CHALLENGING THE BRIGHT CHILDREN IN THE CLASSROOM

CENTRE FOR NEWFOUNDLAND STUDIES

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CHALLENGING THE BRIGHT CHILDREN IN THE CLASSROOM

An Internship Report
Presented to
the Faculty of Education
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by
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ABSTRACT

The purpose of the internship was to design and implement a challenging program for bright children in a classroom. Such a program should be an integral part of the total school curriculum as one way of providing maximum learning opportunities for all children.

The review of literature indicates that unless the bright child is challenged he will be handicapped in his development. A number of successful programs providing such a challenge have been operating for over forty years. An evaluation of these programs shows that bright students do benefit from the activities provided.

The internship was carried out in a grade three classroom from April to June, 1975. The subjects were two girls and four boys whose I. Q. scores ranged from 116 to 130.

The program was implemented through a variety of techniques. The classroom library was expanded to include books on areas of special interest to the students as well as a selection of books of general interest. A resource centre was provided for related literature, art, and science activities.

The intern met with the subjects for approximately one and one-half hours each day. This meeting usually took place outside the regular classroom. Some aspects of the
program were individualized reading, drama and puppetry, science projects, creative writing, and mathematics.

The effectiveness of the internship and the extent to which its purposes were achieved were reflected in the students' classroom work, their willingness to share their experiences with other members of the class, and their interest in continuing the projects at home. The opinions of the teachers and parents indicated that the program had been enjoyable, effective, and worthwhile in challenging the students' capacity for learning.

It is recommended that bright children should be identified early and that a challenging program should be implemented for them. To assist the classroom teacher in providing this program, it is recommended that inservice training be given and a university course provided.
ACKNOWLEDGEMENTS

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Chapter 1

THE INTERNSHIP

INTRODUCTION

Many researchers and educationalists have conducted studies to determine how best to plan educational programs which would give maximum learning opportunities to all children. Various theories have been put forth and various techniques have been tried and evaluated. These include heterogeneous classes, homogeneous classes, classes based on the achievement of the pupils, and achievement grouping within the classroom.

There is evidence that there exists a wide range of intellect, ability, and interest within any classroom. Meeting the particular needs of the individual and helping him develop to his full potential has been accepted as a hallmark of education. To this end, some schools have endeavoured to provide special programs for students whose ability places them at the lower end of the continuum.

In this province over the past decade, much work has been done to provide appropriate instruction for those students. The programs sometimes entail provision of special classes, taught by teachers who have been trained to provide instruction that will meet the needs of the children concerned. Sometimes these classes are held for
just the students within the school and sometimes they accommodate the children throughout the system.

Within the school system in which this internship was carried out, programs have included the streaming of children and the use of two different series of basal readers. In recent years, the basal reader normally used for the slower learners has been the Gage Open Highways—a high interest low vocabulary series of readers. The Nelson or Ginn basal readers have been used for all the other children.

Most of the teacher's time has been spent in preparing lessons for the average child and the underachiever. There has been very little time left over to provide programs to challenge the pupils at the upper end of the continuum. As a result, these children have been left to drift because of the general feeling that the bright child will learn anyway. All too often, however, the bright child's free time has been spent doing unnecessary practice activities which foster patterns of boredom and cause many bright children to become early school dropouts. Even more serious is the point that Mackinnon makes: "It [this practice] may produce patterns of lazy scholarship and a disastrous belief that all problems can be easily solved."

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If we mean what we say—that in a democratic society equal opportunity should be given to all—there is a need for an environment which will foster inquiry and stimulate the child to ever-widening interests to help him in developing to his full potential.

PURPOSE

The purpose of this internship was to identify bright children in a Grade III classroom and to design some challenging, practical educational procedures to meet their particular needs.

Although it was recognized that no single administrative plan or educational program could be totally adequate for all bright students, this internship was designed to:

(a) provide some guidelines for initiating such a program in the regular classroom;
(b) give an example of one program followed with one particular group of students;
(c) establish the time necessary for initiating each segment of the program.

NEED FOR THE INTERNSHIP

Provision for the bright students should be a logical and essential part of any total school program, Dorothy Syphers supports this provision when she states, "A program for bright children is simply one phase of
providing for individual differences in children and not an arrangement giving special privileges or rewards to a select few. It was on this basis that plans to provide for the bright students were made.

Most schools in the system in which the intern worked have for some time acknowledged the differences among the children in the classroom, and some schools have made an effort to provide materials or make suggestions to challenge the bright children. The provisions they have made for meeting those children's needs include the following:

(a) Achievement grouping—the practice of grouping students for instructional purposes. The group consists of students who are similar in general capacity for learning or in specific aptitudes.

(b) Enrichment—the practice of providing learning experiences which will increase the depth and breadth of the topic. This may include special assignments, independent study, independent projects, and group projects.

(c) Acceleration—the most used method of providing for the bright student. It includes early admission, which is not possible if there is an age limit for

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admission. Other tactics of acceleration have included combination of grades, grade skipping, advanced placement, and telescoping or combining three years' work into two years' study.

(d) Ungraded Primary—a method of organizing the program to reduce the time children spend in the primary grades.

In the system, grade skipping, especially skipping the Kindergarten year, seemed to be the most prevalent practice of meeting those children's needs.

While all these techniques may have served the purpose of accommodating, or providing a program for, the bright student at the particular time, they may have contributed to problems encountered in later grades. In one of the schools in the system, seven pupils were advanced from Kindergarten to Grade I in October, 1971, and were advanced to Grade III in September, 1972. Some of them encountered problems in coping with the program during the year and in September, 1973, all but two were streamed into the Open Highways program.

It seems that the recent trend has been to permit the bright students to progress more rapidly while remaining in the same grade. The bright students have been clustered in a group, continuing with work related to the basal reader while the teacher has taught skills to the other group. Basal readers, however, are not the whole answer. Some children don't need as much
instruction in skills as others. Often the textbooks and materials of the basal readers are not challenging enough for the bright and talented students, so that those students' capacity for learning is still largely untapped in the typical school.

This situation has been prevalent in most of our Newfoundland schools. It has been especially true of the smaller schools where several grades are assigned to one classroom and one teacher. Little has been done in these schools to provide challenging experiences and programs for the bright students. Paul Witty postulates, however, that "education of bright children is possible for every size of community and school." One way of achieving this in the smaller schools would be to bring together in one group for an enrichment program the bright students of each of the two or three grades in the room.

Even in the larger schools which have one grade per classroom, little has been done to provide for rapid progress in the same grade or to provide a planned program to meet the needs of the bright students. With the advent of these large regional schools and with the provision of special education and remedial programs, educators are questioning what is being done or what can be done to provide suitable opportunities for the bright students.

It seemed, then, that there was a need to experiment

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with a small group from one class:
- to determine the feasibility of offering programs which go beyond the set curriculum but are not in competition with it;
- to have bright students work together to share ideas and stimulate each other to greater intellectual activity through creativity exercises;
- to have students work independently on interest projects or pair up with other students who had the same interests.

OBJECTIVES

The objectives of this internship were:
1. To identify bright children in the classroom.
2. To develop innovative activities to challenge the ability and interest of the bright children.
3. To work with children, giving direction and providing materials, so that they would be able to use their ability to work independently.

ORGANIZATION OF THE REPORT

This chapter has included a discussion of the subject under consideration, the purpose of the internship, the need for the internship, and the objectives. Chapter 2 reviews the literature concerned with the identification of bright children and with programs that have been successfully implemented. The methodology employed to carry out
the purposes of the internship is outlined in Chapter 3. An evaluation of the internship follows in Chapter 4. A summary, conclusions, and recommendations are contained in Chapter 5.
Chapter 2

REVIEW OF LITERATURE

The review of literature will deal with the identification of bright and gifted children, the activities and programs that have been designed for bright children, and the influence of these programs on the students involved.

IDENTIFICATION OF BRIGHT AND GIFTED CHILDREN

Eric Ogilvie, in the report of his study of Gifted Children in Primary Schools, used the term "gifted" to indicate any child who is outstanding in either a general or specific ability. Where generally recognized tests exist as (say) in the case of 'intelligence,' then 'giftedness' would be defined by test scores.¹

His report covers a year's study of what was actually being done for gifted children in primary grades in Essex, Oxfordshire, and West Sussex. This study was carried out from September 1970 to June 1971, during which time thirty schools were visited and eighteen study groups

established. The I. Q. score cut-off for intellectual
giftedness was 140; in some case studies, however, chil-
dren whose scores were less than 140 were selected
because of their specific ability in areas of music,
history, sport, mathematics, and others. Since the pro-
ject was exploratory and fact finding in nature, the
report does not present definite findings or recom-
mandations for further action.

The California Elementary School Administrator's
Association enlarges on the I. Q. tests as indicators of
brightness to include "... achievement tests, reports
from parents, teacher judgement, systematized observation,
anecdotal records, school marks, and cumulative records."  

Paul Torrance\(^3\) also gives these as the criteria
for identification in the Project for Education of the
Gifted, headed by Virgil Ward in 1962 for the Southern
Regional Education Board.

While there is no general agreement where gift-
edness begins, Terman and Oden did much to establish
criteria to identify the gifted child. Their work began
in the 1920's and "... used as the criterion for
selection a Stanford-Binet Intelligence Scale I. Q. of

\(^2\)California Elementary School Administrator's
Association, Twenty-sixth Yearbook (California: California

\(^3\)E. Paul Torrance, Gifted Children in the Class-
From Terman's report of his studies has arisen the notion that children whose I. Q. is 140 or above might be called geniuses.

