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ABSTRACT

This technical summary of the second phase of a four-phase study of Early Childhood Title I (ECT-I) programs, describes and analyzes the nature of early childhood programs currently supported under Title I. The summary is based primarily on information gained from field visits to 10 State Education Agencies (SEAs) and 29 Local Education Agencies (LEAs). Additional sources of information include "ESEA Title I Early Education: Review of Literature on Evaluation and Instrumentation" (Haney, et al., 1978); a telephone survey with state Title I coordinators; state Title I evaluation reports for fiscal year 1976; and published descriptions of exemplary early childhood Title I programs. The first three sections of the report summarize the field research method and describe the ECT-I programs and the current evaluation practices associated with them. The fourth section analyzes particular facets of ECT-I practices, including the nature of ECT-I programs within the broader trends of early childhood education, the needs assessment procedures related to the recruitment and selection of children for ECT-I programs, issues pertinent to curriculum and resources, and the relationships between ECT-I programs and the broader educational and social communities in which they reside. The last section describes parent involvement activities in ECT-I programs and current practices for evaluating these activities. (Author/MP)

Technical Summary

ESEA TITLE I EARLY CHILDHOOD EDUCATION: A DESCRIPTIVE REPORT

by

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INTRODUCTION

Rationale and Overview of the Project

Title I of the Elementary and Secondary Education Act of 1965 (ESEA) is the primary program of federal assistance for elementary and secondary education. It provides funds to counties and school districts in areas with high proportions of low income families, in order to improve the academic achievement of educationally deprived children. Local education agencies (LEAs) are allowed considerable discretion in using Title I funds, as long as services provided supplement rather than replace state and local efforts, and address local needs as determined by annual assessment. As a result, Title I funds a wide variety of programs and services in LEAs across the nation reflecting the diversity among these agencies.

Since 1965 LEAs have been required to evaluate the effectiveness of programs assisted under Title I. This task has proved more difficult than originally anticipated. In 1975 the U.S. Education Department (USED) contracted with Research Management Corporation (RMC) to develop a set of evaluation models to help guide the required local and state reporting of evaluation data. RMC recommended a system with three alternative models for assessing the effectiveness of Title I programs: a norm-referenced design; a control group design; and a special regression design. Each of the three has two forms -- one for use with nationally normed tests and the other for use with tests without national norms. Under this system, results of local evaluations can be aggregated by using a common metric, the normal curve equivalent (NCE), to yield an overall assessment of effects (Tallmadge and Wood, 1976).

For programs serving children below second grade, this evaluation system is of limited usefulness for the following reasons:

- The models are mandated to assess program effects only for reading, mathematics, and language arts, areas in which adequate norm-referenced tests are commonly available; whereas early childhood Title I programs often encompass a much wider range of goals;

- Measurement of young children's achievement is generally less reliable than that of older children;
- Few tests for young children have adequate norms; and
- Early childhood programs often have long-range goals, the evaluation of which raises special problems.

Thus the current ESEA Title I evaluation system is often not directly applicable to programs for children below second grade. For this reason, and in response to requests from local and state education agencies for help in evaluating such programs, the USED awarded a contract to the Huron Institute in 19[illegible] to study early childhood Title I (ECT-I) programs and to develop materials to help in evaluating them.[1] The work comprises four phases: a review of the literature of ECT-I evaluation and instrumentation (Haney, et al., 1978); a description of the nature of ECT-I programs and the ways they are being evaluated (Yurchak & Bryk, 1979); an examination of the feasibility of developing an evaluation system for ECT-I projects (Bryk et al., 1978); and the development of resource materials to assist in the design and conduct of evaluations useful to local school personnel (forthcoming).

The second phase of work, described in ESEA Title I Early Childhood Education: A Descriptive Report (Yurchak & Bryk, 1979), is summarized in this document.

Focus of This Report

The report cited above describes and analyzes the nature of early childhood programs currently supported under Title I. It is based primarily on information gained from field visits to ten state education agencies (SEAs) and twenty-nine LEAs. Additional sources include: ESEA Title I Early Education: Review of Literature on Evaluation and Instrumentation (Haney, et al., 1978); a telephone survey with state Title I coordinators; FY 1976 state Title I evaluation reports; and descriptions of exemplary early childhood Title I programs found in the USED publication, Education Programs That Work (1977).

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[1] For purposes of work done under this contract, early childhood and ECT-I are defined as programs for children in first grade, kindergarten, and prekindergarten.

The first three sections of this report summarize the field research method and provide a description of ECT-I programs and the current evaluation practices associated with them. The fourth section analyzes particular facets of ECT-I practices. Here, we locate ECT-I programs within the broad trends in early childhood education, describe recruitment, needs assessment, and selection of children for ECT-I programs, examine issues of curriculum and resources, and investigate the relations between ECT-I programs and the broader educational and social communities in which they reside. The last section on parent education describes parent involvement activities in ECT-I programs and current practices of evaluating these activities.

DESCRIPTION OF FIELD RESEARCH

Selecting the Visit Sites

Field sites were selected on the basis of three considerations: geographic and demographic diversity; demonstrated interest and investment in ECT-I programs; and thoughtful attempts to evaluate these programs. We identified candidate sites from our review of SEA Title I Evaluation Reports for FY 1975 and FY 1976, from interviews with the Technical Assistance Centers (TACs), from an informal telephone survey of SEA Title I directors, and from our advisory panel. States to visit were then selected in consultation with representatives of the USED Title I Program Office and the Office of Evaluation and Dissemination. LEA sites were selected in consultation with SEA officials in the states selected. Almost half of the LEAs chosen were urban communities with populations of more than 100,000. Thirty-four percent had populations of fewer than 50,000. The sample included urban, suburban, and rural communities in states widely distributed geographically. All of the LEAs concentrated their Title I funds on programs below fourth grade. All had at least one program at the early childhood level. Together they provided different combinations of programs over the prekindergarten, kindergarten and first-grade years.

