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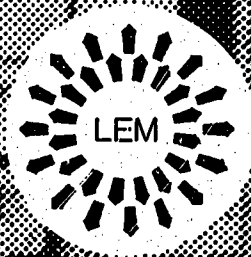
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ABSTRACT

Project LEM (Learning Experience Module), funded under Title III, Elementary Secondary Education Act, incorporates concepts of an open elementary educational plan, featuring: multi-age, multi-ethnic groupings, individually prescribed instructions, a "core" curriculum, differentiated staffing, and maximum space utilization. These educational components are addressed to meet specific objectives: (1) improving social competence and developing a more positive self-image in each student; (2) improving the reading and arithmetic skills of students; (3) increasing teacher competency-- (a) in diagnosing pupil needs, (b) in providing for individual differences, and (c) in creating a wholesome learning environment; (4) engendering significant parent interest and involvement in the school program; (5) developing parental abilities to assist their children; and, (6) utilizing existing facilities to accommodate more students, without increasing costs significantly or lowering the level of the educational program. Teachers in the LEM have been organized into three teams. Each team has one teacher per 25 children, a team leader, and an aide. Emphasis in the "core" curriculum is on creating a variety of learning experiences designed not only to achieve the performance objectives, but also to provide a continuum of incentives to learn. (Author/JM)

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**Learning Experience Module  
Grades second through fifth**

**OPEN-SCHOOL PLAN**

**MULTI-AGE, MULTI-ETHNIC  
GROUPINGS**

**A "CORE" CURRICULUM**

**INDIVIDUALLY PRESCRIBED  
INSTRUCTION**

**DIFFERENTIATED STAFFING**

**MAXIMUM SPACE UTILIZATION**

**Fanny M. Hillers School  
Hackensack, New Jersey**

**Carl E. Padovano, Superintendent  
Bernard P. Kaminsky, Principal  
Eleanor Russo, Project Director**

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**Overview  
and  
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of  
Project LEM  
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in Action**

UD013024



The State Department of Education wishes to bring to the attention of educators certain Projects which have become operative in the state with the aid of ESEA Title III.

These Projects have been evaluated as substantially meeting the objectives of finding solutions to educational problems. The material on such a Project should have relevance for many school districts.



CARL MARBURGER  
Commissioner of Education



## INTRODUCTION

### Purpose of Title III Program

Title III of the Elementary and Secondary Education Act (1965) recognizes innovative programs by providing school districts with the funding and structure necessary to plan, develop, and evaluate selected projects.

Its purpose is to encourage districts to develop imaginative solutions to educational problems, build upon research findings, create, design, and use supplementary centers and services.

Many new ideas being developed through Title III result in important differences in the lives of students. It has been the expressed wish of Congress that those projects evaluated as exemplary be disseminated as widely as possible so that other educators might adopt them — or adapt them — without having to go through the same trial and error. For that reason this overview of an exemplary program has been prepared.

### Description of the Community

Hackensack, a city of 43,000 people located about 12 miles from New York City, is one of the oldest communities in northern New Jersey. The public school district, comprised of five elementary schools, one middle school and one senior high, has a population of approximately 6,000 students.

The Hackensack Schools have been noted for providing educational leadership in serving a community characterized by a combination of small city-suburban environment with a multi-racial population and extremes of socio-economic status.

Especially noteworthy are its early childhood program, foreign language in the elementary schools, early installation of elementary school libraries, participation in the development of the Comprehensive Career Education Model and implementation of I.E.M.

### Philosophy of the School District

The Hackensack Public Schools are committed to providing an educational program and learning environment that will enable each child to achieve self realization and social competence. Therefore, the curriculum content should be broad enough to include the interests of the children, invite inquiry and reflect the teacher's concern for providing meaningful experiences.

The school's responsibility is to be responsive to the needs of the community, encourage participation and inform its residents of the educational program. In turn, the community's role is to provide support, to share ideas and responsibilities of mutual concern, and to trust the expertise of the teachers.



## HISTORY

### Description of the Target School

Studies conducted by the Board of Education in 1958 cited that Hillers Elementary School was then functioning at capacity. Although no additional construction was provided between 1955 and 1972, the school's population increased 21%.