Gallagher—also using the Stanford-Binet Scale of Intelligence as a reference test—has suggested that the term "academically talented" be given to those whose I. Q. is 116 or higher, the term "gifted" be given to students whose I. Q. is 132 or higher, and the term "highly gifted" be given to students with an I. Q. of 148 or higher. It is pointed out in the discussion, however, that the number of students in each category will vary depending on the socio-economic area in which the test is given.

DeHann and Havighurst, who have developed programs for bright children, maintain that "the principle of educational opportunity for all requires a fitting of opportunity to the individual's needs and abilities." It is the value of the individual that should commit educators to a policy respecting and building upon individual differences and interests.


The nature of brightness takes on diverse attributes. According to the research carried out at the University of Michigan, these include "creativity, productive thinking as distinct from reproductive; and divergent thinking as opposed to convergent; accurate perception of social and natural situations, power and sensitivity of thought, curiosity and drive."  

Benjamin Fine in his book Stretching Their Minds states "that the gifted child shows an early awareness of cause and effect, expects to hear reasons for actions and decisions, attempts to draw a general conclusion and shows an unusual ability to plan, organize and follow through in work and hobby activities."  

This latter attribute is essential, since much of what a student does is carried over into the home, and if it is a hobby activity, he can draw on community resources. DeHann and Havighurst agree that these attributes are prevalent in the bright child and emphasize that provision should be made so that these will be exhibited through intellectual ability, creative ability, scientific ability, social leadership and mechanical

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9 DeHann and Havighurst, op. cit., pp. 18-19.
Thomas and Crescimbeni\textsuperscript{10} have designed a table which summarizes seventeen of the most common myths associated with giftedness. For each of the myths they present a rebuttal based on fact. Some of the most common myths stereotype gifted children as being weak and puny, social misfits, oddballs or freaks, and bookworms. It is also considered that they come from upper middle class and professional families and never amount to much when they become adults. In actual fact, the gifted tend to be stronger and have less illness than their less gifted peers. They tend to enjoy social situations, they talk readily about many topics, and they are so normal that teachers often fail to identify them as being gifted. Gifted children come from all walks of life with three-fourths of those rated above average actually coming from families whose parents have occupations below that of the professional or highly successful businessman. Studies that follow gifted individuals into adulthood show that an unusual number of them become lawyers, doctors, engineers, and leaders in government, business, and industry.

The authors point out that sometimes appearances

may be deceptive and one problem for teachers lies in distinguishing between gifted and highly extroverted pupils. There is also the gifted child who is a non-conformist and will tend to rate low in the esteem of the teacher.

This problem of identification is acknowledged by Ruth Martinson\(^{11}\) who states that even though a child may range several years beyond his grade level in measured achievement, he may give no indication of his ability in his daily work, because he is eager to adapt himself to the new environment and to please his teacher.

These examples disclose that the intelligence of a child may not become evident unless he is stimulated and challenged. Marcella Bonsall believes that "gifted children have the ability to assimilate, calculate, interpret and recall knowledge and skill which they so aptly cultivate."\(^{12}\) She goes on to say that some gifted children are censured by their teachers because they have not worked to capacity, while at the same time those teachers do not provide the work and experiences on a level necessary to challenge them to achieve this full capacity. In this paper, also, she outlines the same points of giftedness as those by Thomas and Cresciembeni.


\(^{12}\)CESAA, *op. cit.*, p. 3.
Dorothy F. Syphers supports the observations made by Bonsall, referring to these abilities as being learning characteristics. She suggests that a knowledge of them may aid in the identification of the gifted and that having an understanding of these characteristics may enable the teacher to tailor her instruction of the children.13

Cutts and Mosely, in emphasizing the vital role of the classroom teacher in the education of the gifted, say, "If the education of a bright child is left to chance, if he is challenged only part of the time; if he is allowed to start each year far below his level of achievement, he will surely be handicapped in his development."14

This idea is supported by Michael Laba when he states, "In general, the research supports the idea that gifted and creative students can attain the highest level of ability—that of evaluation and creative behaviour—if they gain the skills that make them independent."15

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Since the literature indicates that there are specific factors in the identification of the bright student, then these factors must be considered when one undertakes to design a stimulating and challenging program for them.

PROGRAMS

The advent of Sputnik I sparked a new era in the education of bright and gifted children. Since that time, many books have been written concerning problems and attitudes, and suggesting appropriate programs and provisions for these students. In the United States, various forms of school organization have been utilized to care for them. But as Hauck and Freehill summarize the situation:

Too often the designers of school programs for able learners have looked solely to administrative arrangements (acceleration practices, ability grouping, or enrichment procedures) as a solution. Such arrangements are relatively ineffective without concurrent modifications of curriculum and teaching methods. A simple geographical change from one room or one school to another does not in itself constitute a 'program' for the gifted.\(^\text{16}\)

Quite a number of successful programs have been designed and implemented over the years. Because of their outstanding character and longevity, efforts have been made to evaluate recent programs for the gifted:

The Cleveland Major Work Classes, which were designed to provide a broadened education rather than an accelerated one, so the education was more stimulating. Walter B. Barbe and Dorothy N. Norris, in the article "Special Classes for Gifted Children in Cleveland," specify that although the program was concerned with the development of knowledge and skills in the subject areas, it had other less tangible aims as well. Some of these were:

1. Increasing the range of knowledge and skills for the student.
2. Developing alertness and creative power.
3. Developing critical thinking, power to work independently, to plan,
4. Developing increased ability to share in an undertaking.

These authors point out that the purpose of the Major Work Program was to provide a situation in which the children actively participated in every learning situation. These purposes became realities in the Major Work Classes in twenty different elementary schools, three junior high schools, and three senior high schools. In these classes, the teacher was usually not the leader, but the children actively participated in every learning situation.

17 Cutts and Noseley, op. cit., p. 95.
was an active participant in conducting the class. The child who was the group leader was responsible for seeing that the ordinary rules of courtesy were respected and that all children participated in the discussions.

Another unique aspect of this program was that these children did research even at the primary level. Once a semester, each child was responsible for presenting a research talk about twenty minutes long. This trained the child in the ability to organize his thoughts, collect information, and present the material to the class in an interesting manner. These activities provided leadership training.

(b) Los Angeles. Experimental classes were established in 1950, and by 1953 these try-outs resulted in planned special classes. The program required an I. Q. of 130 and pupils were selected from grades four, five, or six. The primary emphasis of the program was enrichment of the regular instructional program.

(c) The University City, Missouri. This program was begun in 1951 with an enrollment of fifty. In three years the enrollment had increased to two hundred seventy-five. This program was carried out in eight

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19CESAA, op. cit., pp. 40-56.
elementary schools. The pupils were chosen on the basis of classwork, school marks, and over-all performance as shown by the permanent record. Most of the pupils had I.Q.'s of 140 and above. The program took the form of special enrichment classes which met for forty to fifty minutes twice a week in each school. Most of the classes were confined to pupils of a single grade level—the maximum number in a class was ten. The classes were provided as an integral part of the regular program and each class worked on a project not included in the regular curriculum. 20

James M. Dunlap, in his article, "Gifted Children in an Enriched Program," discusses the program carried on at University City and points out that in this particular program the activities themselves were not of major importance. It was the attitudes, study habits, and ways of getting along with people that were the objectives of the enrichment studies. 21

(d) New York SAAC. This was a relatively new community based program initiated in the early 1960's. The Science and Arts Camps enabled students from the fourth grade up to participate in intellectual and

20 Cutts and Mosely, op. cit., p. 97.
creative experiences at summer camp. The project also practiced an exchange program.22

(e) Portland Program. This was begun in 1952 as a cooperative program between the Portland Public Schools and Reed College. It was a five year experiment to develop a program that would offer better learning opportunities for intellectually able and talented children. Four high schools and ten elementary schools were selected to carry out the program during the pilot period. The definition of giftedness employed by the program included approximately the upper ten percent of the most intellectually talented pupils and also the same proportion of the most talented in the special aptitudes of art, music, creative writing, creative dramatics, creative dance, mechanical talent, and social leadership. The program expanded after 1957 and became a permanent part of the instructional program of the school system.23

Provisions for additional opportunities for these able and talented children were developed within two types of programs--homeroom enrichment and special interest classes.24

22DeHann, op. cit., p. 74.

The homeroom enrichment program was based on the premise that the general instructional program can be broadened in every classroom to take care of many of the special needs of the bright students. All units were broadened for all grades to study. Materials were provided to make it possible for bright students to study a program more deeply.

Special interest groups were provided for able, highly motivated children who could profit from being with other children of high ability and interest. These groups were taught by a member of the teaching staff who was relieved of regular classroom duties for several periods each week. Some of the subjects covered were mathematics, foreign language, science, creative writing, creative rhythms, music, creative dramatics, and social leadership.24

Thomas and Crescimbeni point out that the Portland Project has received considerable publicity for its attempts to meet the needs of gifted students through an enrichment program in the regular classroom. They also say that the project acquired a reputation for its efforts in developing activities aimed at helping teachers instruct more effectively in regular classrooms.25

25 Thomas and Crescimbeni, op. cit., p. 98, 130.
NEA Project. This project, sponsored by the National Education Association, operated for ten years from September, 1958, to September, 1968. Its purpose was to strengthen programs for rapid learners at all levels. Curriculum and research materials were brought to the attention of teachers as "ways and means" for nurturing giftedness among students wherever and whenever it could be identified. The main activity was the development of a special publication, and 344,500 of these "green books" as they are now known, were distributed to the schools. During the same period, the Director of the Project travelled to participate as a consultant and to conduct intensive inservice education programs in large cities. After the project ended, the Director continued his work on behalf of the gifted through an inservice program for teachers in Maryland. 26

Studies of the above programs show that they were beneficial to the students. Although all the programs were concerned with the development of knowledge and skills in the subject areas, three emphasized the development of critical thinking, three had as an objective the development of creative thinking, and two were concerned with the

development of ability to work independently. The most recent program reviewed, the New York Science and Arts Camp, emphasized participation in intellectual and creative experiences at summer camp. While all the programs appear to have successfully reached their objectives, a survey of the schools included in the NEA project indicated that this project was perhaps least effective in large cities. 27

27 Bish, op. cit., p. 17.
Chapter 3

METHODOLOGY

In order to achieve the purposes of the internship, the intern considered it necessary to fulfill the following procedural objectives: (1) to obtain the I. Q. score of the children; (2) to obtain the permission of the parents for the children to participate in the internship; (3) to discover the specific interests of the students; (4) to develop and implement a program to meet these interests; (5) to establish rapport with the classroom teacher and keep her informed of the daily assignments.