Conducting and Reporting Field Visits

Each site was visited by a team of two experienced interviewers, one knowledgeable in evaluation and the other in early childhood education. While visits varied in length, depending on the site of the LEA, the typical LEA visit lasted three days. Visits included review of evaluation documents, semi-structured interviews with administrators, teachers and parents, and observations in classrooms. In most states the SEAs were visited first. In some, SEA officials accompanied Huron staff on LEA site visits.

Field visitors gathered information on seven topics: program context; program goals and structure; selection procedures; parent involvement; current formal evaluation procedures; current users and uses of evaluation information; and needs, capacities, and incentives for additional evaluation information. The extensive notes taken during each interview and observation were organized by these seven information categories and transcribed. Senior project staff conducted cross-case analyses.

Before presenting results, we should reiterate a note of caution about the degree to which our findings can be generalized to the wider population of Title I programs. The Title I projects visited were selected precisely because they did have ECT-I programs or components. Therefore, the frequencies of particular types of ECT-I programs or practices reported here cannot be safely generalized to Title I projects nationwide. Nevertheless, we feel confident that this study encompassed a fairly wide range of the spectrum of ECT-I programs currently being implemented throughout the country, and that we have an accurate and complete descriptive information about services delivered and current evaluation practices in the sites visited. The practice of sending case summaries back to state and local officials for review helped to insure the accuracy of such descriptive information. We are somewhat less confident about the comprehensive-

ness and validity of information directly pertinent to Title I rules and regulations, such as selection procedures, needs assessment, parent advisory councils, and use of evaluation results. Two reasons underly this uncertainty. First, several of these issues pertain to program compliance with Title I rules and regulations. We purposefully did not inquire directly into compliance issues because we did not want our field visits to be perceived by local personnel as efforts by state or federal Title I offices to monitor their compliance with Title I rules and regulations. Second, unlike other facets of program implementation, we could not directly observe participant selection, needs assessment, parent advisory councils and use of evaluation information. As a result, findings regarding these issues are based strictly on interlocutors' descriptions and observations regarding them and/or pertinent written descriptions.

DESCRIPTION OF ECT-I PROGRAMS

We organized our description of ECT-I programs around nine variables: grade level (prekindergarten, kindergarten and first grade); goals and objectives (subject-specific objectives such as reading, reading readiness, mathematics, and language arts and developmental objectives such as social, emotional, psychomotor, cognitive and language acquisition); primary program recipients (child-centered programs, parent centered programs and parent and child programs); program locus (classroom, home or both); duration (amount of instructional time planned for each teaching session); staff-child ratio (the number of adults regularly available to children); and Title I instructional staff (teachers, classroom aides, special subject teachers, special subject aides, resource teachers, resource center aides, and home visitors).

We found that ECT-I programs vary considerably across the three grade levels of the early childhood domain: prekindergarten, kindergarten, and first grade.

Prekindergarten Programs

Most prekindergarten programs are separate entities, only peripherally related to LEA activities in later grades. Many prekindergarten programs originated under other funding sources and were then assumed under Title I. In general, the long-term goals of these programs are to develop school readiness and prevent later educational deficits. The programs address a wide range of goal areas--including cognitive, language, emotional, social, gross motor, psychomotor, organizational, and motivational development--and emphasize the interrelated nature of learning in the several domains. Figure 1 presents a sample of typical prekindergarten program objectives.

Home-school coordination and parent involvement is stressed at this grade level. In addition to the required Parent Advisory Council (PAC), parent education activities play a prominent role. Parent involvement differs from site to site, but in general parents are taught some or all of the following: the fundamentals of child development, procedures for teaching specific school readiness skills or for reinforcing skills taught in school, and strategies for motivating children's desirable behaviors and eliminating undesirable ones. Parent education programs are sometimes separate from programs for children. More often they supplement school-based programs directly serving children.

Two basic types of program are funded at the prekindergarten level: home-based and center-based programs. In home-based programs teachers typically make weekly visits to the mother and child at home. Together they play and work on skills that will be useful when the child enters school. Home-based programs are somewhat less prevalent and most frequently serve the younger children (three-year-olds), those with unusual deficits, or those for whom access to center-based programs is difficult. Often they are the first part of a two-year ECT-I program, with children usually attending a center-based program during the second year.

Figure 1: A Sample of ECT-I Prekindergarten Goals

DOMAIN	OBJECTIVES
	Children will demonstrate:
Language Arts	• A greater degree of language facility as measured by a specified improvement on a given test • Improved sentence structure • Improved vocabulary and knowledge of word meaning • Improved language skills • Improved language concepts • Improved communication skills, including listening, speaking, and pre-reading and pre-writing • Improved ability to comprehend, interpret and recall oral language
Mathematics	• Understanding of early mathematics concepts as measured by a given test • Ability to understand the vocabulary of beginning mathematics • Ability to recognize geometric shapes • Ability to recognize numbers • Ability to count objects • Ability to compare similarities and differences • Ability to serialize objects • Ability to classify objects • Improved math concepts • Improved understanding of spatial relationships • Improved understanding to sequence objects and/or events
Cognitive Development	• Progress in concept development as measured by a given test • General concept development • Improved cognitive and intellectual competence • Ability to think clearly • Ability to use problem solving strategies and logical reasoning • Ability to test ideas
Readiness	• Increased school readiness • Attitudes and skills necessary to function in school • Improved pre-reading skills • Improved pre-mathematics skills

(Continued. . .)