During the 17 years, new educational programs and services were provided; but since no physical additions had been made, the result was general overcrowdedness. Areas originally designed as storage facilities, teachers' rooms, and offices were adapted to serve as instructional components. In addition, the Board of Education found it necessary to secure rented facilities to maintain on-going educational programs.

### Need for Educational Changes

Determination of the needs of the Hackensack School System and the target school, in particular, came from four directions:

- (1) analysis by educational consultants
- (2) standardized testing programs
- (3) professional observations
- (4) public opinion

### CONSULTANTS

Research conducted in the Hackensack Schools showed that a student's attitude towards himself was an important factor in achievement. A self-attitude inventory revealed that those students who set higher aspirational goals were experiencing greater school success. The study also exposed the fact that "the school is almost helpless without the cooperation of parents."

### TESTING

For several years, a continuing pattern of failure to achieve grade level proficiency in reading and arithmetic had developed in the target school. Results of tests administered clearly indicated the need to develop alternate methods of teaching the basic skills.

For the year 1969-70, 60.1% of the children in grades 1 through 5 at Hillers were reading below the 50th percentile, with 45.9% below the 30th percentile. In arithmetic, 45.8% scored below the 50th percentile, with 29.2% below the 30th percentile.

### PROFESSIONAL OBSERVATIONS

A pupil-problem survey administered to the staff of the target school revealed that teachers were interested in helping non-achievers, but found the learning environment and present teaching techniques "not uniquely geared to the problems and issues confronting the teacher and the learner."

## PUBLIC OPINION

Parental comments and attitudes, revealed through monthly meetings conducted by the school principal and staff members during the 6 years prior to the implementation of LEM, were evaluated. They indicated a concern for developing more flexibility in the school's approach to meeting individual needs in both academic and social development.

## TITLE III PROPOSED

A determination of the needs of Hillers School, related investigation and research, visits to model schools and programs, taking part in conferences and conventions, and perusing educational literature — all combined to formulate the proposed Project LEM.

LEM: Learning Experience Module — is an attempt by school-based personnel to design and develop an approach that, although in keeping with the concensus in the Hackensack educational community regarding the direction that educational programming should follow, represents a significant change from the methods predominant in the Hackensack schools. LEM is putting the Hackensack philosophy into action. Consequently no problem was foreseen as to integrating into the regular school program those elements of the project which were demonstrated to be of value.

In June 1970, the Hackensack Project LEM was accepted for funding by the N. J. State Department of Education, Division of Research, Planning and Evaluation, for a planned period of three years.

### Project Description

Project LEM incorporates concepts of an open-educational plan, featuring: multi-age, multi-ethnic groupings . . . individually prescribed instructions . . . a "core" curriculum . . . differentiated staffing . . . and maximum space utilization. These educational components are addressed to meet specific needs:

- Improving social competence and developing a more positive self-image in each student.
- Improving the reading and arithmetic skills of students.
- Increasing teacher competency:
  - (a) In diagnosing pupil needs.
  - (b) In providing for individual differences.
  - (c) In creating a wholesome learning environment.

- Engendering significant parent interest and involvement in the school program.
- Developing parental abilities to assist their children.
- Utilizing existing facilities to accommodate more students, without increasing costs significantly or lowering the level of the educational program.

## RATIONALE

Today's need for educational change can no longer be ignored. The flow of literature, media presentations and topics for discussion related to educational programs and human wants, bombard our daily lives with an urgency for revitalizing both the abstract (educational concepts and teaching techniques) and the concrete (use of facilities and types of materials and equipment) of educational programs.

With a conviction that individual and total populace needs are a responsibility of the educational process, the LEM project attempts to incorporate the goals of producing skilled, functioning, thoughtful and creative people into its program design.

## GOALS

To form the basis of an objective assessment of the project's value, general objectives were established. Principal objectives focus upon behavioral changes — in the children, their parents and the teachers. Other objectives are based on completing specific activities.

**STUDENT OBJECTIVE #1:** An increased positive attitude toward self, peers and school as indicated by improving scores on the locally designed LEM Student Attitude Inventory at least 0.05, compared to pre-test scores.

**STUDENT OBJECTIVE #2:** An increased knowledge of vocabulary, reading comprehension and math skills, as measured by the California Achievement Test, 1970 edition, so that:

- (a) the mean percentile ranking of those children functioning below the 40th percentile would increase by at least 50% during the school year.
- (b) those functioning at or above the 40th percentile would maintain or improve their percentile ranking.