This chapter reports the methodology employed by the intern to achieve these objectives during the nine week period from mid-April to mid-June.

IDENTIFICATION OF SUBJECTS

At the beginning of her graduate studies, the writer received permission from the Superintendent of the Conception Bay South Integrated School Board to conduct an internship in his school district. In December, 1974, the writer met with the Superintendent, the Supervisor, and the Reading Consultant. During the discussion of the needs of the District, it was agreed
that this proposed internship would fill a need and would supplement the existing program. On the recommendation of the Superintendent, the internship was conducted in St. George's School, Long Pond, where both the principal and the teacher were willing to have it carried out.

During the early part of January, 1975, the writer set up a meeting with the Principal and the two Grade III teachers of that school. At that time she outlined the proposal for the internship. From discussions concerning the identification of the students, it was concluded that the internship would have to take place in just one of the classrooms, since the children had been streamed according to their ability. This meant that the top group of one classroom was achieving at the level of the low group of the other classroom.

The teacher in the classroom chosen for the internship agreed to observe the children with the idea of identifying those who finished their work first, and had it done correctly, to identify the area which they finished first and to gain an insight into their interests.

From her observations the teacher made note of ten students whom she considered to be the brightest and most advanced in the class. The intern administered the Thorndike Intelligence Quotient Test to these ten children. The I. Q. scores ranged from 107 to 130. The six whose scores ranged from 116 to 130 were selected for the internship. This range of scores was approximately the range
found by George I. Thomas and Joseph Crescimbini in their research studies in five separate average communities of New York State.

To obtain permission for the children to participate in the internship, the intern contacted their parents by phone. She gave each parent a general explanation of the proposed program. All were willing to have their children participate in the project and offered to help in any way the intern suggested.

The intern worked with the children every day. Most of the time the program was conducted in a separate small classroom, but on several occasions the work was carried on in the regular classroom.

INSTRUMENTS AND MATERIALS

The identification of the bright students and their interests was based on:

- The results of the Lorge-Thorndike Intelligence Test
- Teacher Observation
- Class Performance
- Anecdotal Records
- Cumulative Records

The last two items were made available to the intern to peruse at leisure. From them she obtained an accurate profile of each student.

To enable her to identify further their interests, the intern asked the students to write on the topic "What
I would like most to do," and to complete a questionnaire which gave practically the same type of information. (See Appendix A).

PROCEDURES

In order to establish rapport with the children and the teacher, the intern spent the mornings of the first few days visiting the classroom. During this time also, the intern observed the students' participation in the regular curriculum in order to gain insight into their work habits and to determine how best to design a program that would blend with the existing programs, or one that would supplement them.

During this time the intern assured the teacher that the program would be conducted within the framework of the existing timetable. She worked closely with the teacher and endeavoured to avoid disrupting the regular classroom activities. Throughout the internship informal discussions occurred during recess times, when the intern informed the teacher of the activities she had planned for that day and of the results of the previous day's activities, including samples of the children's work.

During the initial period of observation, two important things became evident. The first, and most important because it indicated one direction the internship would take, was that the top group had almost completed the prescribed reading program. It was decided, therefore,
that the major part of the proposed internship would be devoted to an individualized reading program. The second observation concerned the feelings of the remainder of the class. General disappointment was expressed because they were not to be included in the project. With the permission of the teacher, the intern explained that for this project only a limited number of the students could be involved but that the remainder of the class could participate in some of the same types of activities.

To make possible the participation of the whole class, the intern catalogued the books in the classroom library. She typed the bibliographical information on index cards which were filed in a small box. She explained to the whole class the correct way to use this index card system, and they used it extensively for the remainder of the year.

At the end of this initial period, the intern and teacher agreed that the internship should be scheduled daily in the one and one-half hour period between recess and lunch. The students could also continue the activities during their free time throughout the day. If the intern deemed it necessary to return at other periods of the day to finish a particular project, she was free to do so.

**THE PROGRAM**

The program was developed to meet the needs and
interests of the students as revealed by the questionnaire, the conference, and the cumulative records. The intern provided the materials for indepth study or enrichment of the selected areas. Since so many of these study activities were initiated by the books provided, the library is discussed first.

The Library

A library corner was set up containing books relating to each child's special interests as well as books of general interest. Since the library was used for the individualized reading program, at least thirty books and a supply of magazines and newspapers were available at all times. The intern selected these from the Curriculum Centre at Memorial University of Newfoundland, and from her personal library. Before bringing in these books, a discussion was held about library manners and the proper care in handling books. These rules were recorded on bristol board and displayed over the library table. Since the intern had already instructed the whole class on how to use the index card system, only a brief review was necessary at this time.

In order to motivate the students to explore a wide range of reading material and to provide a balanced program, various genres of literature were introduced. Book covers were displayed and excerpts read. Group discussions were held on the characters, the theme, the
plot, and the style of writing. These topics were also discussed individually and in groups in the individualized reading program.

Creative Arts

Some of the related activities centered around the creative arts. These experiences were designed to help the students express themselves individually and to provide opportunities for them to participate in group activities, sharing materials and ideas.

Dramatization. Students dramatized some of the stories and poems which they had read and also some of those which they had written themselves. Sometimes these dramatizations were performed for the whole class. Other members of the class participated in the play on one occasion when other classes were invited to attend.

Puppets. Puppets were used to dramatize a play from the regular reader, a play from a library book, and a number of poems. Several kinds of puppets were placed in the classroom, and the students made their own or had them made at home. They produced finger puppets in class, using scraps of material and play dough. The students constructed and decorated a puppet theatre and worked individually and in groups to produce appropriate backdrops for the different plays.

Writing. The students wrote the scripts and poems.
for the puppet shows. They wrote original stories and poems through the means of creative exercises. The following are examples of these exercises:

1. Each student was given a sheet of paper. The intern's instructions were:
   - Fold the paper in half keeping the fold toward the body.
   - With a marker draw three random lines on the paper.
   - Exchange papers with another child.
   - Place the paper on your desk with the fold toward you.
   - Using another colour marker, make a picture incorporating the three lines already on the paper.
   - When the picture is completed, open the paper to the full size sheet and on the blank area write a story, poem, or play about the picture.

The results included stories, poems, and a short play, and one student used a comic script effect in the picture and wrote six water safety rules.

2. Each student was given a sheet of paper. The intern's instructions were:
   - Select a marker.
   - Close your eyes and make two curved lines on the paper.
   - Open your eyes, make a picture incorporating the lines you made.
   - Write a caption for the picture.
   - Write a newspaper report for the drawing.
These plays, poems, stories, and reports were recorded on a tape recorder and were later played back for the students' enjoyment and evaluation. Other activities are included in Appendix C.

Clay models. The students became interested in making clay models after the intern introduced some books on arts and crafts and clay modelling. They modelled literature characters, such as Snow White and the seven dwarfs, and used them in displays designed to advertise a particular book, or to illustrate an incident from a book, for example, Glooscap standing with one foot in Nova Scotia and the other foot in Newfoundland. They made puppet heads for some of the animal characters in the play "Easter Bunnies", which they produced. Possible uses of other clay objects led to a study of archaeology.

Arts and crafts. Students were encouraged to create original illustrations for a story, using newsprint, construction paper, paint, felt markers, crayons, and fabric. They made book markers, book covers, individual pictures, backdrops, murals, and posters.

Work centers were provided for projects and creative activities. When the students decided a puppet theatre was needed, the materials—box, cardboard, material for curtains, string, markers, crayons, paint—were provided. The students were free to work on the project in their free time.
Individualized Reading

Since the students had completed the prescribed basal reader, and since they did not need more practice in the reading skills, the individualized reading program was implemented. This was a new approach to reading for them. In the initial session, therefore, it was necessary to explain the fundamentals of the program, outlining the intern's responsibilities for providing the books and activity cards and arranging for sharing time and conferences. The students' responsibilities were discussed next. Although they were free to choose their books and the activity cards, they would be expected to be prepared to discuss the books at the pupil-teacher conference. To illustrate how it worked, the intern read a book, read the related activity cards—explaining that the student need select only one—and demonstrated how these ideas would be extended at the conference. Each student would be expected to request a conference with the intern when he felt he was ready.