DOMAIN	OBJECTIVES
Social/Emotional Development	• Positive change in affective behavior as reported by measures of affective growth • Self confidence • Positive self concept (self image) • Abrlity to accept himself and others • Ability to feel and respond to any situation appropriately • That they know how to love and be loved • Ability to cope with sadness and disappointment • Ability to discriminate between acceptable and unacceptable behavior • Ability to manage anxiety, anger and jealousy, as well as more positive emotions • Improved skill in social interaction • Positive attitudes toward self, friends, class and school • Positive attitudes and values • Responsibility and independence
Motivation	• Love of learning • Motivational development
Behavioral Organization	• Improved memory • Ability to exercise the will • Ability to use self discipline • Ability to concentrate • Ability to set goals and initiate actions to complete them • Ability to persevere until tasks are completed • Increased attention span
Perceptual Motor Development	• Growth in psychomotor development as reported by measures of psychomotor development • Ability to perceive accurately, using the senses to efficiently process information • Improved fine motor skills • Improved visual/motor perception • Improved auditory discrimination • Ability to demonstrate mastery in skills in the areas of small motor, laterality, directionality and coordination • Ability to write numerals, letters and words
Motor Development	• Ability to move and gain maximal control over voluntary muscles • Improved gross motor functions • Improved motor development • Improved self care skills • Improved coordination • Ability to use and control a pencil, crayons and scissors

Center-based prekindergarten programs usually meet four or five times a week for periods of two and a half to three hours. Many begin or end with a school lunch program. Classes are usually self-contained. The most common staffing pattern is one teacher and one aide for a group of approximately twenty children. The adult to child ratio typically is officially stated to be 1:10 but is often higher because of high absentee rates and the presence of parent volunteers.

In spite of recent efforts to make information about exemplary programs available, few of the prekindergarten programs observed have adopted curricula developed elsewhere. Several have adapted components of other programs and fit them to the needs of their own populations; more have developed their own curriculum.

Kindergarten Programs

Title I kindergarten programs often take their structure from the other early childhood activities in the LEA that are supported under Title I. In sites with kindergartens supported by regular LEA funds, some are downward extensions of the first grade and look much like first-grade programs. They emphasize basic educational skills. In sites where there are no prekindergartens or no state or local kindergartens, Title I kindergartens may be less academic. Home-school coordination is still stressed, although parent education activities are somewhat less ambitious than they are at the prekindergarten level, and most programs focus directly on services for children. Parents are usually involved as program resources or to reinforce their children's school learning.

Organizationally, kindergartens deliver services in one of four ways: through independent classes, pull-out programs, extended day programs, or through additional support staff for non-Title-I kindergartens. Staffing patterns vary. Generally, Title I kindergarten programs have a higher adult to child ratio than non-Title-I kindergartens, but this varies considerably from LEA to LEA.

First-Grade programs

At present, more children are involved in first-grade Title I programs than in either kindergarten or prekindergarten programs (Haney, et al., 1978). Virtually all Title I first-grade programs are child-focused and center-based, and are part of a multi-grade-level program -- typically, a kindergarten-to-third-grade, first-to-third-grade, or even first-to-sixth-grade program in reading, language arts, or mathematics. Like their counterparts at higher grades, first-grade curricula are somewhat narrowly focused on boosting achievement in specific academic areas. In most programs, children are tutored in small groups for somewhat less than an hour daily or almost daily. For most of the ECT-I first-grade programs we visited, children are taken from their regular classrooms for short periods of remedial instruction (pull-outs). Proponents of pull-out programs advocate them because they are clearly separate from and supplementary to local district programs and therefore cannot be challenged on compliance grounds. Educators less committed to pull-outs cite problems in scheduling, coordinating special instruction with other education services, and confusion for children when different materials and techniques are used in Title I and regular classroom instruction. They also fear that removing children from classroom activities might result in pejorative labeling. Alternative instructional strategies in first grade include traveling teachers, learning centers, and resource centers.

Parent involvement is still a priority at first grade, but parent education is less so. LEA initiated efforts tend to stress the parental role in reinforcing school learning (supervising homework or providing extra drill). Parent education efforts, focusing on more general developmental issues, emanate from PACs.

Summary

Diversity, across and within grade levels, is the most striking feature of

ECT I programs. Generally, programs for older children (first grade) are more narrowly focused than those for younger children. While ECT-I programs all aspire to the same long-term effects: increased functional ability in the areas of reading, mathematics, and language arts; their short-term objectives may be very different, their strategies for achieving them quite varied, and their definitions of success strikingly diverse. This has important implications for evaluation.

DESCRIPTION OF ECT I PROGRAM EVALUATIONS

The report distinguishes between two types of evaluation practice: annual assessment of program effectiveness conducted in order to fulfill Title I requirements, and other activities initiated by LEAs for their own purposes.

Required Evaluations

Although LEAs are required to conduct regular outcome evaluations, no guidelines exist that specify the evaluation design, the tests, or the ways results must be reported. Procedures therefore vary both from state to state and from LEA to LEA within a state. There are substantive differences in the technical aspects of evaluation as well as in the ability and qualifications of the evaluation staff. In many sites, the evaluations appear to be a *pro forma* exercise.

Most LEAs use a single-group pretest-posttest design. A few use posttest only or control group designs. Fall-spring testing schedules are favored, and often the test administered for purposes of child selection serves also as a pretest data point. There is considerable diversity in the tests used. Most common are general readiness tests, individual intelligence tests, and achievement tests. Although most ECT-I projects espouse long-term goals in areas of language, socio-emotional development, or psychomotor skills, few programs evaluate performance in these areas because of the absence of appropriate measures. Program personnel

in general are concerned about the poor quality of tests in early childhood.

In first grade, achievement tests are most frequently used to evaluate program effectiveness. Tests that are part of a nationally normed test series -- the Metropolitan Achievement Tests, the California Achievement Test, the Comprehensive Test of Basic Skills, and the Stanford Early School Achievement -- are the most prevalent. These are all group administered tests. At the prekindergarten level, individually administered general readiness tests and intelligence tests are the most common. Various language-specific achievement tests are also used at this grade, although no one test predominates. Kindergarten projects draw tests from all categories. Kindergartens that are the first level of a multi-grade program with a subject-specific emphasis (e.g., a kindergarten-through-grade-six reading program) often use achievement tests. Programs with broader objectives tend to evaluate with general readiness or individual intelligence tests.

