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ABSTRACT.
        This design for the second year of a study of
elementary school reading instruction conducted by the Montgomery
County (Maryland) Public Schools' Department of Educational
Accountability is based on knowledge gained from the first year of
the study which examined not only reading comprehension instruction
in the elementary school, but also school factors which related to
effective reading comprehension instruction and improved student
performance. Following the executive summary, the background and
history of the kindergarten through grade eight instructional program
for teaching the English language arts (IPR/LA) is outlined in the
first chapter. The second chapter examines the first year results:
the implementation of the IPR/LA, reading instruction in general,
effects of programs on reading and related skills, and study
methodology and data collection instruments. The third chapter
details the revised design for the second year of the reading study.
Appendixes and attachments include definitions of types of discourse,
research questions and data collection procedures for the study of
elementary reading instruction, and sample schools proposed for the
reading study. (HOD)

MONTGOMERY COUNTY
PUBLIC SCHOOLS
ROCKVILLE, MARYLAND

The Design for the Second Year Study of Elementary Reading Instruction

November 1982

EDWARD ANDREWS
Superintendent of Schools

Prepared by the Department of Educational Accountability

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THE DESIGN FOR THE SECOND YEAR STUDY OF

ELEMENTARY READING INSTRUCTION

BY

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November, 1982

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EXECUTIVE SUMMARY

THE DESIGN FOR THE SECOND YEAR OF THE STUDY OF ELEMENTARY READING INSTRUCTION

BACKGROUND

During the 1981/82 school year, Montgomery County Public Schools' (MCPS) Department of Educational Accountability (DEA) conducted a pilot study entitled "A Study of Elementary Reading Comprehension and Related Instruction in MCPS". During the first year, the study became known informally as "The Reading Study" and will be referred to as such throughout this document. The impetus for this study came from two major thrusts:

o   Montgomery County, like many school systems around the nation, is reemphasizing instruction in the basic skills and reexamining instructional practices to see whether they meet current standards of excellence.

o   A new curriculum for teaching reading/language arts is currently being developed by MCPS' Department of Academic Skills and is being implemented in schools under the direction of area offices. It is important to examine this new program in the context of the full range of ongoing practices in reading instruction presently being delivered to MCPS students.

During the first year, the Reading Study explored ways to accomplish the following:

o   Describe reading comprehension instruction in the elementary schools and identify school factors which relate to effective reading comprehension instruction and improved student performance

o   Examine the implementation of the new reading/language arts program (The Instructional Program in Reading and Language Arts—IPR/LA).

This report will summarize what has been learned so far by (1) briefly reviewing what was learned about reading instruction in MCPS from the first year study, (2) highlighting those findings in light of the new reading/language arts curriculum, and 3) presenting a design for the second year of the reading study.

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1. Originally the study proposed to examine also the effect of factors such as principal leadership and school climate on reading instruction and its effectiveness. First year activities suggested, however, that this was an overly broad and ambitious plan. We have, therefore, focused the study on reading instruction and program implementation and will examine factors related to overall school effectiveness in a separate study.

HISTORY AND AN OVERVIEW OF IPR/LA

During the 1976-77 school year, the Montgomery County Public Schools (MCPS) began the development of a K-8 instructional program for teaching the English language arts (IPR/LA). Development emerged out of a systemwide commitment to develop comprehensive instructional systems in four major subject areas--mathematics, science, social studies, and the language arts--and to strengthen the teaching of basic skills. Goals of the IPR/LA development effort were to improve reading/listening comprehension instruction, to improve composition instruction, and to improve program consistency across grades, schools, and areas. IPR/LA was also intended to integrate the separate curricula for listening, speaking, reading, and writing into one cohesive reading/language arts system.[2] Its development was supported in part by a Title IV-C Grant from the Maryland State Department of Education.

The Program of Studies in English Language Arts K-8 is composed of two documents: Part I-Reading and Listening and Part II-Speaking and Writing. Each of these will be supported by Instructional Guides containing activities in six types of discourse: narration, exposition and persuasion, procedure, drama, and lyric.

THE NEED FOR EVALUATION

IPR/LA was first introduced on a pilot basis to 19 schools during the 1977/78 school year. At that time, information from questionnaires, informal feedback, and outside experts were collected to aid in the design and development tasks. Information designed to systematically judge the degree to which schools were actually using IPR/LA, and, once in use, its impact on reading instruction and student achievement was not gathered.

In January of 1980, the director of what was then the Department of Instructional Planning and Development made a formal request of DEA to design a program evaluation of IPR/LA, emphasizing the need to focus specific attention on program implementation.[3] During the 1980/81 school year, DEA began designing a preliminary study design of IPR/LA. This report summarizes the findings of that study and presents a design for future evaluation activities.

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2. Description of Instructional System Development in Reading/Language Arts, K-8, dated 12/16/77.

3. Memorandum from Gabriel A. Massaro, director of the Department of Instructional Planning and Development, to Steven Frankel, director of the Department of Educational Accountability, dated 1/8/80, subject: Minutes of CE-ADES Meeting, 1/4/80.

FINDINGS OF FIRST YEAR

A major emphasis during the first year was on refining questions regarding implementation and the factors influencing the process[4]. Student outcomes, were examined only indirectly and to a limited degree. A variety of issues suggested by both MCPS staff and the literature to influence implementation[5] were explored. These issues can be categorized roughly into the following four areas:

- o. The adequacy and timeliness of personnel supports for implementation, such as staff training and program planning
- o The availability and useability of curricular supports such as materials and instructional guides
- o The effect of the program on staff and their roles
- o The effect of the program on the school's reading instruction

In addition, some data also were gathered on the nature of reading instruction where IPR/LA was not being implemented. These data, although far from a full baseline assessment, are valuable in describing the context into which IPR/LA is being introduced and how instruction has taken place in its absence.

The data suggest that many questions regarding program implementation exist and that it is important to look very closely at how IPR/LA is being implemented. Specifically, the results of the first year showed:

- o The area of in-service training and planning for implementation are important for further study. Both principals experienced in the program and ones new to it felt that more time and attention should be devoted to this component.

- o There appears to be considerable variation in both the availability of and views about the useability of curricular supports to the program. While some principals and teachers found the core books, instructional guides, and tests to be valuable, others labeled them as difficult to use or felt they were or unsuitable for their (low achieving) students.

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4. In reviewing the findings, it is important to keep in mind that these data were gathered principally for study design purposes. That is, the goal of the first year was to refine the questions to be addressed and the methods to be used in addressing them. Further, because findings are based on small, self-selected samples of respondents, they should be interpreted with caution. The conclusions presented here are, therefore, preliminary and cannot be considered as formal answers to any of the questions examined.

5. Of special note here are the studies by Rand and the University of Texas Research and Development Center which point out the importance of staff involvement at all stages of introduction of a new program and the critical nature of the supports provided during the early stages of implementation.

o Teachers and media specialists both reported changes in their roles, emphasizing that IPR/LA -had increased the demands on their time and required them to assume added functions. To many respondents these changes were perceived as "added burdens." Some of these added burdens may be "start up" problems; some may represent a long-term change in demands.

o Many principals and teachers reported that IPR/LA had in fact changed their reading instruction in a variety of ways (i.e., instructional practices, emphases, materials, and evaluation). Generally, the changes were consistent with the goals of the program involving, for example, more emphasis on comprehension skills and the use of a wider variety of materials. Others, however, reported little change in their reading instruction. Some indicated that they were not using IPR/LA because it was too time consuming. In other schools, they felt it was inappropriate for their low achieving students.

o Reading instruction is currently characterized by a reliance on the basal reader programs. Since basal readers in and of themselves are not adequate for implementation, these findings suggest it may be difficult to convince some teachers to fully implement IPR/LA. Principals and staff may be very reluctant to give up reading programs with which they are satisfied and invest the time and energy required for the implementation of a new program.