Book selection. The types of materials that were to be included in the individualized reading program had already been placed in the library. These included student interest material, general interest books, and informational books at varying levels of difficulty. The students selected their own reading materials from this variety of books.
Student record keeping. The intern introduced various recording methods. Students were encouraged to use a method which would be easy to keep and which would give all the necessary information. They decided to make a record book complete with a table of contents and decorated cover. Each page was given a title such as Fairy Tales, Animal Stories, Informational, Adventure, and Poetry. As they recorded on the appropriate page each book that they read, most of the students drew illustrations of the book on the border of the page. For example, one student recorded Angus and the Cat on the Animal Story page and drew a picture of a cat on the border next to the title. Another recorded A Tale of Two Bicycles on the Realistic Fiction page and drew on the border two bicycles—one new, the other broken and battered. The students decided in which category each book belonged.

The students also decided to use pictures such as an Indian headdress, an apple tree, a log train, and a potted plant to record the books which they read. For example, after the child who had drawn the Indian headdress read a book, he drew a feather on the headdress and recorded on it the name of the author and the title of the book. Each student completed and took home several of these records, and this served as one way of informing the parents of the number of books and the kind of books the child was reading.
The intern also kept a record of the books read and the activity cards completed by each child. She also made notes on the discussions which took place at the conferences.

**Activity cards.** Activity cards were designed for the students' use. Some of these contained general questions which could be applied to most books. Other cards were designed for specific books. Questions referred to the plot, character, genre, and impressions. In the case of nonfiction books, questions were aimed at obtaining literal meaning. The cards were designed to promote good study habits and to guide informational reading.

**Pupil-teacher conferences.** Pupil-teacher conferences were conducted when the students were ready. For most of the participants this meant a daily meeting. Each student brought to the conference the book he had just read and the activity card. During these conferences the student told the story in his own words or read orally the section that he found especially interesting or had particularly enjoyed. Sometimes the conference consisted solely of a question and answer period. At other times, the period was taken up with a discussion of the story, including characters and incidents to which he reacted either favourably or unfavourably. These conferences usually lasted about five minutes, with the activities
varying to meet the needs of the student at that particular time.

Sharing time. A ten minute sharing time was scheduled three times a week. At that time students shared their evaluations of the books they had read. Some read interesting excerpts from their books while others showed their own illustrations of the funniest incidents or of incidents which most interested them. The intern noted that motivation for future reading took place here.

Mathematics

Since the students had no problems with the prescribed mathematics program, the internship covered a wide range of related topics. Fun With Numbers created a good springboard for further work on topics of interest, including the Celsius thermometer and the metric system.

Articles were read about numbers, including information about early means of counting and different number systems. Several students continued reading on these topics and shared their findings with the rest of the group.

The various aspects of symmetry were discussed and students demonstrated their knowledge of the topic by means of worksheets.

This segment of the program offered opportunities for the students to give concise instructions and clear explanations of mathematical ideas which interested them.
Science

A science centre was provided, containing the materials needed to carry out simple experiments. The materials provided depended upon the particular science books which were included in the library at the time. These books were selected to give the students an understanding of the underlying principles of everyday operations. For instance, by using plastic straws as rollers, a student discovered that it was easier to move a heavy object such as a box of chalk if it were put on rollers than it was to move it by pushing it along the surface of the desk. Another student discovered that a paper plate would balance on the top of a pencil eraser only when the plate was centered on the eraser. From this experiment also he drew the conclusion that the diameter passes through the center of a circle.

The students did the experiments and completed the activity cards in class. Some of them did more complicated experiments at home and brought the finished product to school to demonstrate to the others. One of these was a water-wheel, which the student had constructed from paper plates. The experiments completed at school were usually finished within a fifteen minute period.

Archaeology

The topic of archaeology was introduced by the book Creative Claywork. Students were encouraged to use
their own ideas to decorate models just as early man made designs on his cooking utensils, vases, and urns, with wood, cord, stones, and other materials available to him.

As a follow up to this discussion, the intern took some fossils to the classroom. Members of the group also brought fossils and some interesting specimens of animals from the diggings at Manuel's River. Discussions regarding these fossils and specimens created much interest in the topic of archaeology. The information that the students gained they were later able to relate to the artifacts that they saw on their field trip to the museum.

Informational Activities

To encourage students to work independently and to give them directions to do so, the intern spent approximately five minutes each day whetting their appetite by reading excerpts from books on specific topics. Other books pertaining to the topics were made available. Several activity cards were made up on each topic. Some activities were geared to group participation, others to individual work. Students could choose either method of participation.

Some of the topics included were: Oceanology—ocean currents and seafloor, flow of the tides, fish, sea plant life—mammals, dinosaurs, horses, weather, forests and plains. A full list is included in the "Other Sources" section of Appendix B.
Creative Thinking

According to James J. Gallagher, convergent thinking represents the analysis and integration of given and remembered data. It leads to an expected end result or answer because of the tightly structured framework through which the individual must respond. Divergent thinking represents intellectual operations wherein the individual is free to generate his own ideas within a situation, or to take a new direction on a given topic.¹

Convergent thinking is usually practiced in the classroom. To encourage divergent thinking, each week the intern allocated two periods of approximately fifteen minutes each for creative thinking exercises. Five minutes of this period took the form of a brain-storming session when the ideas were given without discussion. During the remaining ten minutes the ideas were discussed and evaluated, so that some were accepted, perhaps with qualifications, while others were discarded as not being applicable. One example of this exercise follows:

In answer to the question "If you were exposed to the cold, what things might you bring to comfort you?" students gave thirty-nine items but after discussing them accepted only twenty-two.

When the project was a demonstrative type of

activity, such as "Guessing what is in the Box," the
sessions were only of five minutes duration. In this
exercise the students could experiment with the box by
handling, lifting, shaking, and smelling it to establish
some basis for an hypotheses. They asked questions which
required a "yes" or "no" answer. By phrasing their
questions in this manner they cut down on the time neces-
sary to formulate a conclusion. This exercise illustrated
the process of synthesis:
- recognizing that there is an unknown factor
- making guesses on the basis of available facts
- experimenting, testing, eliminating guesses
- making better guesses
- eliminating bad guesses on the basis of additional
  information
- making better guesses, synthesizing facts obtained
- verifying the final answer

Such activities were aimed at training the
students to be concise and to the point in expressing
their ideas, to ask explicit questions, and to develop
the ability to look at different possible solutions to a
problem.

Field Trips

During the internship period the children partic-
ipated in two outings. One was a picnic to a park in a
nearby community, the other was a field trip to Signal
Hill Interpretation Centre and the Museum in St. John's.

These trips provided an opportunity for the students to discuss the necessary preparations and their expectations. They were asked to be prepared on their return to write a report of the picnic. This report would take the format of a newspaper report including why, what, where, when, and who.

The intern, the teacher, and some parents accompanied the whole class on the field trip. The students recorded the things which interested them most. Their prepared reports were taped and replayed to the individuals and, with their permission, were presented to the whole class.

All of the activities for this program are included in detail in Appendix C, following the order outlined in this chapter.
Chapter 4

EVALUATION OF THE INTERNSHIP

The evaluation of the internship was concerned with the relationship of the program to the total school program, with the views and reactions of the parents of the participating students, and especially with the effects of the program on those students. Student reaction and opinions, parent opinions, and the intern's general observations are presented to illustrate the effectiveness of the program. The program was assessed while it was in progress and at the end of the school year; that is, the evaluation was both formative and summative.

STUDENT REACTION

Student reaction to the program and materials was noted in the anecdotal records which the intern kept for each student. These records included the number and kinds of projects undertaken and books read by each student. His activity cards, work sheets, and project records were also kept in a file folder. These records revealed that all students participated in all topics in varying degrees. Their individual interests were evident in the projects which they worked on in depth in their free time and at home.
All students reacted favourably to working independently, to working together as a group, and to working with other students not included in the project. They appeared to gain confidence in their ability to make a worthwhile contribution and were willing to share their internship experiences with others.

It was encouraging to see the students develop better study habits as they worked independently and greater tolerance of, and cooperation with, others as they worked together on projects. These behaviors were all significant in contributing to good discussion sessions. The most significant result of these sessions was the ability of most students to assume the role of group leader in a discussion. These tangible and intangible aspects of the program are of major importance.

Student opinions were recorded throughout the program and each was asked for his reaction at the end of the internship. The opinion that the program had been fun was unanimous. On various occasions throughout the internship participants said that the program was enjoyable and that they did not consider the projects and activities as work, even though they continued the projects and research in their free time and at home. The enthusiasm with which they participated in the various projects and activities indicated their enjoyment of the program. They liked working on their own to accomplish a task and then being able to demonstrate it or share how it had been done.
Perhaps this can be accounted for by the fact that the choice of the projects was theirs and reflected their interests. At various times the students expressed the desire to continue the program into the afternoon session, and at the end of the internship they expressed disappointment that it would not be continued next year.

Requests came from the other students to have the internship books made available to them. They were, therefore, shown how to use the library index card system so that they could use the internship books as well as the books in the classroom library. Often, after reading a book, one of those children requested the teacher to ask him questions about it. On such occasions she conducted conferences with the children asking them questions similar to those used in the Individualized Reading Program.

Because those students asked when the intern would work with them, arrangements were made for her to do so when the puppet plays were produced and again at the end of the year after the field trip. They expressed pleasure at being included in writing a report of the trip and taping the report to be replayed for the class.

The project students shared their internship experiences with those who were interested and, as a result, the other members of the class brought more exhibits to school.

The students' productivity, their enjoyment of the program, and their desire to have it continued were
indicative of the success of the project.

TEACHER EVALUATION

The classroom teacher stated her belief that this program did benefit the students in the classroom. She commented on the enthusiasm shown by the project group and how they had used their free time to work on projects begun during the project time, and she felt that during the internship the students accomplished more and better work. They appeared to have enjoyed the total program and wanted the others to know about it. They were very cooperative and patient in explaining and answering questions about their experiences when they shared them with the students who were interested in the various projects.