Prekindergarten, kindergarten, and first-grade programs are sometimes reported separately, sometimes together, and sometimes in combination with other programs. Reporting formats for test results also vary. For pretest-posttest designs using norm-referenced tests, the following reporting procedures are used: mean gains scores, mean percentile rank improvement, average percentage of maximum possible gains,[2] and NCE gains. For posttest-only designs, projects report outcomes in terms of mean posttest scores in age or grade equivalents, or percentage of pupils attaining some percentile, stanine or grade equivalent criteria (for norm-referenced tests); or mean posttest scores in the raw metric (for non-norm-referenced tests). In addition to outcome evaluation, most states also

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[2] In this case, the maximum possible gain for any individual is defined as: maximum possible gain = maximum possible posttest score minus actual pretest score. A maximum possible gain score can be calculated for each child and then averaged to yield an average maximum possible gain. Actual gains (actual posttest minus actual pretest) can then be expressed as a percentage of average maximum possible gain. This method was used in only one LEA we visited.

require descriptive information about demographic characteristics and resources of the community, administrative procedures for implementing the program, criteria for school eligibility, needs assessment and screening procedures, and procedures for assessing parent involvement.

Optional Evaluations

Several LEAs have initiated supplementary evaluations for their own purposes. These efforts, which are seldom described in evaluation reports to SEAs, tend to be aimed at shedding light on what is happening in local programs (process evaluations); what happens to children as a result of program participation (longitudinal evaluations and case studies); or the relative efficacy of alternative program practices (comparative analysis of screening procedures or program components). These extra evaluation activities address general questions of "What are programs really doing?" and "How can they do it better?"

Although program personnel express an interest in and desire for more evaluations of this type, few are being conducted. There are several reasons for this. Resources available for locally initiated evaluations are scarce. Moreover, except in large, well-funded LEAs, evaluation staff are not trained to conduct sophisticated evaluations. Resources from SEAs are generally not available for optional activities. TACs concentrate on helping to implement the proposed USED models in grades two to twelve. Logistic and technical obstacles thus hinder efforts to produce evaluation information aimed at meeting specific local needs.

Resources Available for Evaluation

In general, resources available at the state level seem insufficient to provide extensive assistance to LEAs in evaluating their programs. This is particularly true for early childhood programs. At the local level, available resources vary greatly. Some large LEAs have large and sophisticated evaluation departments. Others, usually smaller, have much more limited facilities and staff. The TACs represent an important potential resource for assistance in evaluating ECT-I programs that has not yet been fully tapped.

Use of Evaluation Information at the State Level

State officials' use of information gleaned from evaluations is very limited. The primary use of results is to prepare the annual report for the USED. Some states use the annual evaluation in conjunction with the monitoring process to insure compliance with federal regulations, maintain contact with LEA personnel, give informal technical and program advice, and determine where to place emphasis. Other states use it to defend--or to urge elimination of--specific programs.

Use of Evaluation Information at the Local Level

ECT-I evaluation information is used and valued differently across LEAs. In some sites LEA personnel reported that if they were not required to evaluate their ECT-I programs they would not do so. Others found evaluations useful. Among the uses reported were: to assess program effectiveness, to improve practice, and to train staff. However, most see a number of difficulties in accurately and adequately assessing the effects of intervention on very young children. They agree that short-term impact evaluation is insufficient and plead for longitudinal evaluations. They are also concerned about the limits placed on evaluation efforts by the quality of early childhood tests and measures. Available tests are generally inadequate for accurate assessment of the full range of ECT-I program goals, particularly in the areas of social and emotional growth, psychomotor development, and language. The program staff thus do not regard these tests as satisfactory to select children for ECT-I programs, to diagnose individual needs, or to evaluate program effectiveness. Many LEAs therefore have developed criterion-referenced tests related to their own program.

ANALYSIS OF ECT-I PRACTICE

ECT-I Trends Compared with Trends in Early Childhood Education

In the first phase of this study, Haney (1978) identified some major trends

in early childhood education. These include: making early childhood education public and coordinating educational programs at the state level, an increased number of early childhood education programs, increased emphasis on parental involvement in programs for young children, individualized programs to meet children's specific needs, mainstreaming or integrating children with special needs into regular classroom activities instead of segregating them into special classes, and multidisciplinary comprehensive services for disadvantaged children.

While all of the general trends appear in ECT-I programs, they tend to be variously shaped by the requirements and regulations of Title I and the ways they are interpreted. The Title I mandate for local needs assessment and determination of programs to meet the needs identified contrasts, for example, with the general trend toward coordination of early childhood programs at the state level. The requirement that Title I funds be used to supplement rather than supplant existing programs also clearly contrasts with the general trend toward incorporation of early childhood programs into existing public school programs. While ECT-I programs often do make early childhood education programs publicly available for some children, unlike early childhood programs in general they have not increased in number since 1976. If anything, efforts in this area have diminished slightly, at least at the prekindergarten and kindergarten level (see for example the Annual State Performance and Accounting Reports prepared by the Division of Education for the Disadvantaged).

ECT-I programs also diverge from the general trend in that they emphasize basic academic skills more heavily. Virtually every program description includes primary objectives in the areas of reading or reading readiness, language acquisition or language arts, and mathematical reasoning and computation. Beyond these narrow objectives, however, most programs also include important instrumental goals in one or more of the following areas: social growth and development, perceptual-

motor or psychomotor development, gross motor development, behavioral organization, and motivation. In early childhood programs, there is often substantial tension between interpretations of Title I requirements for academic emphasis and the broader goals of current early childhood education practice.

In other ways, ECT-I programs closely approach broader trends in early childhood education. Most notable is the increased emphasis on parent involvement and parent education, particularly in programs for very young children. This may be attributed both to greater parental interest in programs for their very young children and to purposeful program outreach. Individualization is also important in ECT-I programs, although it is not always rigorously implemented. For example, it is most often done only by means of skills profiles generated from tests or curricula. Every child is assessed on a continuum in each of a number of skill or developmental areas. Children whose profiles show similar needs are then grouped for instruction. Profiles are reviewed periodically and instructional goals adjusted.