REVISED DESIGN FOR THE SECOND YEAR OF THE READING STUDY

Based on the knowledge gained from the first year and previous research on factors affecting implementation (Berman and McLaughlin, 1978; Hall and George, undated), the design for the second year study of reading has been developed. The study will address the following major issues:

1. To what extent is the IPR/LA program currently being implemented in MCPS elementary schools?
2. What is the effect of IPR/LA on students' reading achievement and attitudes toward reading?
3. What are the characteristics of reading instruction and its effects on learning where IPR/LA is not fully implemented?

In examining these issues, the study will also:

1. Evaluate the effectiveness of implementation processes.
2. Evaluate the relationship between degree, or level of implementation and student outcomes, and
3. Examine the extent to which the program has been implemented for all students, low and high achieving, regular and special education, and whether when implemented, it meets the needs of all students.

PROGRAM IMPLEMENTATION

The examination of implementation will address the extent to which IPR/LA is being implemented, how that implementation is being supported, and what impact implementation of IPR/LA has on instruction and related education practices. Specifically, it will examine the extent to which

o   The managerial and personnel supports believed necessary for effective implementation have been provided in an adequate and timely manner

o   The appropriate curricular/support materials have been provided, and in such a way as to make them useable to the schools

o   IPR/LA, as implemented, has affected the role of staff, reading instruction, and related instructional practices and, in a related way, what the characteristics are of reading instruction where IPR/LA has not been fully implemented

PROGRAM IMPACT

The bottom line in introducing a new reading program such as IPR/LA is to improve students' reading performance and related skills. As stated earlier IPR/LA is expected to improve not only performance as measured by tests of reading skills but also attitudes and behavior:

The final questions to be addressed are therefore

o   The extent to which IPR/LA has had an impact on students reading performance, attitudes, and behaviors

o   Whether differences in program implementation are related to differences in outcomes? And what the effects are on reading performance, attitudes, and behaviors where IPR/LA is not being implemented

METHODOLOGY

The study will be conducted in a sample of 20 MCPS elementary schools, stratified on the basis of achievement level (using third grade test performance on the total CAT reading subtest) and length of time (years) the school has been exposed to IPR/LA. An attempt will also be made to balance selection of schools across the three administrative areas.

Data collection will involve school and area staff interviews and surveys, record reviews, classroom observations, parent surveys, and student testing. During the 1982-83 year, emphasis will be placed on describing instruction in Grades 1 and 4. In subsequent years the focus will shift to Grades 2 and 5, and then to Grades 3 and 6. Every attempt will be made to maximize the information acquired, while at the same time minimizing the burden on schools and staff.

EXPECTED OUTCOMES

The study will provide much needed information in several areas. The data on the implementation status of IPR/LA can be used to assist in modifying program design or enhancing, the supports and incentives provided to schools for program adoption. Because it is examining the implementation process, the study will develop instruments and procedures that can be used to monitor implementation in the future. The study will also produce important general information on the whole area of program implementation which will be of use in developing implementation plans for other curricular areas. Finally, the study will produce information on the status of reading instruction and the effectiveness of IPR/LA where implemented in improving reading skills.

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CHAPTER 1

THE STUDY OF ELEMENTARY READING INSTRUCTION

A. BACKGROUND

During the 1981/82 school year, Montgomery County Public Schools' (MCPS) Department of Educational Accountability (DEA) conducted a pilot study entitled "A Study of Elementary Reading Comprehension and Related Instruction in MCPS." During the first year, the study became known informally as "The Reading Study", and will be referred to as such throughout this document. The impetus for this study came from two major thrusts:

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B. HISTORY AND AN OVERVIEW OF IPR/LA

1. History

During the 1976-77 school year, the Montgomery County Public Schools (MCPS) began the development of a K-8 instructional program for teaching the English language arts (IPR/LA). Development emerged out of a systemwide commitment to develop, comprehensive instructional systems in four major subject areas--mathematics, science, social studies, and the language arts--and to strengthen the teaching of basic skills. Goals of the IPR/LA development effort were to improve reading/listening comprehension instruction, to improve composition instruction, and to improve program consistency across grades, schools, and areas. IPR/LA was also intended to integrate the separate curricula for listening, speaking, reading, and writing into one cohesive reading/language arts system. Its development was supported in part by a Title IV-C Grant from the Maryland State Department of Education.

The Program of Studies in English Language Arts K-8 is composed of two documents: Part I-Reading and Listening and Part II-Speaking and Writing. Each of these will be supported by Instructional Guides containing activities in six types of discourse: narration, exposition and persuasion, procedure, drama, and lyric. (Appendix A presents definitions of these six terms.) Program developers thought that, heretofore, narration has been overemphasized relative to other forms of discourse. The narration portion of the Reading and Listening area was developed first because of the greater availability of materials and staff familiarity with that kind of instruction.

The new program was to be developed over a period of five years, beginning in 1977/78. The Reading and Listening component of IPR/LA has been developed and piloted. During the 1977/78 school year, the narration portion of the Reading and Listening part of IPR/LA was piloted in fifteen elementary schools, two junior high schools, one special school, and one parochial school. This part of IPR/LA has gradually been expanded to more elementary and middle/junior high schools. During the 1982/83 school year, all except five elementary schools will be using the narration portion. In addition, during the 1982-83 school year, the exposition portion will be introduced to some schools. Since the second part of the program, the Speaking and Writing part, has not yet been approved or implemented, this document will make no attempt to describe it. A description of the first part of the program follows.

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2. Description of Instructional System Development in Reading/Language Arts, K-8, dated 12/16/77.

2. Overview of IPR/LA

According to the Program of Studies: English Language Arts K-8, the Reading and Listening Program is:

> ...based on sets of instructional and performance objectives for each grade level. Within each grade level set, the objectives are organized in major categories that represent important areas of instruction. The major categories are Prereading (K-1), Phonics-Decoding/Structural Analysis/ Sight Vocabulary (1-8), Language Experience (K-2), and Comprehension (K-8). Not all categories occur at each grade level. Grade 5, for example, includes only two categories: Structural Analysis and Comprehension.
>
> The objectives are organized in a developmental sequence. Each grade level set reflects language and cognitive competencies appropriate for instructional emphasis at that grade level. The objectives become progressively more complex by grade level so that students are constantly building on and extending previously acquired competencies. The developmental organization also permits students to move at their own rates through the K-8 program. The objectives are designed to meet the needs of students across a wide spectrum of abilities.[4]

The 1982 Program of Studies lists twelve specific outcomes for students.[5] (See Exhibit 1) A major change from earlier Programs of Studies (Exhibits 2 and 3) is the combination of Reading and Language Arts objectives, reflecting the integrated approach to instruction and the shift in emphasis from decoding to comprehension. The 1982 outcomes, particularly in comprehension, also differ in wording, specificity, and emphasis.