She felt that the program affected the other children in that they wanted to become involved. They did become involved at various times, for example, bringing fossils and sea shells at the appropriate time, making puppets, and producing a play.

She also felt that the program had affected the other children in that they wanted to read more books. She was impressed with the enthusiasm they showed when asked questions similar to those asked of the project group and thought that the pupils showed their interest when they made personal record sheets of the books they had read. She noted that some children did more reading and that even some pupils who didn't ordinarily read in
their free time did do some reading during the internship.

The teacher felt that all students enjoyed the extended library, the puppets, the writing, the taping, and, above all, the science projects. She expressed her intention of implementing such activities in her classroom next year. She had observed the advantages of carrying out the program in the classroom, because it was more than a time filler in that it provided purposeful activities for the bright students who finished the prescribed work quickly. Their free time was taken up with working independently and in groups. One additional advantage of the work area approach, which she noted during the internship, was the involvement of the other students and their new interest in reading. So, in this way it benefited the whole class.

The teacher emphasized that it was the time involved in producing the program that was the deterrent for the regular classroom teacher in providing for the bright child. From having observed and been involved with the internship, she decided upon the direction she would take in implementing such a program in the future.

The principal showed his interest throughout the internship by visiting and observing the program in operation, taking time to chat with the students about what they were doing. He stated that he felt the internship had focused upon a definite area of need within the school and one in which the teachers were interested. He
expressed interest in having this type of program implemented in other classes as an integral and ongoing part of the school curriculum.

PARENTS' EVALUATION

The parents were contacted at the beginning of the internship, at which time all expressed pleasure that a challenging program was going to be provided for the bright children. All expressed a desire to help in any way they could. The intern suggested that some of the projects could be continued at home if the students desired. If they were continued at home, the support and interest of the parents might contribute to the effort being made by the student.

This interest and support was evident in such projects as the puppetry activities. One parent supplied large pieces of bristol board for the theatre and for the bulletin board. In one instance, because of family circumstances, the mother was unable to help the child make a puppet, so the father took the request to his place of employment where a member of the handicraft department produced a beautiful mother bunny. This was used and enjoyed by the whole class. The intern provided the play dough for making the puppets. The next day, however, several students asked for the recipe because their mothers wanted to make some for them to use at home. All the students then wrote out the recipe for two methods of
making the dough.

Since the intern lived in the community where the internship was carried out, several personal contacts were made at community functions. At these and in subsequent phone calls, parents related how interested the children had been in the projects initiated at school. Students were reported to have used the encyclopedia at home to find information. One student, for example, used the encyclopedia to find the names of fish.

One parent told how her children had reported the day's activities over the evening meal and how they had demonstrated some of the activities, especially the synthesis exercises. All the family became involved in solving the problem. It had been an experience for the whole family and the whole family had enjoyed it.

One parent commented on his child's growth in self-confidence while another parent reported how an older child in the family had commented on the broadened vocabulary of his sister since she had been participating in the internship.

At the end of the year a report of the activities was sent to the parents (see Appendix D). One parent phoned to say that had he known producing a newspaper was to have been one of the projects, he would have arranged for a tour of a newspaper plant.

At the end of the internship the intern made phone calls to the parents. Their comments included how much
the children had enjoyed the program; how pleased they were with what their children had done; how they appreciated what had been done for their children, how it had broadened their thinking; how delighted they were to see how it had stretched their children's imagination, and how it had been a challenge to them; how it appeared to have been a comprehensive program, and how they could see the achievement in the carry-over at home. All parents inquired if this would be an on-going program and expressed the wish that it might be continued. Several parents stated their preference for this kind of program for the bright children, that is, acceleration within a grade rather than skipping a grade.

INTERN'S EVALUATION

From the intern's point of view, the materials tried with the group were successful in challenging the learning capacity of the students. The materials for the projects were readily available; most of them the children could obtain at home. The bright students needed this stimulating program, were able to cope with it, and enjoyed it.

During the internship these children worked independently with little direction from the intern. A relatively short period of time was required to introduce each aspect of the program. The writer found, as did
Labuda, Torrance, Syphers, and Strang, that bright children are alert, and learn rapidly. During the nine weeks that the writer worked with them, they did retain what they learned.

A summary of the evaluation of the people concerned shows that:

From the students' point of view, the program had been enjoyable and was one which they would like to continue next year.

From the parents' point of view, the program was both interesting and challenging for the students. They would like to see it continued next year.

From the teacher's point of view, it was beneficial and challenging and attained the proposed objectives. She signified her intention of implementing a similar program in her classroom next year.

From the intern's point of view, the program had met a need and had demonstrated that it was feasible to

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offer such a program to the bright students.
Chapter 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter contains a summary of the internship, a discussion of major conclusions drawn from the internship, and recommendations for implementing a program for the bright students as an integral part of the school curriculum.

SUMMARY

This internship was designed to implement a challenging program for the bright children in a grade three classroom. The students were identified by the results of an I. Q. test, school records, and teacher observation. The program was carried out during a nine week period from mid-April to mid-June. The intern met with the students for one and one-half hours each day.

Included in the program were individualized reading, drama, and puppetry, science experiments, creative thinking, and mathematics. A major part of the program was based on the interests of the students.

To evaluate the program, opinions were gathered from the students, teachers, and parents. Their responses indicated that the program had been enjoyable and effective.
CONCLUSIONS

This internship and the review of literature indicate that a program to challenge the bright students in the classroom is desirable and feasible. There is also indication that the program developed in this internship can be implemented beneficially in self-contained, heterogeneous classrooms of schools using a graded organization pattern.

The results of the evaluation indicate that the teachers and parents felt that this type of program was successful in challenging the learning capacity of the bright students.

RECOMMENDATIONS

The following recommendations are made to guide school personnel in the implementation of challenging programs for the bright children in a regular classroom situation:

1. Bright children should be identified early in the school year, so that the program can be carried out throughout the year.
2. The bright student should be permitted to work on his own and to select projects that interest him.
3. Work areas should be provided and readily available at all times.
4. The parents should be informed of the program and their
5. An individualized reading program should be incorporated with the regular reading program for the bright children. It is recommended that the teacher begin with one or two children and gradually add to the number.

6. Students should be given responsibility for keeping a record of the projects they do. A simple filing system could be designed by the teacher and students. The completed projects should be filed where they are readily available to the teacher. Projects and comments could be returned in the same manner.

7. Activity cards or work sheets should be prepared and filed in a kit. These cards should cover a variety of topics based on the interests of the students. Because students could work on them independently, the teacher would have more time to work with those who needed individual attention. This should make it possible for all students to acquire new interests as well as extend existing ones.

8. Consideration should be given to providing help for teachers in identifying bright children and in developing programs for them. This help could be provided in the form of inservice education. Memorial University might be requested to provide a course for this purpose.

9. Full use should be made of all library facilities
that may be available. These may include a community library, a travelling library, a school library, and private libraries.


PERIODICALS


APPENDIX A. Questionnaire
QUESTIONNAIRE

Instructions to students: There is no right or wrong way to finish the sentences. Just write down what you feel about each.

Name

1. I wish I knew how to

2. If I had more time I'd

3. I'm not very good at

4. I'd like to learn how to

5. Mostly I'd like to

6. When I finish school I'll

7. In school I'm bored with

8. When I grow up

9. I don't like to

10. I'm good at

11. What grown up people do you like best (other than your parents)?

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APPENDIX B. Reading Material
READING MATERIAL

Ainsworth, Ruth. *Sugar and Spice.*

Allee, Velva Elwell. *About the Vegetables on Your Plate.*


 Andersen, Hans Christian. *The Ugly Duckling.*


 Andersen, C. W.. *Billy and Blaze.*


 Bendick, Jeanne. *Science Experiences--Shames.*

 Bendick, Jeanne. *Take a Number.*

 Blakely, Peggy. *Look For Colours.*

 Branley, Franklyn M. *Darkness In Daytime.*

 Bronson, Wilfred S. *Cats.*


 Buck, Pearl S. *The Big Wave.*

 Buck, Pearl S. *The Chinese Story Teller.*

 Buff, Mary and Conrad. *Hurry, Skurry and Fluffy.*

 Butler, Beverly. *The Wind and Me.*

 Carona, Philip. *I Want To Know About.*

 Cartwright, Sally. *The Tide.*


 Cheney, Cora. *Skeleton Cave.*

Ciardi, John.  You Read to Me, I'll Read to You.

Colm, Padraic.  Sung Under the Silver Umbrella.

dé la Mare, Walter.  Peacock Pie.

dé la Mare, Walter.  Rhymes and Verses.  Collected Poems

for Young People.

Domanska, Janina.  The Turnip.

Dupuy, William.  The History of the Norse.


Ets, Marie Hall.  Little Old Automobile.

Farjeon, Eleanor.  The Old Nurse's Stocking Basket.

Feravalo, Rocco V.  Magnets.

Flack, Marjorie.  The Story of Ping.

Flack, Marjorie.  Angus and the Cat.

Flack, Marjorie.  Ask Mr. Bear.

Powke, Edith.  Sally Go-Round the Sun.

Froman, Robert.  Faster and Faster.

Froman, Robert.  A Game of Functions.

Gag, Wanda.  Snow White and the Seven Dwarfs.

Grimm, Jacob and William.  Little Red Riding Hood.


Hader, Berta and Elmer.  The Big Snow.

Harris, Christie.  Once Upon a Totem.

Haviland, Virginia.  Favourite Fairy Tales Told in Russia.