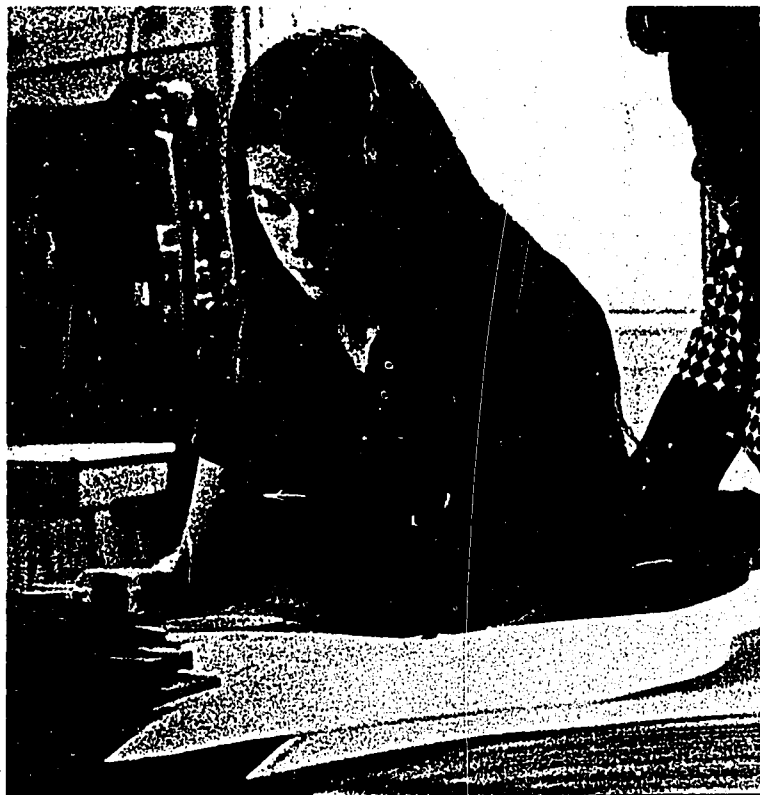
**TEACHER OBJECTIVE:** To demonstrably increase the ability of 17 project staff members in diagnosing the needs of children; and in providing a continuum of appropriate learning experiences through participation in pre-service and in-service programs.

**PARENT OBJECTIVE #1:** To demonstrate knowledge of the project's purposes by correctly answering an average of 16 out of 20 questions on a locally designed LEM Facts Inventory.

**PARENT OBJECTIVE #2:** To display a positive attitude toward their child's participation in the LEM as evidenced by attaining a mean Desired Response Factor of at least .70 on the locally designed LEM Parent Attitude Inventory.

**PARENT OBJECTIVE #3:** To gain knowledge and ability for assisting their children in improving skills in reading and math through a series of workshops conducted by team leaders, as evaluated by report of the workshop activities.

**FACILITIES OBJECTIVE:** To accommodate approximately 25% more students, without any sacrifice in the educational program, by converting existing traditional classrooms into the physical environment of an open-plan school design.



## CURRICULUM

### Organization

Teachers in the LEM have been organized into three (3) teams which are identified as LEM I, LEM II, and LEM III. Each team has one teacher per twenty-five (25) children, a team leader, and an aide. Each LEM consists of multi-age, multi-graded groups: LEM I (Grades 2 and 3), LEM II (Grades 2 and 3), LEM III (Grades 4 and 5).

The program is designed to meet each child's academic needs with individually prescribed learning as the basis for the project's curriculum. This means a commitment to individual diagnosis, custom-tailored educational prescriptions, and an array of alternative learning experiences. *The curriculum developed for LEM concerns itself with the total environment and continually directs experiences to promote the academic and social competencies of the children.*

### Grouping Procedures

Basically, three types of determined groupings operate in each LEM. *Home-base groupings* are heterogeneously formed and assigned to specific teachers. Home-base meetings are conducted daily and general meetings of all home bases within each respective LEM are held weekly.

*Skills groupings* are based on the achievement level and instructional needs of each child in the areas of reading and mathematics. Teachers are responsible for two groups, one in each of the two basic skills areas.

*Social Studies, Science, Cultural Arts groups* are based on home-base groupings and participate in learning experiences related to each area on a rotating basis. Each teacher selects and is responsible for the one area in which she feels the greatest competency.