To achieve these objectives, IPR/LA includes changes in materials, the manner in which instruction is provided, and the measures for assessing student outcomes used by K-8 teachers. Exhibit 4 presents a list of features IPR/LA program developers feel should characterize reading/language arts instruction. Both the objectives and the characteristics of language instruction contained in the Program of Studies are Board-mandated and therefore officially prescribed throughout MCPS. How the new curriculum is implemented and what supports are used is not prescribed. IPR/LA, as a total program, includes a variety of support materials and recommendations for instructional strategies and approaches.

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3. Description, op. cit.
4. Program of Studies, English Language Arts K-8, Part 1: Reading and Listening. Rockville, Md.: Montgomery County Public Schools, 1982, p.3.

5. Ibid, p.2.

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EXHIBIT 1

Outcomes for English Language Arts K-8 Part I Reading and Listening

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1. Feel confident in their ability to make sense of discourse

2. Persist in trying to make sense of unfamiliar discourse

3. Use relevant background knowledge and experience to construct meaning

4. Use appropriate strategies for constructing meaning

5. Integrate information from various sources when constructing meaning

6. Increase time spent thinking about and discussing discourse

7. Increase understanding of different types and forms of discourse

8. Express understanding in a variety of productive activities

9. Produce discourse appropriate to a variety of purposes

10. Increase interest and participation in communicating through reading, writing, speaking, and listening

11. Increase time spent reading and writing

12. Increase amount of discourse read and written

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EXHIBIT 2
*Outcomes of Reading Program

General Objectives

1. Evaluate messages that come to them through printed symbols

2. Learn to understand the purposes, the view point, and the biases of an author

3. Learn to weigh for themselves the meaning of what they read

Specific Skills of Reading Program

1. Recognizing written words that represent common spoken words (sight vocabulary)

2. Relating alphabetic symbols to language sounds in context of words

3. Relating left-to-right letter patterns (written words) to corresponding word pattern

4. Using structural clues to word recognition

5. Recoding words of more than one syllable

6. Decoding abbreviations and measurement symbols

7. Using context

8. Using grammatical structure (syntactic clues to derive meaning)

9. Using typographical clues to meaning (spacing, capital letters, punctuation, type variations)

10. Reading orally to convey meaning

11. Associating words with objects or ideas they represent

12. Locating and/or recalling specific information

13. Translating a communication into a different form, different language, or different level of abstraction

14. Interpreting major ideas and relationships between ideas

15. Making predictions from data

16. Applying previously learned skills or generalizations to new situations and problems

17. Analyzing organizational patterns of a communication (picture, paragraph, chapter, book, story, poem, report, or article)

18. Synthesizing into a new form of expression ideas selected from communications

19. Evaluating communications

EXHIBIT 3

*Outcomes of English Language Arts Program

Students should:

1. Become aware of the values, skills, attitudes, understandings, and appreciations necessary to living effectively in a democratic society

2. Think clearly

3. Develop competence in the skills of oral and written communication

4. Exercise personal responsibility in the use of language

5. Read efficiently and effectively for a variety of purposes

6. Appreciate the literary heritage and the relation of literature to the other arts

7. Develop insight in interpreting human experience

8. Develop increasingly mature standards of personal enjoyment and aesthetic taste.

9. Understand the relationship of words to human behavior

10. Develop power in creative thought and expression

11. Make appropriate use of the mass modes of communication

12. Listen purposefully and courteously

13. Develop effective habits of work and study

14. Develop intellectual curiosity

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EXHIBIT 4

Characteristics of Language Instruction

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1. Reading and listening instruction should be integrated, whenever possible, with instruction in writing and speaking.

2. Language instruction should also be integrated, whenever possible, with instruction in content subjects and with other aesthetic arts.

3. Language instruction should encourage the use of relevant background knowledge and experience in reading, writing, speaking, and listening; establish purposes for reading, writing, speaking and listening; emphasizes whole discourse and the contexts in which it is understood or produced; and develops the active role of the language learner in constructing meaning.

4. Language instruction should encompass and be appropriate to a variety of types and forms of discourse at every grade level; literature for children and adolescence should be used for reading and listening instruction whenever appropriate; instruction should encourage the use of the media center as a sourse of books for independent reading.

5. Instruction should provide students with a rich variety of activities to develop the experience needed to use language effectively.

6. Questioning strategies should promote thought and discussion in small group an whole class settings.

7. Instruction in phonics-decoding helps students integrate clues to sound/letter relationships and word structure with semantic and syntactic clues in decoding unfamiliar words in context.

8. Instruction should focus as often as possible on related clusters of performance objectives rather than addressing objectives one at a time.

9. Instruction should not only teach students the basic skills of reading, writing, speaking, and listening, but should also develop students ability to use athese skills in critical thinking and study activities.

10. Instructional grouping should be flexible and should feature both heterogeneous and homogeneous whole-class and small-group instruction when appropriate.

11. Instruction should provide students with opportunities to demonstrate competence in a variety of tasks, activities, and situations over an appropriate period of time, both in class and as homework.

12. Evaluation of student competence should attend to the full range of student performance across a variety of assessment tasks, activities, and situations; assessment for instructional purposes should include student performance in classroom activities, on homework assignments, on informal classroom tests, on criterion-referenced tests; and on standardized tests.

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6. Program of Studies, op. cit., pp. 2-3.

Many of the characteristics listed in the revised curriculum clearly would be expected to be present without the new program. Some suggest, however, a change in emphasis. Most importantly, the new program in reading and listening is designed to emphasize whole discourse and to expose and familiarize students with "varieties of discourse, their functions, and their content (meaning)." It also places increased importance on the use of varied materials. Since instruction should differ depending upon the particular type of material used, it is expected that this increase in variety will lead to enriched instruction and the acquisition of a broader range of comprehension and related skills. Exhibit 5 shows the types of forms required for instruction in the reading and listening program.

Use of a variety of instructional materials is one of the characteristics that may distinguish between the basal reading programs that dominate reading instruction in most school systems and IPR/LA. While the new program does not intend that teachers will stop using basals, implementation would result in differences in how they are used. Basals would no longer be the center of the reading program, but only one of a variety of materials to be used in implementing the mandated curriculum.

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7. Overview of the Instructional Program in Reading and Language Arts: Reading and Listening. Rockville, Md.: Montgomery County Public Schools, 1981, p.9.

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EXHIBIT 5

REQUIRED FORMS FOR INSTRUCTION IN LISTENING AND READING K-8

■ Will receive instructional emphasis

☐ Will be included in reading/listening program

☐ May be included in reading/listening program when appropriate

NARRATIVE FORMS CHART

NARRATIVE PROSE	K	1	2	3	4	5	6	7	8
1 Experience Stories	■	■	■	☐					
2 Short Narratives	■	■	■	■	■	■	■		
3 Folk Tales	■	■	■	■	☐	☐	■	■	☐
4 Fables		☐	☐	☐	■		■		
5 Novels				☐	■	■	■	■	■
6 Biographies/Autobiographies				☐	■	☐	■	■	
7 Legends					☐	■	■	■	■
8 Myths						☐	■		■
9 Short Stories							☐	■	■

NARRATIVE VERSE	K	1	2	3	4	5	6	7	8
	■	■	■	■	■	■	■	■	■

EXPOSITORY AND PERSUASIVE FORMS CHART

EXPOSITION	K	1	2	3	4	5	6	7	8
1 Experience Reports	■	■	■	☐	☐	☐	☐	☐	☐
2 Introductory Exposition	☐	■	■						
3 Textbook Prose					■	■	■	■	■
4 Tradebook Prose					■	■	■	■	■
5 Reference Articles					☐	■	■	■	■
6 News Articles					☐	☐	☐	■	■
7 Feature Articles				☐	■	■	■	■	■

