grade level. On the other hand, achievement and motivational gains were maintained beyond the third grade level.

With regard to delivery systems Karnes and Teska conclude that home based or the combination of home based and preschool programs produced the most measurable gains in academic performance. These authors suggest that involvement of parents in sharing the educational responsibility of their children may be a factor which improves school performance. They also consider a more structured, objective oriented approach to yield more measurable gains than those which stress social and affective objective.

Of interest to educational agencies and researchers alike is the conclusion drawn by this study that "the earlier the instructional program is begun, the better" (p. 239). Since "earlier" for preschoolers generally refers to those children who are three years old, research which reports brain growth occurring during this age range (see Toepfer, 1980) may have practical application worth
examining further. Toepfer reports on work done by Epstein that considers brain development to be taking place during ages "3 to 10 months, 2 to 4 years, 6 to 8 years, 10 to 12 years, and 14 to 16+ years" and corresponding to "the onsets of the classic Piagetian stages" (p. 32). Based on these research observations the younger preschooler is at a more profitable stage for growth than the older preschooler. Further research needs to be done to evaluate these observations.

Smith, in her 1981 ERIC report on early intervention effectiveness concludes that early special education services were less expensive to school districts over a period of time. Noting the comments of Wilson Riles, California's Superintendent of Schools, in support of this position, Smith writes "preschool education programs are cost effective because it is cheaper to nurture the needs of the young than to pay the cost of rehabilitation" (p.2). Coupled with Weikart's conclusion that the effectiveness of intervention is superior to nonintervention (1967), cost effectiveness lends influential support to the second assumption considered in this article.

**Summary**

Two basic assumptions underlying preschool Special Education programs were analyzed in an attempt to assist school districts in determining whether they should adopt such programs. The cited studies support the view that assessment can be done validly. It was further stated that teacher evaluation as a result of direct con-
tact is superior to single instrument evaluation. The question arises as to how a preschool teacher can evaluate a child who is not available for observation in an existing program.

Two suggestions are offered. The first involves generating an instrument similar to Maglioca et al.'s and evaluating its effectiveness annually, changing subtests as needed. The second suggestion is to make available preschool programs for all children in order for teachers to become more directly acquainted with the population of high risk children in an educational setting.

The assumption that intervention programs can be effective was also supported. Further, cost effectiveness factors provide added weight to the adoption of these programs. When school districts attempt to justify implementing programs which require new capital expenditures, the added benefit of long term savings can serve to assist in the adoption of such programs.
References