### Materials and Record Keeping

Tasks initiated within the teacher workshop are continued throughout the year resulting in the development of teacher-made activity cards and sequential packets of work for individualized instruction. A records system for recording student progress in arithmetic and reading was designed. Reference files, with topic divisions, containing all available ditto material, teacher-made items, and other resource material is in constant use. Teachers have attended demonstrations of new materials and equipment and continuously select items deemed appropriate for student needs.

### "Core" Curriculum

Emphasis is on creating a variety of learning experiences designed not only to achieve the performance objectives, but also to provide a continuum of incentives to learn.

A "core" curriculum is often used as the basis for these experiences. Examples: LEM I chose as one of its themes "Transportation: Yesterday, Today and Tomorrow." LEM II developed "Careers in Communications," and LEM III selected "Around the World in 180 Days."

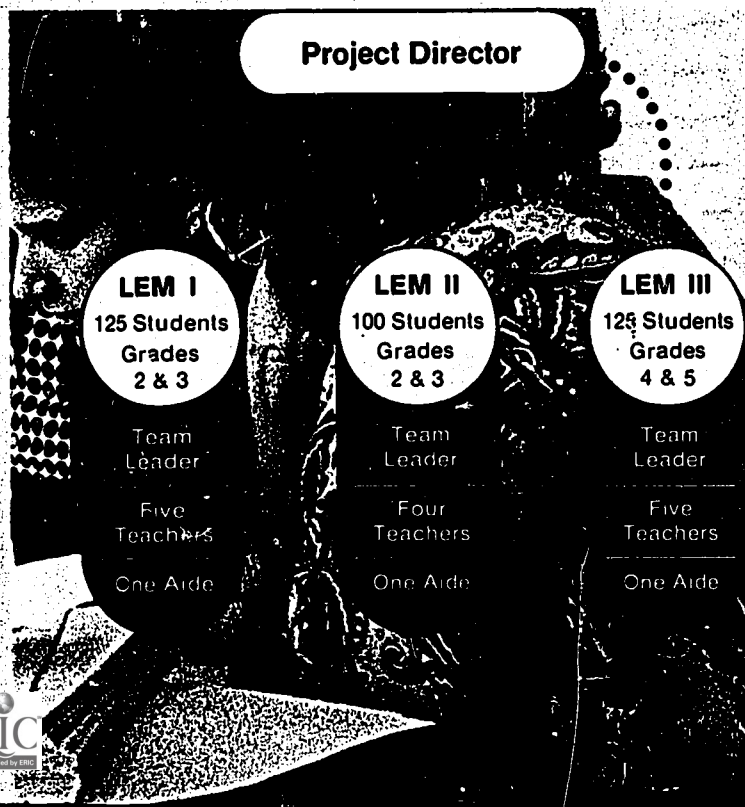
### Teacher Training

At the beginning of LEM, all members of the project staff were neophytes in open-plan organization and techniques. With the realization that the full potential of a teacher's abilities to plan, direct, and evaluate learning activities for children can only be realized by a continuum of exposure to expert opinion, directed experiences and specific instructional techniques, a six-week summer teacher training workshop was planned and conducted.