PERSUASION	K	1	2	3	4	5	6	7	8
1 Advertisements						■	☐	■	■ ☐
2 Reviews/Critiques								☐	■
3 Editorials						☐	☐	☐	☐ ■

PROCEDURAL FORMS CHART

PROCEDURE	K	1	2	3	4	5	6	7	8
1 Signs and Warnings	■	■				■			
2 Directions for Getting to a Location			■						■
3 Game Directions			■				■		
4 Science Investigations					■		■	■	
5 Test and Assignment Directions				■		■		■	
6 Recipes and Cooking Directions					■		■		
7 Construction and Assembly Directions					■				■
8 Directions for Filling out Forms							■	■	
9 Operating Directions								■	
10 First Aid Directions								■	
11 *Additional Essential Forms		☐	☐	☐	☐	☐	☐	☐	☐

*For a listing of these Additional Essential Forms refer to
Maryland Reading Scope and Sequence Grades 1-12 (MSDE 1977)

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C. THE NEED FOR EVALUATION

IPR/LA was first introduced on a pilot basis to 19 schools during the 1977/78 school year. At that time, information from questionnaires, informal feedback, and outside experts were collected to aid in the design and development tasks. Information designed to systematically judge the degree to which schools were actually using IPR/LA, and once in use, to determine its impact on reading instruction and student achievement was not gathered.

The questionnaire data collected by the IPR/LA program designers from the 19 original pilot schools during the first year pilot of IPR/LA summarize staff opinions about materials, in-service training, and changes in teacher and student performance of one year of pilot testing the IPR/LA reading/listening curriculum in narration.[8] While the findings from the survey were useful, no comparable data of this magnitude have been collected in more than two years. And, in addition, it is important to point out that these first year data were not collected for the purpose of judging the overall effectiveness of IPR/LA since it had not been fully developed or implemented.

Some MCPS schools are currently using IPR/LA's Criterion-Referenced Tests (CRT's), and a limited amount of test data is available on how some schools score across the six grades. However, the use of the CRT's is not uniform across all schools or even across pilot schools. Therefore, little of the data available from the CRT's can be used to make statements about how well IPR/LA is doing.

Program developers have recognized the need for evaluation,[9] and increasingly the need for more systematic program evaluation has been acknowledged. In late 1979 the coordinator of IPR/LA had two external consultants examine IPR/LA in order to make recommendations about how to evaluate IPR/LA. Each consultant agreed to the importance of evaluating the program and each especially highlighted the need to include in evaluation issues the degree to which schools implement the program. In January of 1980, the director of what was then the Department of Instructional Planning and Development made a formal request of DEA to design a program evaluation of IPR/LA, emphasizing the need to focus specific attention on program implementation.[10]

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8. See Report on Response to 1979 Pilot School Questionnaire on IPR/LA.
9. From its very inception, IPR/LA program designers planned for periodic evaluations of the program. In fact, in its original program design, program designers included an evaluation component. However, as time passed this particular unit's time and energies have been devoted to testing issues, and no systematic evaluation has been done to date. (Memorandum from Ted Schuder, Coordinator of Instructional System in Reading/Language Arts to IPR/LA Pilot School Principals, dated 10/11/79, subject: Report on Responses to the Pilot School Questionnaire on the IPR/LA.)
10. Memorandum from Gabriel A. Massaro, director of the Department of Instructional Planning and Development to Steven Frankel, director of the Department of Educational Accountability, dated 1/8/80, subject: Minutes of CE-ADES Meeting, 1/4/80.

During the 1980/81 school year, DEA began designing a preliminary study design of IPR/LA. In the fall of 1981, DEA began conducting a pilot study. The next section of this report briefly outlines the purpose behind the pilot year study, and its findings.

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CHAPTER II

FIRST YEAR RESULTS

A. PURPOSE OF THE FIRST YEAR STUDY

The purpose of the first year was to refine study questions and pilot test instruments and procedures in a limited sample of MCPS elementary schools.[11] The first year also served another important purpose: to judge the general feasibility of conducting the study as originally proposed.

Three types of formal data collection activities were conducted. These were staff interviews and questionnaires and classroom observations. Exhibit 6 presents a summary of how each was used and for which purposes. In addition, meetings were held with participating principals at the end of the first year, and although this was not a formal method of data collection, it provided extremely useful information on both the questions the study should address and how one could best examine them. During these meetings a working group discussed both the strengths and weaknesses of instruments piloted during 1981-82 and their feeling about IPR/LA and its implementation. The advice and comments of this group are also reflected in the discussion which follows.

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11. The 18 schools were: Belmont, Burtonsville, Cannon Road, Cedar Grove, Cloverly, Cold Spring, College Gardens, Fox Chapel, Garrett Park, Greenwood, Meadow Hall, North Chevy Chase, Parkwood, Poolesville, Rosemont, Viers Mill, Wood Acres, and Woodfield.

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EXHIBIT 6

Summary of Instruments and Procedures for the Pilot Year Study.

Interview/Survey Instruments	Purpose of Instrument	Respondents	Procedure/Schedule
Elementary School Principal Interview Guide	To gain a description of school's reading program	18 principals in pilot schools	Face to face interviews from November-January 81-82
Elementary Classroom Teacher Reading Interview	To gain a description of reading instructional program at classroom level	3 classroom teachers randomly selected to represent lower (grades 1-2) middle (grades 3-4) and upper (grades 5-6) where possible. Total N=54.	Face to face interviews from November-February
Elementary School-Based Reading Specialist Interview	To gain a description of the role of other professionals in the total reading program	21 reading specialists in pilot schools	Face to face interviews from November-February
Media Specialist Questionnaire	To gain a description of the role of other professionals in the total reading program	19 media specialists in pilot schools	Open-ended questionnaire distributed in March 82
Resource Room Teachers Questionnaire	To gain a description of the role of other professionals in the total reading program	24 resource room teachers in pilot schools	Open-ended questionnaire distributed in March 82

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EXHIBIT 6 (CONTINUED)

Summary of Instruments and Procedures for the Pilot Year Study.

Interview/Survey Instruments	Purpose of instrument	Respondents	Procedure/Schedule
Principal Questionnaire	To gain information about the Instructional Program in Reading and Language Arts (IPR/LA)	6 principals whose schools piloted IPR/LA prior to 1981	Questionnaire distributed in April 82
Teacher Questionnaire	To gain information about the Instructional Program in Reading and Language Arts (IPR/LA)	97 classroom teachers whose schools piloted IPR/LA prior to 1981	Questionnaire distributed in April 82

Observation Instruments

Observational Check-List for Target Students	To gather data on the task-attending behaviors of good and poor readers. To gather data on three aspects of reading instruction – 1) working with teacher versus working independently 2) the nature of the reading task 3) the materials used for instruction	One target student representing each reading group in the classroom (varied depending on number of instructional groups). Total N=33	Each target student was observed for one 10 minute period (every 30 seconds) for three consecutive days during one week of class-room observations conducted during the months of March-April
Student Conference (Word Accuracy Check and Inventory of Reading Attitudes)	To gather data on the appropriateness of the material for good and poor readers (to assess level of difficulty)	One target student representing each reading group in the classroom (varied depending on number of instructional groups (Total N=33)	Target students read to observers from materials used during reading instruction. Observers noted the number of unknown words encountered during oral reading of a passage of approximately 100 running words. Target student answered twenty questions dealing with reading attitudes.
	To gather data on reading attitudes of good and poor readers.		