Haviland, Virginia.  Favourite Fairy Tales in Czechlovakia.

Highland, E. H.  Mathematics.

Hill, Kay.  More Glooscap Stories.

Hodges, Margaret. The Wave.
Hoff, Syd. The Horse in Harry's Room.
Holsaert, Runice and Faith. Ocean Wonders.
Hurliman, Ruth. The Cat and Mouse Who Shared a House.
Ipcar, DaHlov. One Horse Farm.
Ipcar, DaHlov. World Full of Horses.
Isenstein, Harald. Creative Claywork.
Jameson, Cynthia. Winter Hut.
Jarrell, Randall. Snow-White and the Seven Dwarfs.
Kramp, Harry. Swimming.
Larrick, Nancy. See For Yourself.
Lear, Edward. Nonsense Songs.
Leipold, L. Edmond. Folk Tales of Germany.
Lqodhas, Sorche Nic. Always Room For One More.
MacAgy, D. and E. Going For a Walk With a Line.
May, Julian. Horses--How They Came to Be.
McCloskey, Robert. Lentil.
McCloskey, Robert. Time of Wonder.
McCloskey, Robert. Make Way For Ducklings.
McCloskey, Robert. Blueberries For Sal.
McCloskey, Robert. One Morning in Maine.
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Meeks, Esther. The Curious Cow.
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Pimsleur, Paul. Poems Make Pictures.
Podendorf, Illa. Shapes, Sides, Curves and Corners.
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Schneider, Herman and Nina. Science Fun With Milk Cartons.
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Zappler, Georg.  From One Ancestor.

OTHER SOURCES

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Life Nature Library.  The Insects.
  "  "  The Mammals.
  "  "  The Reptiles.
  "  "  The Universe.

National Health and Welfare.  Get Wet.

Spencer Press, Inc.  The Children's Hour.

Volume 1.  First Story Book.
  2.  Favourite Fairy Tales.
APPENDIX C. Activities
LIBRARY ACTIVITIES

The following rules were composed by the students, printed on poster paper, and displayed in the reading corner:

**Our Library Book Rules**

1. We have clean hands before we handle our books.
2. We turn pages of books from the upper right hand corner with dry fingers.
3. We don't turn down page corners or use pencils or rulers as book markers.
4. We don't mark our books or tear the pages.
5. We don't bend our books and break the binding.
6. We use paper bookmarks to mark the page where we finished reading.
7. We cover our books with plastic when carrying them in wet weather.

**Our Library Conduct Rules**

1. We move and speak quietly.
2. We are courteous to others.
3. We leave the library corner tidy.
4. We learn where the books are and return them to the proper place.
5. We print our names neatly on the sign-out cards.
6. We leave the sign-out cards in the file box under the last name of the author.
7. We return our books promptly to the library.
PUPPET MAKING

Directions for making instant puppets:
1. Take a styrofoam ball.
2. Make features with felt tip pen, or scraps of paper, felt, cloth, or wool.
3. Loop on yarn hair.
5. Suggest character by adding a ribbon, flower, or feather.

Directions for making sock puppets:
1. Cut a slit across the toe of an old sock.
2. Cut an oval shaped piece of red material approximately two inches wide by three inches long.
3. Insert oval into the slit made in sock and sew it to the sock.
4. Cut ears of the animal wanted and sew in place.
5. Sew on eyes or draw with a marker.

Directions for making plasticine puppets:
1. Use plasticine or play dough. Form the head and torso of the puppet desired.
2. If play dough is used, make sure finger can be inserted in body before it is left to dry.
3. These can be dressed and decorated as desired.
These clay or plasticine puppets are sometimes called "Thumb Puppets."
Directions for making stick puppets:

1. Draw an outline figure on a piece of lightweight construction paper or oaktag.
2. Paste the figure on cardboard, cut out and mount on a stick, such as a dowel rod, by means of a thumbtack.
3. Colour or paint to fit the character of a puppet.
4. Arms, legs, trunks, tails, and other movable parts can be appended by using brass fasteners or by attaching wires to them and then fastening them to the stick.

Directions for making paper bag puppets:

1. Use a small bag whose corners at its bottom are stapled to make the bag round.
2. Turn the bag inside out and stuff to make a head.
3. Insert a round tube, such as a toilet tissue core, into the bag and make a neckline by drawing a string around the tube below the head.
4. Cut holes in the sides of the bag to accommodate the thumb and middle finger.
5. Paint the features on the face.

To make other puppet heads, use:

Apple, carrot, cotton-stuffed sock, darning egg, gourds, light bulbs, potato, rag doll head, rubber ball, soap, sponge, styrofoam, socks; turnip, yam.
Card 1
The man went down the street.
In what way could you add to or change the word "man" to give a clearer picture of the man.
In what ways could you change other words in the sentence to make us see this man going down the street.

Card 2
Choose one of the following sentences and write a paragraph about it.
1. The large colourful box drew all eyes to it.
2. After all, it was only a mouse.
3. A long lonely howl broke the silence.

Card 3
Choose three of the following phrases and write a story about them:
high-fenced yard, yelling crowd, stormy crowded beach, abandoned mine, faithful horse, floundering ship, loud siren.

Card 4
Tell the most exciting or amusing experience, imaginative or real, that you have had in the past few months.

Card 5
Write a story using pictures for as many of the words as you can.
Write a new ending to an old favourite fairy tale.
or
Write a fairy tale or folk tale. These stories have forces of good and evil. Usually good overcomes evil. Remember that conversation helps move a story along.

Tell how a doughnut feels, smells, and tastes.
or
Write a story telling the life of a doughnut.

Follow these directions:
1. Take a sheet of paper and fold it in half.
2. On one half of the paper make one line with a marker.
3. With a different colour marker draw a picture incorporating the original line.
4. Unfold the paper. On the plain half write a story or poem about the picture you have drawn.

Follow these directions:
1. Take one sheet of paper and a marker.
2. Close your eyes and make two curved lines on the page.
3. Open your eyes, make a picture incorporating the lines you made.
4. Write a caption for the picture, and newspaper report.
Card 10
1. Take a sheet of paper and fold the paper in half keeping the fold toward the body.
2. With a marker draw three random lines on the paper.
3. Exchange paper with another child.
4. Place the paper on your desk so that the fold is toward your body.
5. Using another colour marker, make a picture incorporating the three lines already on the paper.
6. When the picture is completed, open the paper to the full size and on the blank area write a story, poem, or play about the picture.

Card 11
Choose one of the following and finish the story:
1. Most of all I would like to
2. If I could be
3. Grown up me in 1985

Card 12
1. Pretend you are an old shoe.
2. Tell the story of your life.
3. Draw a picture to go with the story.

Card 13
1. Be a fire engine.
2. Tell of your experiences of the past week.
3. Draw pictures to go with the story.
Card 14
Choose one of the following and finish the story:
1. When I was a baby
2. If I had three wishes
3. I think that I shall never feel

Card 15
1. Select a scenic picture from a magazine.
2. Paste it on a sheet of construction paper.
3. Write a description of the picture.
4. Write a story about the holiday you had there.

Card 16
Choose one of the following and write a nonsense story. Illustrate it.
1. a home run
2. time flies
3. tree bark
4. a jelly roll
5. a pen point

Card 17
1. Draw an animal unknown to man.
2. Write a description of his life, food, habits, and enemies.
Card 1
Write a poem about what you see through a window pane.

Card 2
Write a verse using as many words as possible that begin with the letter "g" or "s" or "b".

Card 3
Write a poem to match one of the patterns below.
(a) ________________  (b) ________________
_____________________  ____________________

Card 4
Write a poem describing a favourite book character.

Card 5
How many poems can you make by using these four rhyming words:
you, too, few, moo.

Card 6
Think of an object.
Describe it in a poetic way.

Card 7
Think of a book you have read recently.
Write the story as a poem.
Card 8
Do one of the following:
1. Write a poem about your pet.
2. Write a poem about the weather today.

Card 9
Write a poem to match one of these patterns:

__________________________  __________________________
__________________________  __________________________
__________________________  __________________________
Illustrate the poem if you wish.

Card 10
Choose a shape.
Make a poem to match the picture.

Card 11
Here are four rhyming words: sing, bring, wing, ring.
How many verses can you make?
PLAY DOUGH RECIPES

Cold Water Method

Ingredients:

1 cup flour
1 cup salt
1 teaspoon alum

Directions:
Mix all ingredients together. Add water until the mixture feels like clay. It is then ready to use.

Cooked Method

Ingredients:

1 cup flour
\(\frac{1}{4}\) cup salt
\(\frac{1}{4}\) cup water

Directions:
Mix cold, then cook until it holds shape. Stir constantly. Colour while kneading. Keep in an airtight jar.
BOOK RECORDS

Record Book
1. Place ten sheets of paper between two sheets of construction paper.
2. Staple together.
3. Title the first page Table of Contents.
4. Put one of the following categories of books on the top of each page:
   Adventure
   Animal Stories
   Fairy Tales
   Folk Tales
   Historical Fiction
   Informational
   Poetry
   Realistic Fiction
   Science
5. As you complete a book, record the title and the name of the author on the appropriate page.
6. Decorate the cover as you wish.

Indian Headdress Book Record
1. Draw the head.
2. Draw the headband.
3. Add a feather for each book read. On it write the title and the name of the author.
Clown Book Record
1. Draw a clown with one arm outstretched to hold the balloons.
2. Add a balloon for each book read. On it write the name of the book and author.

Vase or Basket Book Record
1. Draw a vase or basket.
2. Cut out flowers from construction paper.