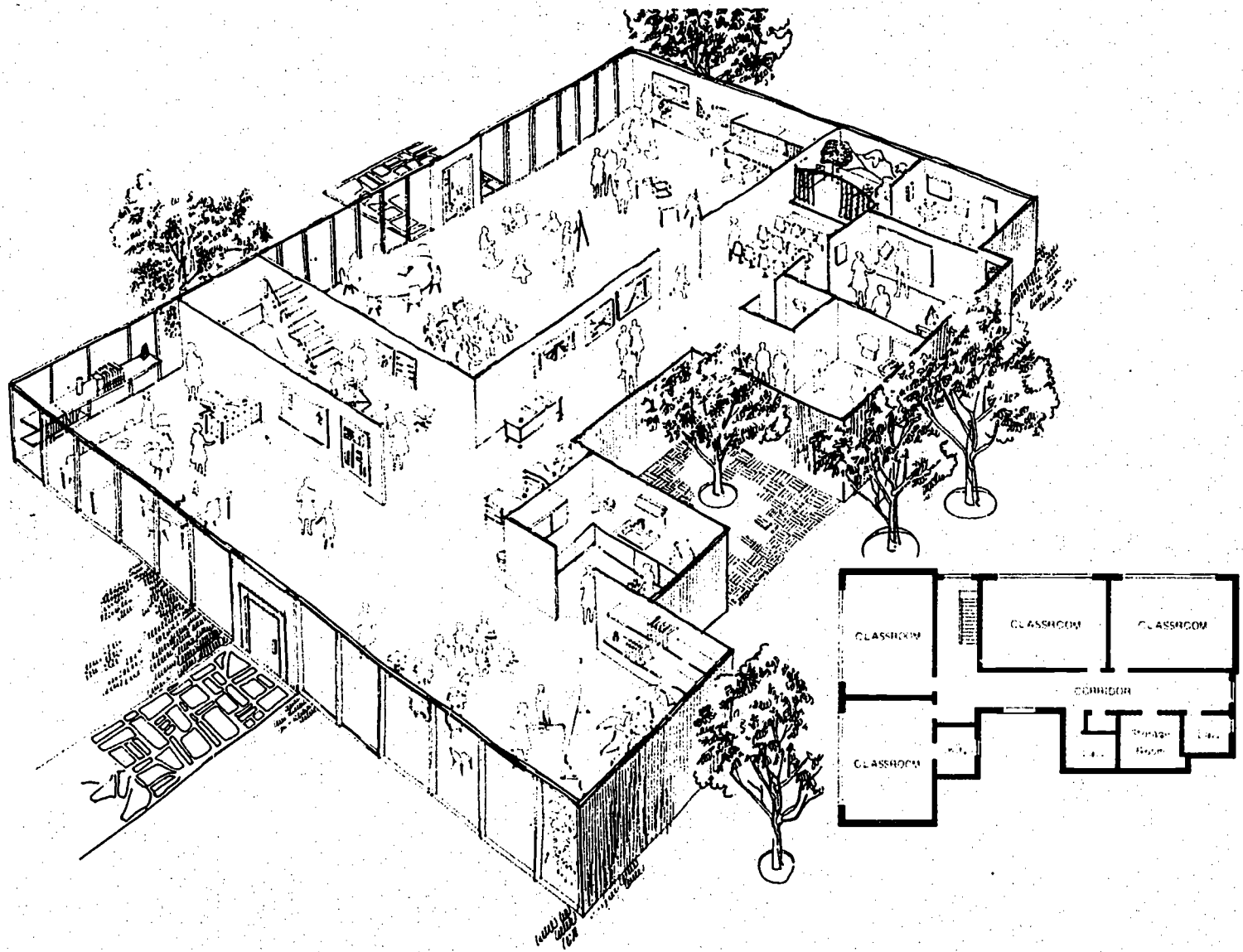
The intent of the workshop was to provide (1) insight into individual student needs, (2) knowledge of appropriate teaching techniques and use of materials, (3) opportunities to participate in discussion groups with educational leaders and (4) a wholesome working relationship. The project staff also participated in a 10-session workshop under the direction of a psychotherapist to sensitize their perception of individuals and to help alter stereotyped social attitudes.

### Student-Teaching

The LEM program became a resource center for selected teacher trainees from Fairleigh Dickinson University. Students were assigned to a 16-week program and, under the direction of a LEM teacher, were provided with a variety of experiences in open-class teaching.







## SPACE UTILIZATION

To provide for project needs, LEM calls for an architecture which encourages a diversity of programs, individuality, and group interaction.

Initial planning concentrated on revitalizing the interior of the school. Staff meetings were held . . . architectural literature studied . . . furniture companies consulted. During the initial year of the project, four existing traditional classrooms and their adjoining corridor in one wing of the school, previously accommodating 100 students, were converted into an open-plan learning center accommodating 125 students.

The removal of two separating walls was the major construction chore. Building a mini-stage, and installing acoustical ceilings, exit doors, electrical outlets, and blackboards in the corridor area followed in order. Carpeting the entire area and fresh paint, in bright colors, completed the change-over. Thus LEM I came into being. The result — a 25% increase in student capacity, *within permanent not temporary structures*, and an improved atmosphere at no sacrifice to the level of the academic program.

A similar approach in facilities modification was completed for the LEM II and LEM III areas in the two following years.

Staff, parents, and visitors alike agree that the physical facilities create a viable learning atmosphere with an esthetic quality worthy of note.