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EXHIBIT 6 (CONTINUED)

Summary of Instruments and Procedures for the Pilot Year Study

Observation Instruments	Purpose of Instrument	Respondents	Procedure/Schedule
Daily Rating Scale for Field Observers	To gather data on facets of classroom climate, instructional program teacher presentation and teacher control of student behavior.	12 volunteer teachers in six schools	Teachers were rated daily at the conclusion of the the observation period. Observers reflected on classroom experience for that day only and on interactions among the teaching adults and the target students. (Each rating day was kept independent of other days.)
Classroom Description	To gather data on classroom practices and teaching behaviors in order to assess the degree of structure/ flexibility in the classroom.	12 volunteer teachers in six schools	Observers/classroom teachers completed instrument separately on last day of observation week.
	To gather data on teacher/ observer reliability		
Teacher Log of Daily Instructional Activities in Reading	To help researchers understand instruction observed during the reading periods. To gather data on four aspects of reading instruction for target students — 1) the instructional objectives 2) the content covered 3) the materials used 4) the time allocated for reading instructional group	12 volunteer teachers in six schools	Teachers completed log prior to each observational visit and submitted log to observers at the conclusion of his/her visit.

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B. FINDINGS OF FIRST YEAR

In this section, we present a brief summary of the results of the first year with regard to both the assessment of IPR/LA and reading instruction in general.[12] In reviewing the findings, it is important to keep in mind that these data were gathered principally for study design purposes. That is, the goal of the first year was to refine the questions to be addressed and the methods to be used in addressing them. Further, because findings are based on small, self-selected samples of respondents, they should be interpreted with caution. The conclusions presented here are, therefore, preliminary, and cannot be considered as formal answers to any of the questions examined.

1. The Implementation of IPR/LA

A major emphasis during the first year was on refining questions regarding implementation and the factors influencing the process. Various issues suggested by both MCPS staff and the literature to influence implementation[13] were explored. These issues can be categorized roughly into the following four areas:

o The adequacy and timeliness of managerial and personnel supports for implementation, including staff training and program planning
o The availability and useability of curricular supports, such as materials and instructional guides
o The effect of the program on staff and their roles
o The effect of the program on the school's reading instruction

In addition, some data also were gathered on the nature of reading instruction where IPR/LA was not being implemented. These data, although far from a full baseline assessment, are valuable in describing the context into which IPR/LA is being introduced and how instruction has taken place in its absence.

Managerial and Personnel Supports

The areas of in-service training and planning for implementation clearly emerged as important ones for further study. Principal interviews and questionnaires indicated that in-service training and program planning were seen as critical precursors of program implementation. Further, they strongly felt that more time and attention should be allocated to this component if IPR/LA is to be effectively implemented. This was true of principals experienced with the program as well as ones new to it.

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12. Since other variables examined during the pilot year will not be included in the revised design, we will summarize the pilot year results for them in a separate document.
13. Of special note here are the studies by Rand and the University of Texas Research and Development Center which point out the importance of staff involvement at all stages of introduction of a new program and the critical nature of the supports provided during the early stages of implementation.

Specifically, principals already in the program stated that they felt implementation would have gone far more smoothly ,if more in-service preparation had been provided. Principals - not on the system clearly agreed and even spelled out what might be considered 'a fairly comprehensive training/planning approach for their schools, including frequent in-service workshops, faculty meetings to problem solve and become acquainted with the IPR/LA materials, and visits to schools that are already successfully implementing the program.

The responses of teachers also reinforced 'the fact that the · area of training and planning needs to be looked at carefully. It was clear from their responses that support in this area varied considerably from school to school. Two rather unhappy teachers commented that "training was piecemeal to the disadvantage of teachers." Where it was more adequately provided, the program was seen as far more favorable. Those who reported more favorable training experiences cited the help of the reading specialists, workshops, and joint planning sessions as being especially useful to them in learning about the curriculum and how to implement it.
Further discussion indicated that this process was complicated by the fact that introduction of a new curriculum involves multiple groups, both central and area based, above the school level. For example, while staff responsible for development of the program are located in the central office, those principally responsible for overseeing the implementation are based at the area level.

Taken together the responses of principals and teachers support the need to examine further the areas of management, training, and planning for implementation. In addition, as the questions are generic to program implementation in a variety of curricular areas, such investigation will help not only to ·understand why IPR/LA is or is not being effectively implemented but also what needs to be done to effectively implement programs in other curricular areas.

The Availability and Useability of Curricular Supports

There appears to' be considerable variation in both the availability and useability of curricular supports to the program. By curricular supports, we mean the core books and other tradebooks intended to provide variety in reading materials, the instructional guides, and the tests. While some principals and teachers obviously found the materials both available and valuable, others complained because they were either unable to acquire them or found them unsuitable for their students. (This was especially true for low achieving students. This problem will be returned to in the discussion below.) "Money" also was cited as a generic problem. Further, one of the principals reported turning to the PTA for funds to purchase tradebooks and other support materials for the school since sufficient and timely resources were not being provided by the system. One must be very cautious in interpreting this finding, for we do not know how prevalent such a problem might be, whether the principal was seeking extra materials rather than basic materials, and whether or not some special circumstances might explain its occurrence. Program developers did note problems with support services that may also have affected materials availability.

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Other comments in this area addressed possible concerns with the manageability and clarity of the materials. Too little is currently known about the use of support materials to assess whether or not the criticisms offered are valid or of widespread concern. It is clear, however, that the area of curricular supports needs to be examined in the evaluation and the extent to which problems do or do not exist documented.

The Effect on Staff and Their Roles

It is expected that IPR/LA will change the roles of school staff and regular classroom teachers, as well as resource, media, and reading specialists. Interviews with teachers and specialists indicated that IPR/LA does appear to have at least some short-term impact on the roles of school personnel. Teachers reported that they were forced to reallocate their use of time. More time was needed for record-keeping, for testing, and for planning and organizing materials than had been spent previously. In addition, some teachers also reported that the time needed for reading instruction and its related activities took away from time spent in other subjects, such as social studies and science.

Media specialists also reported changes in their roles. Almost all of the media specialists surveyed felt that IPR/LA has impacted on their role in the school's reading program. The area in which the greatest impact was felt was in the procurement, processing, and circulation of materials used in IPR/LA. Other areas mentioned as receiving increased emphasis were the in-service training of teachers, teaching of instructional units, and planning instruction with teachers. Several media specialists felt these activities placed an unfair additional burden on them and that they should not be placed in the position of implementing them, especially the in-service training of other teachers.

While many of these role changes mentioned by teachers and media specialists, especially the increased burden in planning and categorizing, can be considered "start-up" problems which should diminish over time, some real changes in demands and assignments also may be found. The data obtained during the first year do not allow us to untangle these differential effects. At this point, we can only suggest that this is an important area for the second year of the study.

Finally, by way of contrast, the majority of resource room teachers indicated that IPR/LA had not changed their role in the school's reading program. This observation is, however, difficult to interpret, since the role of resource teachers was not examined to any great extent. A more in-depth inquiry into the impact of the program on resource teachers will be included in the second year of the study.