Envelope Book Record
1. Draw a self portrait or paste a photo on an envelope.
2. As each book is read, write the name of the book and author on a slip of paper and insert it into the envelope.

Log Train Book Record
1. Use black yarn for tracks.
2. Draw a flat car.
3. As each book is read, add a coloured log containing the name of the book and the author.

Bookworm Book Record
1. Draw the head.
2. Add a segment of the body for each book read.
Apple Tree Book Record

1. Draw an apple tree.

2. Cut out apples from red construction paper.

3. As each book is read, write the name of the book and author on an apple and paste it to a branch of the tree.
ACTIVITY CARDS

The activity cards were designed for the use of the students. Some of these cards contained general questions which could be applied to most books. Other cards were designed for specific books. An appropriate card was slipped inside the back cover of each book.

Card 1.
Title:
Author:
Genre:
Who is the main character?
Describe the most exciting happening in the book.
Describe the funniest happening.

Card 2.
Title:
Author:
Genre:
What is the plot of the story?
Where does the story take place?
Describe the most exciting happening.
Describe the saddest happening.

Card 3.
Title:
Author:
Category:
Card 4
Title:
Author:
Genre:
What work did horses do in Grandfather's day?
What has replaced horses?
What work do horses do now?

Card 5
Title:
Author:
Genre:
Read to page 40. Write what you expect will happen. Read the rest of the story. Compare your ending with it. Tell how they differed.

Card 6
Title:
Author:
Genre:
Describe one method of swimming.
Name three swimming games.
Describe one swimming game.
Card 7
Title:
Author:
Genre:
Who was the auto unkind to?
What happened to him?
What happened to his parts?

Card 8
Title:
Author:
Type:
How do we know what early horses looked like?
How old are horses?
How have horses helped man?

Card 9
Title:
Author:
Type:
Choose any poem. Write a verse to add to the poem.

Card 10
Title:
Author:
Category:
Choose one poem. Write another verse for the poem.
or Write a poem about a wild animal.
Card 11
Title: 
Author: 
Genre: 
Do one of the following:
1. Choose the character you dislike most. Describe the character and tell why you dislike him/her.
2. What was the saddest incident? Why?
3. Go to page 58. Write a different ending to the story.

Card 12
Title: 
Author: 
Genre: 
Who was considerate?
Who was a dangerous driver?
What happened in the end?
Write five important safety rules.

Card 13
Title: 
Author: 
Genre: 
Read the book.
Return to page 27.
Write a different ending for the story.
Illustrate your ending.
Card 14
Title:
Author:
Category:
Describe the frightening experience.
Who helped Tony? How?
Which lesson can you apply to yourself?

Card 15
Title:
Author:
Genre:
Describe a frightening experience.
Who helped Tony? How?
How would you feel if someone pushed you into the water?

Card 16
Title:
Author:
Genre:
Do one of the following:
1. Describe the changes that took place in one character.
2. Why did the cat behave as she did?
3. What incident is described on page 25?

Card 17
Title:
Author:
Type:
Do one of the following:
1. Name the shapes and write a simple explanation of each.
2. Pick one shape. Name ten things that are this shape.

Card 18
Title:
Author:
Genre:
Do one of the following:
1. Choose the character you dislike most. Describe the character and tell why you dislike him/her.
2. What was the happiest incident? Why?
3. Return to page 38. Write a different ending to the story.

Card 19
Title:
Author:
Genre:
Do one of the following:
1. Choose the character you like most. Describe the character and tell why you approve of him/her.
2. Describe the funniest incident. Why?
3. Return to page 56. Write a different ending to the story.
Card 20
Title:
Author:
Is this story fact or fiction? How do you know?

Card 21
Title:
Author:
Category:
Write five good water safety rules.

Card 22
Title:
Author:
Category:
Write five good safety rules to follow when riding a bicycle.

Card 23
Title:
Author:
Type:
Write five good traffic rules that pedestrians should follow.

Card 24
Title:
Author:
Category:
What action is suggested by the title?
Card 25
Title:  
Author:  
Genre:  
What does a horse need?  
Why didn't the horse leave?  

Card 26
Title:  
Author:  
Category:  
Locate and be prepared to read sentences in the book that tell why each character behaved as he did.  

Card 27
Title:  
Author:  
Genre:  
Be prepared to describe changes in characters as they evolved throughout the course of the story.  

Card 28
Title:  
Author:  
How do you know the author was interested in the subject?  

Card 29
Title:  
Author:  

What was the most important decision that the Tin Soldier had to make?

Card 30
Title:
Author:
Category:
What was the most important decision that the old man had to make?
How did this decision affect the villagers?

Card 31
Title:
Author:
Genre:
Why were Sal and her mother picking berries?
Why were Baby Bear and his mother eating berries?

Card 32
Title:
Where and when did this story take place?

Card 33
Title:
Author:
Genre:
Can you tell another story, or relate a true experience of your own, in which a similar problem was encountered?
Card 34
Title:
Author:
Genre:
Give one new word, fact or idea that you have learned from reading this book?

Card 35
Title:
Author:
Category:
Would you recommend this book to others? Why or why not?

Card 36
Title:
Author:
Genre:
What lesson does this story teach?

Card 37
Title:
Author:
Category:
Answer one set of the following questions:
1. What colour is seen first in the book?
What floats in the blue sky picture?
2. What things are red?
Name the blue things in the book.
3. Are all fire engines red?
   If not, what other colour fire engines have you seen?
4. What colour is a leaf after it falls from a tree?
   What colours are in the rainbow?

Card 38
Title:
Author:
Genre:
What is beautiful about the neck of a swan?
Why did the ugly duckling run away from home?
What frightened the wild ducks and the ugly duckling from the marsh?
What happened to the ugly duckling during the winter?
What made him happy?
What do you think the duckling found to eat in the winter snow?

Card 39
Title:
Author:
Genre:
Which two animals frightened Mrs. Mallard?
What did the people on the boats throw to the ducks?
Name the river in which the ducks found an island home.
What was unusual about the names of the ducklings?
Name the street the four policemen blocked off for the ducklings.
Card 40
Title:        
Author:      
Genre:       
Why was Mrs. Mallard unhappy with the possible nesting places she and Mr. Mallard flew over? 
What was nice about the nesting spot they selected? 
How many ducklings hatched? 
How did the ducklings spend their days in the Public Garden? 

Card 41
How would you solve the same problems as those encountered by the characters in this story? 

Card 42
Title:        
Author:      
Genre:       
Name the two girls in the story. 
What did Sal feel in her mouth? 
What was Sal's father digging for? 
What would Sal have wished for if she had not dropped her tooth in the sand? 
What was Sal's family going to have for lunch? 

Card 43
Title:        

Author:

Genre:

How did Sal's mother make her daughter feel better about her loose tooth?

What animals did Sal tell about her loose tooth?

Where did Sal lose her tooth?

Why did Sal and Jane go to Buck's Harbour with their father?

Why was Sal's tooth like the spark plug in the motor?

Why did the girls wear life jackets in the boat?

Do you think this is a true story? Why or why not?
PUPIL-TEACHER CONFERENCE

Some of the activities which took place during the Pupil-Teacher Conferences are listed below:

1. Retelling of the story by the student.
2. Oral reading by the student.
3. Question-answer session.
4. Check by teacher for comprehension and projection of ideas.
5. Discussion of story, characters, and incidents.
6. Taping of oral reading or reporting.
7. Pupil evaluation of his own achievement.
8. Discussion of written report.
10. Selection of book to be read next.

These activities varied to meet the needs of each individual.
SHARING SESSIONS

A ten minute sharing time was scheduled three times a week. The students practiced courtesy in talking together. They learned that everyone is entitled to his own opinion and should be given the opportunity to support it.

The following are some sharing time activities:

1. Students read interesting excerpts from their books.
2. Some students showed their own illustrations of the funniest incidents or of incidents which most interested them.
3. The teacher guided the discussion of books and included the following questions:
   - Why is this book titled as it is?
   - Do you feel that the title is a good one?
   - What characters did you like the most?
   - What characters did you like the least?
   - Which character would you like to know personally?
   - Do you think the ending is appropriate?
   - Can you suggest a different ending? What is it?
   - How would you have solved the problem facing the main character?
Card 1
Make an abacus.
Show how it is used.

Card 2
1. Cut pieces of cardboard to measure:
   3" x 5", 4" x 6", 2" x 6", 2 1/2" x 8".
2. Arrange the cards in order of size.
3. Compare the areas.

Card 3
Convert 68 Fahrenheit into Celsius.

Card 4
Convert 22 Celsius into Fahrenheit.

Card 5
Title:
Author:
From this book, choose one fun computation.
Demonstrate your ability to use it with another student.
SYMMETRY EXERCISES

Card 1
List the letters which show symmetry.

Card 2
Make a list of fruits which are symmetrical.

Card 3
Make a list of vegetables which are symmetrical.

Card 4
List ten things which are symmetrical.
List ten things which are non symmetrical.

Card 5
Fold a sheet of paper in half.
Fold in half again.
Use a sharp pencil to make a hole through the paper near the edge of one fold in the middle of the paper.
Near the opposite fold and at the top of the paper make a hole through all. Make a second hole on the same side but near the bottom of the paper.
Open the paper. Describe the pattern.
Card 1
Title:
Author:
Choose one experiment.
List the things needed.
Do the experiment.
Be prepared to demonstrate it.
Describe what happened.
What scientific concept does it demonstrate?

Card 2
Title:
Author:
Choose one experiment.
List the apparatus needed.
Do the experiment.
Describe what happened.
What scientific concept does it illustrate?