## PARENT/COMMUNITY RELATIONS

From the time the teacher sends out an individual note of welcome to each child who will be in her home base, until the last day of school, constant attention is directed towards involving parents in the project.

A series of 10 workshops is conducted by the Project Director and team leaders on techniques and use of materials for parents so they can assist their children gain academic skills.

Factual knowledge of the LEM program is conveyed to parents through invitational teas . . . open houses . . . scheduled visits to LEM . . . home visitations by the teachers . . . invitations to student productions . . . "hands on" presentations by the children . . . and small group discussions led by both the LEM staff and the Citizens Advisory Council.

In addition to these events, parents are informed of their child's progress through phone contacts, in-school conferences, home visitations, and three written evaluations which are prepared and issued on a personalized basis. Home visits by staff members to parents of LEM children provide a valuable asset toward parent-school relations. Approximately 25% of the homes are visited each year.

### Citizens Advisory Council

This 15-member committee, composed of the principal, project director, parents and community members, helps in the key areas of parent involvement and project dissemination. The committee's functions are to evaluate proposals, offer recommendations, and assist at orientation meetings. Sub-committees serve as guides for large visiting groups, plan publicity, and aid in dissemination projects. They meet on an average of eight (8) times a year.

## COST ANALYSIS

Title III funds are earmarked exclusively for the manpower and materials necessary to design, plan, implement and disseminate the components of the project.

**STAFF:** The staff requirements of LEM, including associated charges, account for over 80% of the project budget. This includes the salaries for the project director, team leaders, and three teaching paraprofessionals, plus summer planning sessions.

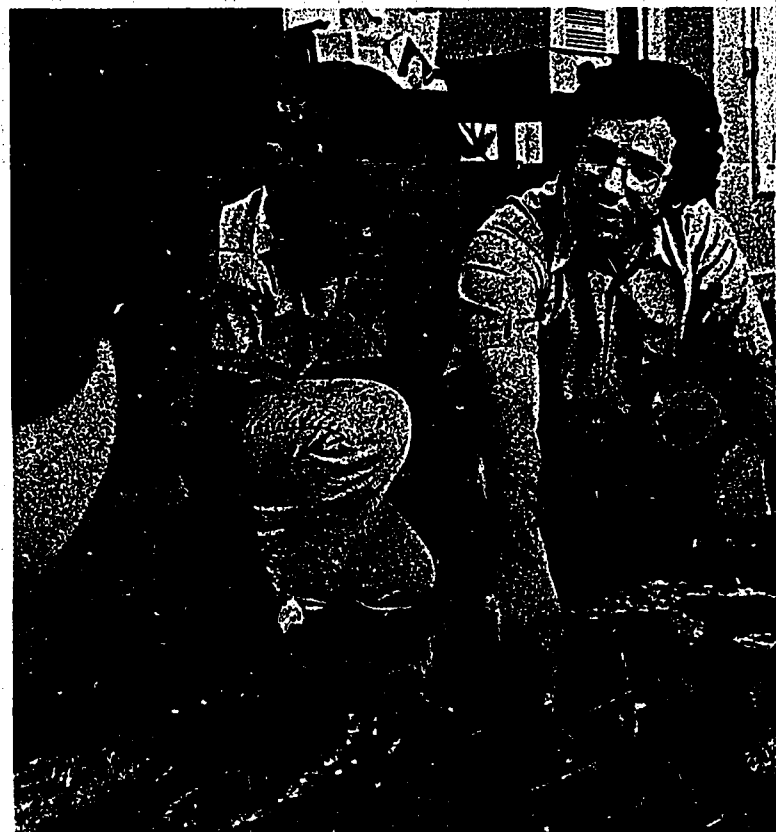
The original planning anticipated that after two years the project would be fully operational on local funds. As part of phase-out, the position of reading teacher, established in Hillers School, has been redefined to that of team leader.

It is anticipated that the salaries of the paraprofessionals will be assimilated into the local budget.

**MATERIALS AND EQUIPMENT:** Implementing a LEM project does not necessarily require any special expenditures but rather a redistribution of existing materials, texts, and equipment.

Ideally, budget considerations should include ample teaching supplies, audio visual equipment, tests and library materials. It could cover a range from stack chairs and book trucks to headphones, paperbacks and masking tape. The use/efficiency of all materials in the LEM approach, as compared to the traditional self-contained classrooms, makes itself quickly obvious. Materials and equipment are in constant use and shared by all team members.