The Effect on Reading Instruction

Instruction and the effects on instruction of the implementation of IPR/LA were examined in some detail during the pilot year. The study looked at the effects of the program on philosophy of instruction, on the use of materials, on the instruction provided for students of different achievement levels, and on the use of the media center.

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The teachers were divided approximately evenly among those who indicated that IPR/LA had changed their philosophy, plan, or point of view for teaching reading and those that claimed that it had little impact. Those who did report a change taking place cited a number of areas in which changes consistent with IPR/LA had occurred. These include the following:

- o   Basal readers are supplemented with IPR/LA
- o   Novels are a more integral part of the program
- o   Various literary forms are now stressed more
- o · Sequence of skills taught has changed
- o   Overall emphasis on literature has increased
- o   Stories relate more to students' experiences
- o   Less emphasis is placed on phonics and spelling patterns
- o   More comprehension skills are now taught

Those who felt that IPR/LA had not affected their philosophy or plan for teaching reading either indicated that it simply reflected what they were already doing or else they weren't actually using the program, except in a peripheral way. While a number of explanations were offered for failing to use the program, a theme which consistently emerged was that changing to IPR/LA was too time consuming.

Teachers and principals both reported that they felt that IPR/LA provided them useful tools for meeting the needs of average and above average students. Most changes in instruction which were reported were referenced to students of these higher achievement levels. In other words, IPR/LA was seen as a useful enrichment program for students able to profit from the additional challenge. However, the majority of teachers and principals also reported that they did not believe the program was useful for lower achieving students or special education students, and that instruction provided to these pupils was impacted relatively little. Some of the reasons offered for this were the following:

- o   It takes too long for below grade level students to complete a story with the strategies suggested by the IPR/LA materials.
- o   The materials are too difficult.
- o   Poor readers have problems reading novels.
- o   IPR/LA is too vague.
- o   Tests are too hard.
- o   The units are too difficult.
- o   More structural analysis is needed.

Since it is clearly the intent that IPR/LA be used with all students regardless of achievement level, these reports raise some serious concerns. The IPR/LA revised curriculum is mandated for all students including low achievers. In fact, one of the goals of the program was to raise expectations about low-achieving students and change their instruction. Additional information needs to be gathered to ascertain problems with using the program for low achievers, and whether more assistance needs to be provided to teachers and principals in the use of these materials with lower achieving students.

Another area probed was the effect of the program on the use of the media center, especially the use of tradebooks. The media specialists were

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almost evenly divided on their opinions in this area, with seven reporting an increase in the use of the media center as a result of IPR/LA and six reporting no increase. It is clear, however, that this variable is related to other aspects of implementation and cannot be understood until more about overall program implementation in a school is known.

2. Reading Instruction in General

Data collected during the pilot year also provided the opportunity to describe the current status of reading instruction in the sample schools and to gain some preliminary insights into the degree to which existing practices and IPR/LA appear to match. Data were collected in the following areas: goals of the reading programs, types of reading programs, grouping practices, and record-keeping systems. The data present a mixed picture in terms of match between existing practices and IPR/LA. Overall, however, they suggest that current practices differs in some very important ways from the new program and that some serious adjustments will have to be made if IPR/LA is to implemented.

Goals of Instruction

The first area explored was that of the goals or expected outcomes of instruction. Not surprisingly, principals and teachers gave a variety of responses, most of which mirrored the Maryland State Reading goals and the MCPS Program of Studies. The greatest emphasis was placed on "improving comprehension skills." Currently stated goals are thus congruent with mandated IPR/LA objectives.

Types of Reading Programs

The second area explored was that of reading programs currently used in the schools. In this area considerable divergence was found between present practice and IPR/LA. The overwhelming majority of principals and teachers reported that a basal reader, or combination of basal readers, comprised the major part of the school/classroom reading program. This was true of both schools not on IPR/LA and some of the schools in which the program was already being implemented. The most popular basals were those produced by Ginn, Holt, and Houghton-Mifflin. Further, a little over half the respondents indicated that the basal reader was used equally in the upper and lower elementary grades. Where this was not the case, it was explained that other materials were used, such as novels and content reading, to provide a more enriched experience. Classroom observations conducted during the period set aside for reading instruction suggested, however, that very little use of tradebooks or novels was in evidence. The most prevalent activities involved use of workbooks or work sheets, followed by use of basal readers.

It is clear that the respondents generally seemed quite satisfied with basal programs, citing as strengths their structure, the supports provided in terms of guides, record-keeping procedures, tests, and the continuity afforded when a single system is used throughout the school. The satisfaction of most of the respondents with basal reading programs suggests that it may not be an easy task to convince staff to review their approach to basals and expend the effort to implement IPR/LA.

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Grouping Practices

Data collected on grouping practices currently used in the schools do not allow any ready conclusions regarding the degree to which current practice is or is not compatible with IPR/LA. Since IPR/LA is expected to have some impact on the flexibility of grouping and group size for instruction, a summary of what was found during the first year will be presented. Currently, in the majority of cases students are heterogeneously assigned to classrooms and then regrouped into three to four homogeneous groups for reading instruction. While most teachers state that the composition of these groups changes during the school year, it is unclear from our data how many students change or how frequently changes occur. Further, our data do not allow us to state with confidence the degree to which instruction is directed at these small reading groups, at the whole class, or at individual students. While the observational data suggest that students were working independently about half of the time and in teacher-directed small or large groups the other half of the time, the degree to which this is representative of current practice is not known.

Strategies for Teaching High and Low Achievers

Discussions with teachers and principals regarding differences in instruction for students of different ability levels were particularly interesting, and, it appears that current practices are characterized by greater distinctions in instructional strategies and materials than would be encouraged by IPR/LA. The differences in instruction were described in the following ways. Instruction for high achievers exhibits:

- o   More independent activities
- o   More high level questions
- o   More free time devoted to recreational reading
- o   More difficult materials
- o   More creative activities
- o   More content coverage
- o   More library research
- o   More conceptual activities
- o   More varied materials

Instruction for low achievers is characterized by:

- o   More time spent in direct instruction by teachers
- o   More time spent on skill development
- o   More emphasis on phonics and decoding skills
- o   More visual materials used
- o   More reinforcement activities (follow-up and drill)
- o   More tactile experiences
- o   More consumable items used
- o   More language experience activities
- o   More time spent on reading word lists and reading words in isolated sentences
- o   Less time spent on reading words in the context of whole stories
- o   Less time spent in group work because of shorter attention span

Examination of these descriptors suggests that current practice with regard to high achievers more closely matches IPR/LA than does practice with low achievers. This reinforces the finding reported earlier that using the program with lower achieving students posed problems for

principals and teachers. These preliminary findings suggest that implementation of IPR/LA with all students may require additional efforts.

Record-Keeping Systems

The majority of principals and teachers also reported that they currently use some sort of system for record-keeping. This may include skills checklists, assessment tests, and unit tests. Frequently, the systems used are ones which accompany the basal reading system used in the school, such as the materials produced by Ginn, Holt, and Houghton Mifflin. In some cases schools or teachers have produced their own systems, especially suited to their program. How the systems currently in use match or differ from the ones which are being developed to support IPR/LA is not known at this time. It is clear, however, that in most cases teachers already appear to be using materials intended to serve the same function as the supports to be provided by IPR/LA. Whether staff will want or need to switch to the IPR/LA materials is not known at this time.