The importance of mainstreaming as an issue varies with ECT-I level. At prekindergarten the issue is usually moot, for these programs exist independently and children are not drawn out of other educational programs. Where other programs exist, however, particularly at first grade, the desire to mainstream children often conflicts with the mandate to supplement rather than supplant services. Once again, concerns about Title I requirements appear to diverge from clinical judgments on appropriate educational practice.

Finally, perhaps because of the focus on basic skills, ECT-I programs stress comprehensive services less than do early childhood programs generally. The task of ECT-I programs is narrowly defined, and supplementary services are often viewed as peripheral or even precluded by Title I.

Needs Assessment, Recruitment and Selection

In grades two through twelve, Title I provides supplementary educational services for those children in low income neighborhoods who are designated "educationally deprived." In this respect regular school programs fulfill several important functions for Title I. They generate local normative criteria for determining educational disadvantage--children's inability to perform at a level comparable to that of their peers. They also allow ready identification of children who should be served--those having the most difficulty at school. Finally, regular school programs have some statement of goals, objectives, and curricula, and these provide a base for deciding what additional services Title I should provide.

The situation with ECT-I programs is very different, particularly in prekindergarten. Unlike later-grade programs, prekindergartens are self-contained and usually have no counterpart within the public school system. As a result, there are no normative criteria for defining educational disadvantage. Moreover, neither child development theory nor clinical practice clearly defines educational disadvantage for a child before entry into public school, or the functional competence necessary to assure later academic success. In addition, since preschool programs stand alone and serve a limited number of children, no information exists on the past development of all children in the district, nor is there even a list of potential candidates for ECT-I services. This greatly complicates the tasks of needs assessment, recruitment, and screening.

Needs assessment. Needs assessment is the process by which LEAs determine which groups of children in areas eligible for Title I are most in need of services, and what services will have the highest district priority. The most common methods of needs assessment are grade-by-grade examination of pupil test performance, teacher observation, teacher or parent surveys, and analysis of previous Title I evaluation results. However, while these strategies may be

appropriate for students already in the district school program, they are inappropriate for prekindergarten and kindergarten. The absence of normative criteria for educational disadvantage at this age and the poor predictive validity of current assessment measures mean that program planners must extrapolate from failure at later grades to needs at earlier ages. This is particularly problematic since needs assessment often influences--or at least is used to justify--major program changes, such as extending a program to unserved grade levels or eliminating program components at other levels.

Recruitment. LEA staff report using several methods or combinations of methods to identify and recruit students. These include the following: contacting younger siblings of former ECT-I participants or children receiving Title I services in other grades; contacting other community service agencies (visiting nurses, well-baby clinics, churches, social service departments, and the like); posting notices in local newspapers and stores; and sending teachers to homes in eligible neighborhoods. There is some question whether these efforts reach all children who need services. While the LEA staff generally feel that the children they recruit do need services, they fear they might be missing others who also need educational help.

Selection. Beyond the requisite of residence in an eligible area, LEAs must establish criteria for selecting children to be served. For ECT-I programs, some combination of the following is commonly used:

- a low score on a test or series of tests;
- teacher judgment;
- a sibling who is or was a Title I student;
- parents with less than a high school education;
- inability to understand the language of instruction; and
- parent judgment.

There is no obvious way of appropriately weighting the various factors, however. Virtually every LEA uses some form of a standardized test as part of the selection process. The extent to which LEAs rely on these tests in making their decision varies considerably. At one extreme, test scores constitute a virtual decision rule, although cut-off scores differ across states and LEAs. At the other extreme, it appears that tests are used primarily to satisfy potential compliance inquiries; actual selection decisions may be made by other criteria. At a more central position, test evidence is used in conjunction with teacher judgment. If teacher judgment overrules test evidence, additional testing is often done to support the decision.

Manipulating the system. The needs assessment, recruitment, and selection processes can be manipulated to include or exclude children. Some projects have too few openings for the number of applicants and must reject some of them. Sometimes the solution is to screen all applicants and select the children with the lowest scores. Since test scores tend to cluster, teacher or tester judgment is added to the decision-making process. Alternatively, LEAs establish a test score eligibility criterion and test children on a first-come-first-served basis. When they have reached the maximum number of children they can accommodate who meet the criterion, they simply stop testing. Making the information available to some families before others exacerbates the natural selection bias and almost assures placement to the groups first notified. For example, one LEA always posted notice about the screening in one housing project first. Not surprisingly, since they used a first come-first served procedure, most of their children came from that project. Few came from another more "difficult" project where testing occurred later and there were few placements left.

There is considerable difference of opinion at both the state and the local level about what is necessary to comply with the law on the one hand, and what constitutes good educational practice on the other. In the selection of children

for ECT-I programs, this ambiguity allows considerable latitude for decision makers to be responsive to local priorities, as well as raising the possibility of abuse.

Organizing ECT-I Projects to Deliver Services

Resources. A conspicuous feature of early childhood programs is the purposeful interaction of play and learning activities. There is abundant evidence that young children learn through play. What and how they learn depends greatly on the type of material and play experience provided. When these elements are carefully chosen to match the abilities and interests of the children involved, they both facilitate the learning process and provide the content. They enable children to engage their curiosity and use their initiative as they learn. They also can yield diagnostic information to teachers.

Almost without exception, ECT-I programs are well equipped with a variety of material and instructional aids. Material is of two major types: equipment for exploration and free play (e.g., art material, puzzles, or sorting games), and structured learning material (e.g., programmed language kits). In prekindergarten and kindergarten classes, most material is of the first type; first-grade classes generally use more structured material.

The shift in emphasis from prekindergarten to first grade reflects the change from an educational approach tailored to each child, to one with common objectives to be shared by all the children. Moreover, it reveals theoretical ambiguities about what children should be doing and raises important pedagogic issues. From a perspective that stresses program content and short-term achievement, it is appropriate. From a more cognitive developmental position emphasizing long-term effects, it can be argued that first-grade children with educational deficits still need--and are most in need of--concrete experiences before moving on to symbolic activities. Currently, however, these children are the least likely to get them. Being the least likely to complete the required symbolic school

tasks, they may seldom have opportunities for more concrete exploration.