**FACILITIES:** As previously mentioned, a conspicuous feature of the LEM project is that the remodeling of facilities resulted in an improved permanent structure rather than temporary teaching quarters. Its tangible value will remain for years.





## EVALUATION

The principal objectives of Project LEM focus upon behavioral changes within the students, the parents, and the teachers. Special effort has been taken to obtain data that accurately measures the achievement toward these objectives.

Pre- and post questionnaires administered during subsequent summer planning periods have indicated the development of the staff. This change is evidenced in a positive interrelatedness among the teachers, their peers, and the children and is measurable by the improved academic achievement of the students, themselves, as shown here.

The seven (7) initial staff members continue to be members of LEM and ten (10) additional teachers requested positions in the project, indicating that teaching situations in the LEM open-education approach are desirable. Three (3) of the original staff members have become team leaders.

The detailed planning and concerted effort of the LEM staff emphasizes individual attainment of basic skills

... positive community-school interaction ... increased parent involvement ... staff prowess in instructional techniques ... use of diversified materials ... and the imbuing of a sense of personal worth and "group living" for all participants in the project — both children and adults.

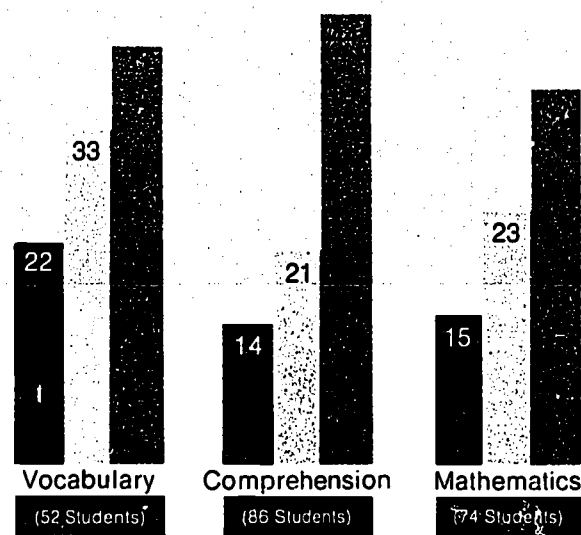
If the informal observations of parents and educators, alike; and the formal evaluation of both local and state officials are meaningful criteria — LEM is indeed succeeding.

As Dr. Carol Keasey, a noted educator and an on-site evaluator of the LEM project last year, commented:

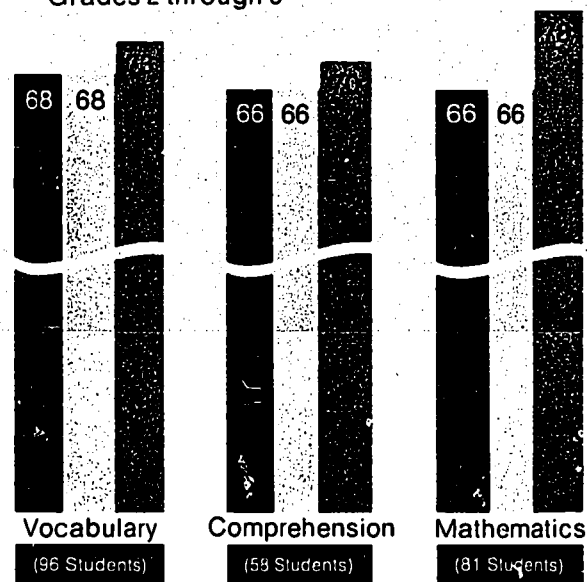
"... the entire area seems to function as an integrated and concerned community. The children seem to be learning continuously. Children, who in traditional classrooms would provide continued problems for both teachers and fellow students, can find a place in LEM and be part of constructive education."

## Academic Achievement — Project LEM

Comparative percentiles of children initially functioning below 40th percentile — Grades 2 through 5



Comparative percentiles of children initially functioning at or above 40th percentile — Grades 2 through 5



Mean Pre-test Percentile

Mean Percentile for Objective

California Achievement Test, 1970 Edition (Baseline tests conducted during 1972-73 school year)

### Project LEM, Learning Experience Module Hackensack, New Jersey

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## ESEA