Card 3
Make a daily weather chart for the month.
FINDING INFORMATION.

Card 1
Most books that we use for finding information have a table of contents and an index. The table of contents is usually at the beginning of the book and it tells us what each chapter is about and the page on which it begins. The index, which is at the back of the book, tells us on which pages we shall find information about the people, places, and things mentioned in the book.

Find the book The Universe. Use the table of contents to find the chapter on the biography of the sun. Read pages 95-103. Now answer these questions:

1. What star do we live by?
2. Why do you think it is called a furnace?
3. How far is the earth from the sun?
4. How old is the Milky Way?
5. On pages 98-99, what does each dot represent?
6. What is used to study the sun?
7. What causes a sun spot?

Card 2
Most books that we use for finding information have a table of contents and an index. The table of contents is usually at the beginning of the book and it tells us what each chapter is about and the
page on which it begins.
The index, which is at the back of the book, tells us on
which pages we shall find information about people, places,
and things mentioned in the book.

Find the book The Mammals. Use the table of contents to
find the chapter on Survival.

Look at the pictures and read the captions. Now answer
the questions:
1. What is the title of the chapter?
2. Describe the threatening posture of the timber wolf.
3. What happens to the ridges on horns?
4. How are antlers different from horns?
5. What happens to the weasel's coat in the spring and
   fall?
6. What does a hedgehog do when threatened?
7. Which animal pretends to be dead when threatened?

Card 3

Most books that we use for finding information have a table
of contents and an index.
The table of contents is usually at the beginning of the
book and it tells us what each chapter is about and the
page on which it begins.
The index, which is at the back of the book, tells us on
which pages we shall find the information about the people,
places, and things mentioned in the book.

Find the book Mathematics. Use the table of contents to
Most books that we use for finding information have a table of contents and an index.

The table of contents is usually at the beginning of the book and it tells us what each chapter is about and the page on which it begins.

The index, which is at the back of the book, tells us on which pages we shall find information about people, places, and things mentioned in the book.

Find the book **Magnets.** Use the table of contents to find the chapter on the compass.

Read the chapter. Now answer these questions:

1. What is the title of the chapter?
2. Name the four points of the compass.
3. What is the needle?
4. What pulls the needle towards the North?
5. What did early sailors use to tell directions?
6. Describe how to make a compass.

Card 5
Most books that we use for finding information have a table of contents and an index.
The table of contents is usually at the beginning of the book and it tells us what each chapter is about and the page on which it begins.
The index, which is at the back of the book, tells us on which page we shall find the information about people, places, and things mentioned in the book.
Find the book The Reptiles. Use the table of contents to find the chapter on reptiles.
Look at the pictures and read the captions. Now answer these questions:
1. How can we tell which group a reptile belongs to?
2. How long did reptiles dominate the earth?
3. Which two orders have survived?

Card 6
Find The Insects from Life Nature Library.
Turn to the index at the back of the book.
The index is there to help you find information quickly about things you are interested in. It directs you to the page or pages you need without your having to read the.
whole book.

1. Find the name Bristletail. You will find it says Bristletail, 15. This means that you will find it mentioned on page 15.

2. Turn to the page and write down what you find about it.
CREATIVE THINKING

Card 1
Brainstorming Assignments

1. List as many uses as you can for a newspaper.
2. List as many square things as you can.

Card 2
Brainstorming Assignments

1. List as many uses as possible for an automobile tire.
2. List as many uses as possible for a candle.
3. List as many uses as possible for a brick.

Card 3
Brainstorming Assignments

1. How many ways can water be made to work?
2. How many ways can you think of to use a paintbrush?
3. How many ways can you think of to use a toothpick?
4. How many ways can you think of to use a mirror?
5. How many ways can you think of to use a light bulb?

Card 4
Brainstorming Assignments

1. List all the things that might bring you comfort if you were hot.
2. List the things you would do if you were left alone to entertain yourself for an evening.
Card 5

Brainstorming Assignments
1. What things can be used instead of a hammer for pounding a nail?
2. If you were exposed to the cold, what things might you bring for comfort?

Card 6

Conceptual Tasks
1. How many ways can a chair be used?
2. How many ways can a pencil be used?
3. How many ways can a ruler be used?
4. How many ways can a table be used?

Card 7

What Would Happen
What would happen if:
1. the ocean dried up?
2. the air all over the world became radioactive?
3. we had only three fingers?
4. the sun stopped shining?
5. pills were developed which would substitute for food?

Card 8

Flexible Thinking
1. Tell how the following are alike:
   - milk and meat
   - cat and mouse
2. Tell how the following are different:
   train and tractor
   yellow flower and butter

Card 9
What Would You Do?
You are walking in the woods one afternoon a mile from your home with your sister aged 7 and your brother aged 5. You are half a mile from the highway on a track running through thick trees. Suddenly your sister trips over a root and falls twisting her ankle. She cannot walk and it is getting late in the afternoon. What will you do next?

Card 10
What Would You Do?
The top of a salt shaker is stuck and you cannot twist it off with your hand. You don't want to risk breaking it by banging on it with a knife. You can't find the pliers. What will you do next?

Card 11
How Many?
1. Cut a large paper circle.
2. Cut up the circle making only four cuts.
3. How many pieces did you get?

Card 12
How Many?
1. Cut a large paper rectangle.
2. Making three cuts, how many pieces do you get?
3. How many pieces are symmetrical?

Card 13

Pattern-Meaning
1. On a sheet of paper, make five patterns using circles, vertical lines, squares, and triangles.
2. Pass the sheet to another student.
3. Write down all the different things you can think of that each complete pattern might suggest. You can turn the pattern around any way you wish.

Card 14

What's In The Box?
1. Handle the box to investigate the weight, sound, and smell.
2. Ask questions that require a "yes" or "no" answer.
3. The student who guesses the name of the object which is inside the box will be the next group leader and will conduct the game.
APPENDIX D: Report to Parents
Special
Project
Long Pond
1975
REPORT TO PARENTS

PROJECT INFORMATION

Often the textbooks and materials of the basal readers are not challenging enough for the bright students in the grade. Skipping grades is not the best technique for providing for these students, yet very little has been done to provide for rapid progress in the same grade. The purpose of this special project was to design some challenging, practical educational programs to meet the needs of the bright students in the Grade III classroom. For your information, a summary of some of the programs is given below.

Library

A library was provided with books chosen from the different categories of realistic fiction, science, folktales, animal stories, adventure, poetry, and historical fiction. Pupils indicated special interest in swimming, biking, and horses, so books on these topics were included.

Group discussions were held about the plot, theme, and characters of the different types of books. The students were able to generalize that folktales have forces of good and evil, some excitement, conversation, and good usually overcomes evil.

Another aspect of the library program was to find specific information in books by using the table of contents
and the index.

The students also learned how to use the library index card system.

**Individualized Reading Program**

Since the students had finished the basal readers, the individualized reading program was started after the first week. Basically, individualized reading consists of providing freedom for the student to select, from a variety of sources in the classroom, materials which are interesting and challenging but which he can read without too much difficulty. Almost any kind of reading material will do—we used library books, magazine articles, and newspapers. Interviews were held with each student at least every second day, while on other days each completed a worksheet about the book he selected to read.

Worksheets included questions that help students draw conclusions from fiction. Examples:

To predict outcomes—What action is suggested by the title of the book?

To detect mood—What was the saddest incident and why?

To interpret character—Choose the character you like the most. Describe the character and tell why you approve of her/him.

To draw conclusions—How can this book help you to know others better?

On several occasions, students wrote a different
ending to the story.

Progress was evaluated both formally and informally. The students kept a record of the books they read, recording them in categories.

Related Activities

The students made a puppet theatre, produced three plays and made backdrops to suit one of them. They made puppets out of play dough and learned how to make them from socks and scraps of material.

Poetry

Students composed their own poems on topics of interest to them, from rhyming words such as you, too, few, and moo. Other poems were written in patterns:

Creative Writing

The students wrote poems and stories and produced a newspaper in which they gave an account of their picnic, using the five w's— who, what, why, where, and when. They reported on an imaginary animal, giving a description of its life, food, habits, and enemies. The report was illustrated with a picture of the animal.

Each student chose one item from his individual newspaper to give as a newscast, which was taped. They
also wrote an account of something which interested them, particularly on the field trip to the Museum and Signal Hill. This was taped also.

Creative Thinking

The brainstorming technique was used to introduce the concept of creative thinking. This technique involves obtaining a number of ideas in a short time. Judgement and criticism are withheld until later, during the discussion of ideas—when some are accepted, some are rejected, while others are modified. Example:

In five minutes give as many uses as possible for a brick. They gave 42 uses, 23 of which were accepted after discussion.

Other items were—uses of a newspaper.

—if you were exposed to the cold, what things might you bring to comfort you?

This sort of training fosters broader thinking, an essential element in problem solving.

Science

Science books were provided and a worksheet prepared for each book. Example:

Choose one experiment.
List the things needed.
Do the experiment. Demonstrate it.
Describe what happened.
What scientific concept does it illustrate?
Mathematics

A variety of ideas were explored by having fun with numbers, lines, circles, squares, triangles, rectangles, and symmetry.

Results of the Project

The students have demonstrated, through their participation in the program, that they are capable of engaging in activities that challenge them to extend their knowledge and skill over and above what they are exposed to in the regular set program. They worked independently and in teams, achieving at a satisfactory level in both situations. They have exhibited planning, leadership, evaluation skills, self-discipline, creativity, and good work habits.

It has been a pleasure working with them.

Thank you for your interest, co-operation and willingness to have your child participate in the project.