The space available for ECT-I projects is not optimal. Restrictions on building, increased constraints on local school spending, and a general sense of low priority for ECT-I programs seem to contribute to the deficit. Program personnel use available space differently. Most prekindergarten and kindergarten classes are arranged into three kinds of areas: a group meeting place, individual interest areas and areas for solitary play. First grade class space is usually organized around desks for individual children.

The adult resources for ECT-I programs vary considerably. Most LEAs use teachers, aides, and specialists in particular subject areas. However, they define the roles differently and combine them in a number of ways. The tasks and responsibilities of aides are most conspicuously different. Classroom personnel are supervised and their activities coordinated by special administrative and technical assistance personnel.

Curricula. ECT-I programs that are adjuncts to regular school programs must be distinguished from those constituting entire programs at a particular level. The former, for example first grade reading or reading readiness programs, take their objectives from corresponding regular school activities. They simply extend the instructional services to children who are having difficulty or progressing more slowly than their peers through the regular school curriculum Whole programs, most frequently at the prekindergarten level, on the other hand, must identify curricula from other programs or develop new ones. In these cases the linkage between ECT-I programs and programs in later grades is often tenuous.

Many projects are developing their own curricula. These often include a comprehensive set of behavioral objectives or criteria, organized in developmental sequences and specifying age, grade, or developmental level expectations. They also suggest appropriate activities and materials helpful in teaching children to these criteria.

There is reason to be cautious about such efforts. Criteria and selection of items are often only face valid. The eclectic approach used to set objectives and define curricula involves borrowing from other programs and drawing from books and clinical experience. This can result in a rich program adapted to local resources and individual children; but it can also result in superimposing theoretical positions on one another regardless of fit. The program then becomes a collection of bits and pieces of various early childhood practices with no coherent structure.

The organizational structure of the various curricula and hence the emphasis placed on objectives differ from place to place. Some ECT-I programs use a developmental area organization while others focus on subject matter. A typical developmental area organization would focus on some or all of the following:

- the way the child perceives the world (auditory and visual perception);
- the way the child controls his body and integrates information from his senses (gross motor skills, fine motor skills, perceptual motor integration, perceptual motor skills, and psychomotor skills);
- cognitive status (conceptual development and problem-solving skills);
- capacity to organize behavior and maintain attention (attention span, task initiation, task directedness, independence, and executive ability);
- language ability (expressive language and comprehension);
- social and emotional integrity (self concept and relationships with others).

A subject area organization might focus on:

- reading and reading readiness (e.g., letter recognition, word decoding skills, or vocabulary development);
- language arts (integration of reading, writing, and spelling); and
- mathematics (e.g., number recognition, simple arithmetic operations, and shape and spatial relationships).

Examination shows that the two perspectives overlap considerably. The apparent difference is one of perspective. From an elementary school perspective the logical strategy is to extend downward into early childhood programs the subject matter structure developed in the later grades. People trained in early childhood education, however, focus more on basic developmental areas. More important, however, is the way teaching staff relate the objectives to instruction. Again, one of the central themes of our report emerges. On the one hand, there is the weak and poorly understood link between early childhood experience and competent functioning in school. On the other, given the general Title I focus on the development of basic skills and on accountability, there is an increased push toward molding ECT-I curricula in this direction. The face valid way of doing this is to impose subject area objectives on ECT-I programs--but this runs counter to much current developmental thinking about appropriate early childhood education.

This dilemma is manifest in the difference between formal descriptions of ECT-I programs (written documents and Title I applications) and informal accounts (teacher comments and field staff observations). The programs as formally described usually emphasize achievement-related objectives, whereas as implemented they often reflect more comprehensive developmental concerns.

Individualization. A conspicuous feature of a great many ECT-I projects is the awareness of and sensitivity to issues of individualization. However, ways of individualizing programs for children differ. The typical way of individualizing instruction is to develop a skills profile on each child, usually based on whatever scores are available from selection or evaluation pretests (published or locally developed tests). The profile gives an indication of the mastery level in the area assessed by the particular test. Teachers use the profile to monitor the child's progress, checking off new skills and understandings as they occur. Some programs use procedures borrowed from the diagnostic/prescriptive

models developed in special education (see, for example, Gallager, 1974; Meisels, 1977). These involve a multi-step process of in-depth, multi-disciplinary evaluation of each child's strengths and weaknesses, a written diagnosis of education needs, and an individual education plan drawn from subsets of the project's general objectives that matches instructional techniques to the child's learning style and interests.

Implementing individualized programs is difficult for several reasons: few good diagnostic tests are available, and fewer still link assessment with instructional activities; special support services are necessary but often unavailable; expertise in diagnosis and prescriptive teaching is limited; extensive record keeping requires a major time commitment. In programs where individualization is thoroughly understood and carefully implemented, educational experiences are designed to maximize each child's existing skills, abilities, and interests in order to improve performance in weaker areas. In programs where individualization is not well implemented, the results may be more form than substance. In our judgment, technical assistance is needed in this area.

ECT-I Within the Larger Context

State influence on ECT-I programs. Under Title I, responsibility for defining programs and the ages at which they are to be offered rests with local education agencies. This responsibility is implemented through a multi-step process that includes determining school eligibility for Title I funds, identifying most pressing educational needs within eligible schools (needs assessments), planning and providing services to best meet those needs, and selecting children to receive the services. LEAs must supply assurances to the SEA that they have taken all of these steps in compliance with applicable regulations.

SEAs, on the other hand, are responsible for:

1) assuring proper and efficient performance of LEA duties under Title I;
2) providing technical assistance with regard to measurements and evaluations LEAs are required to submit;

3) reviewing applications and approving them if they meet all applicable requirements and do not exceed available funds; and

4) providing adequate notice and opportunity for a hearing in case of disapproval of the annual application and specifying reasons for the disapproval (Table I, ESEA, Section 141 and 142; 45K FR Part 116.4 and 116.5).