Time on Task

Finally, classroom observations were conducted to determine the percentage of time that students were "on task" which is defined as attending to the task assigned by the teacher. These observations were conducted during the period specified by the teacher as "the reading period." Analyses revealed that almost three-fourths of the time students were in fact attending to the task assigned. About half of the time these tasks involved reading or phonics activities. The other half of the time students were observed to be engaged in reading-related activities, such as writing, speaking, listening, or doing tasks outside the realm of reading language arts. When students were observed to be "off task," for example, not attending to lesson or participating in a group discussion, the activity in which they were most frequently observed to be engaged was reading a basal story.

3. Effects of Programs on Reading and Related Skills

The pilot year activities did not include any specific tryouts of instruments for assessing the effects of IPR/LA on reading and reading related skills. Only insofar as principal and teacher interviews provided information on changes in student behaviors, use of the media center, etc., were any data gathered on impact: and, as might be expected, reports in this area were mixed.

Nonetheless, during the first year, alternative approaches for assessing impact were reviewed. These included norm-referenced standardized tests, criterion-referenced tests in reading (both commercially and locally produced), and surveys of staff, students, and parents. It was determined that initially it would be worthwhile to use a combination of these and to continue to refine procedures as the study progresses.

4. Study Methodology and Data Collection Instruments

The first year study indicated that most of the instruments used for

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examining IPR/LA were generally appropriate and on target.[14] Some
modification in wording of specific questions was suggested. Four major
-issues did emerge, however, which have influenced the design for the
study. These issues are discussed below.

The Use of Interviews vs. Questionnaires

During the first year information on reading instruction was gathered
both through face-to-face interviews and written questionnaires.
Principals strongly felt that the questionnaire format did not allow
sufficient flexibility for explaining answers or fully portraying the
reading program at their school. Since reading practices vary
considerably between schools, it was not judged feasible to develop an
adequate questionnaire that could be self-administered. Wherever
possible, therefore, interviews will be used instead of questionnaires.

Classroom Observations

During the first year, the plan for classroom observation called for
daily observation, spanning a one-week period. This amount of class-
room visitation was perceived as too intense by a number of teachers and
was felt to be a burden. The revised design calls for observation done on
a periodic basis.

Agreement To Participate

During the first year, staff in sample schools were told that their
participation in the study was totally voluntary. This resulted in a lack
of response to many of the instruments used that was damaging enough in
the first year but might totally ruin the study in subsequent years. In
order to assure that the data gathering effort will be more successful in
the coming year, we will request that participation of staff will be
mandatory. As long as this does not result in a lengthened workday for
participants and DEA provides coverage for classrooms, as needed, we feel
this requirement should not be overly objectionable.

Communication

Some confusion arose during the pilot year regarding what was expected of
participating schools and, even, in some cases, what the purpose was of
the pilot effort itself. The plan for the revised study calls for greater
attention to communications between study staff and participating schools
both during start-up and throughout the evaluation.

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14. This was not, however, the case with the instruments used to assess other
    areas related to overall effectiveness, such as school climate and
    expectations.

CHAPTER III

REVISED DESIGN FOR THE SECOND YEAR OF THE READING STUDY

A. OVERVIEW

Based on the knowledge gained from the first year and previous research on factors affecting implementation (Berman and McLaughlin, 1978; Hall and George, undated), the design for the second year study of reading has been developed. The study will address the following major issues:

1. To what extent is the IPR/LA program currently being implemented in MCPS elementary schools?
2. What is the effect of IPR/LA on students' reading achievement and attitudes toward reading?
3. What are the characteristics of reading instruction and its effects on learning where IPR/LA is not fully implemented?

In examining these issues, the study also will:

1. Evaluate the effectiveness of implementation processes.
2. Evaluate the relationship between degree or level of implementation and student outcomes.
3. Examine the extent to which the program has been implemented for all students, low, average, and high achieving, regular and special education, and whether, when implemented, it meets the needs of all students.

The study will be a longitudinal evaluation of the implementation of IPR/LA and reading/language arts instruction in a selected sample of schools. A variety of data collection techniques will be used including interviews, classroom observations, lesson logs, and student assessments in both reading skills and attitudes toward reading. Every attempt will be made to maximize the information acquired, while at the same time minimizing the burden on schools and staff.

The products of this study will be much needed information in several areas. The data on the implementation status of IPR/LA can be used to assist in modifying program design or enhancing the supports and incentives provided to schools for program adoption. Because it is examining the implementation process, the study will develop instruments and procedures that can be used to monitor implementation in the future. The study will also produce important general information on the whole area of program implementation, which will be of use in developing implementation plans for other curricular areas. Finally, the study will produce information on the status of reading instruction and the effectiveness of IPR/LA where implemented in improving reading skills.

Attachment 1 presents a matrix which provides in more detail the operationalization of these research questions and the data collection techniques to be used for each. The following sections of this chapter describe both these questions and the study methodology.

B. STUDY QUESTIONS

The study to be conducted over the next three years aims first at describing program implementation and second at measuring program impact. Further, it assumes that impact can be assessed validly only if implementation is first described and evaluated. That is, to measure the effect of change, one must first determine that change has actually taken place.[15] Finally, the study assumes that one must look not only at IPR/LA but also at the full range of instructional practices in reading which may concurrently exist. That is, despite the fact that schools have implemented IPR/LA objectives, it is likely that variation in instructional practices exist and that these variations also should be described and evaluated.

1. Program Implementation

The examination of implementation will address the extent to which IPR/LA is being implemented, how that implementation is being supported and what impact implementation of IPR/LA has on instruction and related education practices. Specifically, it will examine:

o   The managerial, personnel, and resource supports provided for implementation

o   The effects of IPR/LA on instruction and related educational practices

Managerial, Personnel, and Resource Supports

The literature on program implementation clearly states that program adoption must be carefully orchestrated. How implementation is approached and the supports that are provided are as important in determining whether or not change actually occurs as is the content or complexity of what it is that is to be implemented. How implementation is managed and supported by different levels in a system also are crucial to implementation success.

First year activities, especially discussions with principals and teachers regarding the implementation of IPR/LA, also reinforced the critical nature of the support system to the process of implementation and suggested that in-service training and staff involvement in planning were critical to successful program implementation in MCPS. Questions were raised concerning the adequacy of current efforts in this area both from schools new to the program and those involved for more years.

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15. While this may sound like an obvious statement with any other approach clearly "putting the cart before the horse," the history of program evaluation clearly documents that this is not the case. Further, principals and teachers in MCPS have raised concerns regarding the possibility that the evaluation might seek to assess impact before sufficient time for implementation had been allowed.

Both the literature and first-year activities, then, suggest that the following are critical factors to be examined: the way in which implementation has been managed and monitored by different levels in the system (central office, area offices, and schools), the degree of administrative support and priority given to implementation, the content and focus of in-service training, and staff involvement in planning.

In examining implementation, therefore, a major question will be the extent to which the personnel supports believed necessary for effective implementation have been provided in an adequate and timely manner.

In addition, the data clearly suggested that supports for the mandated curriculum were uneven and in some cases inadequate. IPR/LA calls for changes in materials use, includes specially selected "core books," and adds some critical new tools for assessing and recording student progress. To help explain the program to staff and aid in lesson plans, instructional guides have been developed.