While in principle the "separation of powers" seems clear, in practice, there may be some ambiguity. Although SEAs have no authority to determine the content, structure, or age levels of programs funded under Title I, we observed a considerable amount of across-state variation in the number and type of ECT-I programs implemented. In the states visited, SEA representatives have definite priorities for ECT-I program implementation. At the state level, there seems to be a slight trend toward decreasing the number of ECT-I programs, particularly in prekindergarten. In addition, most SEA officials favor academic achievement programs. While they do not require that programs be limited to academic readiness and achievement, they suggest that these are the sine qua non for Title I funding. A few SEA officials argue, however, that in early education programs these skills can be addressed only within the context of integrated personal, social, and cognitive development.

Several SEA representatives give priority to individualizing programs. Pull-out programs, learning centers, mainstreaming, and continuous multi-grade projects have supporters at the state level. In most cases, however, state officials are somewhat vague about what actually happens in ECT-I classrooms, and tend to leave decisions about teaching strategies to the LEAs.

SEAs are charged with monitoring the effectiveness of Title I programs within their state. They therefore have a genuine interest in the evaluation procedures and instruments used. In general, SEAs that emphasize basic educational skills programs, even at the early childhood level, favor evaluation

methods using norm-referenced tests, while SEAs that emphasize developmental approaches tend to favor criterion-referenced tests or observations.

Coordination of Title I with regular school programs. In most programs, Title I and district personnel are working toward the same goals and using similar curriculum materials. However, in a few instances their methods are purposely different--an extreme illustration of the need to supplement rather than supplant local services. Coordination of individual education plans is more variable. Programs differ in the types of information shared between classroom teacher and Title I teacher, in frequency of contact, and in the form of reports.

Operational challenges to smooth program implementation include difficulties in scheduling ECT-I services so as not to conflict with other valuable classroom activities or with communication between Title I personnel and district staff. Opportunities for the latter are reduced by busy schedules and offices located in different buildings. One strategy for bridging the communication gap is to conduct joint in-service training sessions.

Continuity across grade levels. Continuity of program experience has been a major issue in the early childhood literature. It is also a concern for ECT-I, In general, ECT-I programs seem to be more successful than other early education programs in establishing and maintaining continuity of education experiences for young children. Some programs attempt to provide continuity by including the ECT-I program in a continuous multi-grade program. Others do so by extending curriculum goals or criterion-referenced materials for the elementary grades downward to meet the needs of four- or five-year-old children.

The most troublesome transition is between prekindergarten and later programs. Prekindergarten programs often develop independently of elementary programs and tend to be broader in scope and more comprehensive in the services they provide. A pedagogic shift occurs between early childhood education and

academic instruction in the elementary grades. The former focuses more on the child, the latter on program content. Moreover, ECT-I programs are often administered and housed separately, further complicating the continuity issue.

Relationships with other programs. A staggering array of additional funding services and programs is available to children eligible for ECT-I. In some sites, several funding sources are combined within a single classroom. In others, one source is used primarily at some grade levels and alternative sources are used at others. The constellation of programs is almost unique for each community. Our report focuses on the relationships between ECT-I programs and two others: Head Start and special education.

In most communities there is little or no communication between ECT-I and Head Start programs. In some, there seems to be competition for children or envy at disproportionate resources available to one program or the other. In others, staff coordinate resources. Some communities report an unofficial status hierarchy, from Head Start to Title I to special education. The nature of the relationship between programs seems to be determined by a number of factors including: the administrative framework for the two programs, the resources and services available to each, the eligibility criteria used, the way placement decisions are reached, and the adequacy of all early childhood services to meet the total community need.

The relationship between ECT-I and special education services is particularly complex, reflecting differences in state special education laws and the general lack of clarity about the requirements for implementation of PL 94-142. There is much concern and confusion about what services will be provided from what sources, how services might be shared, and how decisions should be made about services for individual children. Eligibility for ECT-I and for special education is often difficult to distinguish in early childhood, and there is some anxiety that

children will be placed in the wrong program.

Mapping individual needs to available programs is a salient issue in most LEAs. For each of the three programs, ECT-I, Head Start and special education, there is a screening or selection process that marks entry into the system. Some LEAs are beginning to try to coordinate screening procedures. However, in most they exist independently. It is up to parents to initiate entry into the various programs and the choice often seems to be determined by informal, personal networks rather than an informed, rational decision-making process.

PARENT INVOLVEMENT

Increased parent involvement is a trend noted in early childhood education programs generally, and in ECT-I programs in particular. This is influenced by two conditions. First, there is abundant evidence that early education intervention programs by themselves tend not to produce long-term effects on children. However, programs more likely to achieve sustained effects are those that involve parent participation. Second, the political climate of the times forces programs to be responsive to the people they serve and the primary mechanism for this is parent participation. Thus, two forms of parent involvement emerge: parent education and parent participation.

Parent Education

We distinguish among three types of parent education: those directed at changing parents' knowledge, attitudes and behavior as they are focused on their child; those directed at changing parents' knowledge, attitudes and the nature of their interactions with school services and personnel; and those with objectives that go beyond the parent role and try to meet the personal needs of parents as adults. ECT-I parent education programs are found in only the first two categories. Examples of objectives for each are summarized in Table 2. Parent education in ECT-I is a local option. LEAs implementing parent education

Table 2

Examples of Parent-Education Goals

To Produce Change in Parents':	Focus	
	Toward Child	Toward School
Knowledge	A To understand health, nutritional, and dental needs of children; To know what play materials are appropriate at different ages.	D To be aware of services available and how to use them, e.g., referral for special education; To know what tasks their child is working on in school.
Attitude	B To appreciate their child's characteristics of temperament and learning; To develop realistic and flexible expectations of their child.	E To trust school personnel; To view themselves as helpers in the education of their child.
Function	C To change verbal behavior; To change patterns of responsiveness.	F To seek appropriate services, e.g., referral for special education; To initiate and attend conferences with teachers with appropriate frequency.

programs argue that parents of educationally disadvantaged children themselves need education and training.

The goals of ECT-I parent education programs are to improve children's school readiness and academic performance by teaching parents to teach their children. As with so many other features of ECT-I programs, there are conspicuous differences in parent education efforts across grade levels. In general, LEAs tend to place heavy emphasis on parent education for three-year-olds, equal emphasis on parent education and child-centered programs for four- and five-year-olds, and less emphasis on parent education thereafter.

Parent education programs are organized in one of three ways: as independent entities, as components of classroom programs for children, and as informal add-ons. Many programs are home-visit programs. Others bring parents together in small groups. A few combine parent and child classroom activities.

Issues in implementing parent education programs. There are several challenges to successful parent education efforts. First, there is no consensus on appropriate goals for parent education. Parental needs vary with individual capability, family strength, and child characteristics, and it is necessary to individualize programs for families. However, doing so is difficult and time consuming. Second, there is a paucity of good materials for use in parent education. LEA staff often must develop their own, and this takes time and talent. Third, most ECT-I staff are trained to work with children, not adults. Excellent teachers of young children are not always the best teachers of parents, so additional training and support are necessary, though not always available. Finally, program accountability is an issue. Particularly with home visit programs, it is difficult to assure that what actually happens is consistent with the program as planned.

Program personnel in LEAs with parent education projects are convinced of the efficacy of these efforts. They feel that the children of parents who participate have better attitudes toward and do better in school, and that parents are better able to use school resources and to function as advocates for their children. However, evaluating these activities with any degree of vigor is difficult, hampered by both logistic and technical constraints.

Parent Participation

Three forms of ECT-I parent participation are identified: resources to the program, informal political agents, and parent advisory councils. The first includes serving as classroom aides, observing and evaluating programs, building playgrounds or helping with special activities. The second includes writing to congressmen and other public officials in support of or in opposition to legislation. The third is defined by the regulations of Title I and implemented accordingly.

Evaluating Parent Involvement

Some aspects of parent involvement must be evaluated and parent education is one of them. However, it is difficult to do so adequately, and in general LEA staff are dissatisfied with the ways the parent education programs are being evaluated. They argue that in their program they strive to improve parental competence and attitudes so that children may reap the advantages. Children whose parents participate in these programs should be more advanced in some measurable way than children whose parents did not participate. Therefore, evaluation in these projects generally takes the form of short-term child impact studies. These evaluations closely resemble those of child-centered ECT-I programs, despite the fact that program goals and activities may be quite different.

Parent educators, however, argue that short-term impact evaluation tells

only part of the story. Since goals and objectives of parent education programs include changes in parents' knowledge, attitudes and function, these areas should also be assessed. Moreover, effecting such parental change is more likely to have long-term consequences for children than it is to significantly effect short-term change. Therefore, they advocate longitudinal evaluations. Finally, many LEA staff feel that their programs have considerable diffusion effects. They would look for ways in which parents understand and deal more successfully not only with the ECT-I child, but also with his or her siblings. They would also assess increased competence in using school and community resources.

Evaluation of parent education is impeded by the paucity of instruments for measuring parent growth. There simply are no standardized and few widely used instruments for measuring changes in parents that might be expected as a result of participation in parent education projects. Alternative strategies used by some programs include observations of parent behavior either at home or in a controlled situation, parent attitude scales, questionnaires or unobtrusive measures of parent attendance at meetings, home visits or workshops. Many programs use a combination of several strategies.

We see, then, two factors that constrain efforts at more adequate evaluation of ECT-I parent education programs. First, the Title I regulations require that all programs must impact the child so the majority of evaluation resources are devoted to ascertaining that impact. Second, existing evaluation strategies and measures are simply not capable of sorting out the linkages between changes in parent knowledge, attitude and functioning on the one hand, and short-term or sustained effects on their children on the other.

SUMMARY

We suggest that the development of ECT-I programs has been influenced by

two forces: specific requirements, regulations, and interpretation of Title I, and general early childhood education theory and practice. The two overlap in some ways but seldom map directly onto one another. Several points of conflict have implications for program practice and evaluation. First, because there is no consensus on the definition of educational or academic deficit in early childhood, it is difficult to establish criteria for the greatest need. This complicates needs assessment, the selection of children for ECT-I programs, and the design of programs. Second, even if educational deficit is operationally defined, it is not clear that there is any way to prevent later academic failure. Educators may differ on the nature of the problem and on optimal intervention strategies. The result is a variety of programs, and a multitude of curricula with a wide range of goals and objectives. These objectives are organized by some into domains of child development; by others, in terms of standard curriculum subjects. This diversity among programs and multiplicity of goals within programs complicates the task of developing a unified system of evaluation models. Third, the state of the art in early childhood assessment also creates problems. Tests for both selection and evaluation of children are limited in number, narrow in scope, and often of low technical quality. This makes difficult the task of needs assessment, child selection, and program evaluation.

In conclusion, however, we should note that while the diversity of ECT-I programs may present challenges--in program administration, coordination with other programs, and especially in evaluation--it may also represent a real strength. As our literature review shows, many of the programs identified as exemplary on the basis of systematic evaluation were ECT-I programs. Indeed, their number is disproportionately large when compared with the proportion of Title I resources going into early childhood programs. This may be due to several different factors,

such as characteristics of early childhood tests and instruments, or the nature of child development. But it may also reflect the fact that the diversity apparent among ECT-I programs has made it possible to match programs to the particular needs of local communities and the specific needs of different groups of educationally deprived children. Thus, despite all the administrative and evaluation problems which it may cause, this diversity should be viewed as an important, real and potential strength of Title I efforts at the early childhood level. It should not be constrained lightly, however attractive it might be to do so for the sake of administrative or evaluative efficiency.

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