First year activities clearly indicate that to date provision of support materials has not been totally successful. Necessary materials have not always been provided to teachers. Why this is so is not entirely clear, but the inadequacy of funds available to schools has been cited as at least one reason for this lack. Program developers have also noted problems with support services such as Supply and Property Management, and Print Shop. The variations found in materials availability indicate that it is important to examine the availability of materials produced to support the program, whether these materials are critical to implementation, and whether they are used when available.

A second critical question in assessing implementation is, therefore, the extent to which the appropriate curricular/support materials have been provided and provided in such a way as to make them useable to the schools.

Effects on the Instructional Process

The basic emphasis of IPR/LA is to provide a more effective way of teaching reading to all students. It is intended to impact on the way in which reading is taught, specifically on grouping practices, discussion strategies, time spent on various reading activities, materials use, and assessment techniques. Further, it is intended not as a supplemental program - somehow wrapped around a preexisting basal reading program but one that uses basals as one component of a broader approach. It is intended for students of all achievement levels, special as well as regular education students.

Finally, it is a program that may require some changes in the roles of staff and the use of resources. Specifically, the role of the media specialist and media center are expected to change and become both more central to and integrated with the basic instructional process.

First year activities raised many questions as to the effect of IPR/LA on staff roles and the instructional process. While some of the instructional practices encouraged by IPR/LA are already in place and do

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not require any changes, other practices did not appear to be common, suggesting that considerable change will have to occur if IPR/LA is to be fully implemented. Of special importance was the finding that students spent little time reading tradebooks and other materials suggested by IPR/LA as central. The most frequently used single material was work books or worksheets, an unlikely tool for "reading whole discourse."

Further, variation was clearly found in the degree to which IPR/LA had been adopted as the reading program in the school. And, some principals clearly stated that they preferred to use it as a supplemental literature program. Finally, considerable concern was raised regarding the appropriateness of the program for lower achieving students. Consistently, staff in the first year of the study expressed the feeling that neither the suggested strategies and activities nor the materials were appropriate for low achievers or special education students.

Additional major questions to be addressed are, therefore, the extent to which IPR/LA, as implemented, has affected the role of staff, reading instruction and related instructional practices and, in a related way, what the characteristics are of reading instruction where IPR/LA has not been fully implemented?

2. Program Impact

The bottom line in introducing a new instructional program such as IPR/LA is to improve students' reading performance and related skills. As stated in the Program of Studies (p. 6), IPR/LA is expected to improve not only performance as measured by tests of reading achievement but also to affect the following areas:

o Confidence in one's ability to understand discourse
o Persistence in trying to make sense of unfamiliar discourse
o Use of relevant background knowledge and experience to construct meaning
o Use of appropriate strategies for constructing meaning
o Integration of information from various sources when constructing meaning
o Increase in time spent thinking about and discussing discourse
o Increase in understanding of different types and forms of discourse
o Ability to express understanding in a variety of productive purposes
o Ability to produce discourse appropriate to a variety of purposes
o Increased interest and participation in communicating through reading, writing, speaking, and listening
o Increased time spent in reading and writing
o Increased amount of discourse read and written

Clearly, it is not possible to address some of the above directly; and since first year activities focused on implementation rather than assessment of impact, we do not have any clear indicators of the success with which they can be measured indirectly. Nonetheless the study will attempt to take as broad a look as possible at program impact, including not only performance on tests of reading skills but also, to the extent possible, the use of reading skills and attitudes toward reading; and it will do so in part by comparing outcomes in schools in which IPR/LA is in varying stages of implementation.

The final questions to be addressed are, therefore, the extent to which IPR/LA, as implemented, has had an impact on students' reading performance, attitudes, and behaviors and whether differences in program implementation are related to differences in outcomes? What are the effects on reading performance, attitudes, and behaviors where IPR/LA is not being implemented?

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students in the classrooms selected in 1982-83 through the remaining two years of the study.

2. Data Collection

Based on the experiences of the pilot year and review of related studies, a plan for data collection has been developed which incorporates a variety of approaches and techniques. The design matrix presented as Attachment 1 shows how each will be used to address the evaluation questions discussed earlier.

Program Implementation

To obtain data on program implementation, selected area staff, principals, and first and fourth grade teachers in the sample classrooms will be interviewed regarding both their plans for implementing IPR/LA and actual use of IPR/LA occurring on the school and classroom levels. We have decided to use the interview rather than the questionnaire approach for these key informants because feedback from pilot year participants indicated a strong preference for the interview approach. The pilot year activities suggested that interviews should be conducted at two points during the school year: the fall and spring. The fall interview will be the lengthier of the two, [17] lasting approximately an hour to an hour and one-half for principals, and 45 minutes for other staff, as it will be used to gather considerable data about the school's reading instruction and its approach to implementation of IPR/LA. The spring interview, lasting no more than half an hour, will provide follow-up on selected items. Additional data on implementation will, however, be obtained through a broader, less extensive, questionnaire to be filled out by all relevant classroom teaching staff in all grades. Separate instruments also will be developed to survey resource room, media specialists, special education teachers, and reading specialists on their role in implementation. These surveys will be conducted at midyear.

In addition, observations of instruction in the first and fourth grades also will be conducted to gather classroom data on what is occurring during the reading period, what is being taught, the instructional strategies, and the materials being used. The observations will take place across a four week period at each of three time points in fall, winter, and spring. One of the two sample classrooms from each grade level will be observed, using a snap shot approach. That is, during each observation period three visits of approximately 15 minutes' duration will be made to each classroom during the reading period to obtain a quick picture of instruction. These observations will focus on selected students, of different achievement levels, and describe certain aspects of the instruction they received. In the second classroom at each grade level one, more in-depth, observation will be conducted during each of the three periods. It is anticipated that the observation will cover the duration of an entire reading period and will vary in length accordingly.

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17. It is anticipated that in study years 3 and 4 this interview can also be shortened.

C. METHODOLOGY

1. Sample

Schools

The study will be conducted in a sample of 20 MCPS elementary schools,
stratified on the basis of achievement level (using 3rd grade test
performance on the total CAT reading subtest) and length of time (years)
the school has been exposed to IPR/LA. An attempt also was made to
balance selection of schools across the three administrative areas. In
addition, at least one school will be included which has a self contained
special education class. Five schools in the county will not enter the
program until the Fall, 1983. It would be inappropriate to include any of
these schools in the basic study, given the focus on implementation
efforts in the data to be collected. However, these schools could provide
useful baseline information on instructional practices where IPR/LA is not
being implemented. Two of these schools, therefore, have been selected
for a more limited, separate data collection effort. Principals and
first- and fourth-grade classroom teachers will be interviewed once during
the school year about the basic characteristics of their instructional
practices in reading. At that time, observational data on these
classrooms will also be collected using the same procedures as those
described below for the main study. This should provide us with useful
pre-implementation data. (A tentative sample of schools is presented in
Attachment 2).

Additional school characteristics which will be taken into account but
not used for sampling purposes include:

- o   Size
- o   Urban/rural location
- o   Percentage and distribution of minority students' mobility
- o   Background/experience of staff
- o   Basal reading system use; if applicable
- o   Other curricula or programs present

It is important to note that schools selected for study inclusion will be
followed across the remaining three years of the study.

Classrooms

While all teachers in the sample schools will be included in some parts
of the study, a smaller sample also will be used for selected activities.
Specifically, during the 1982-83 school year two classrooms in each of the
18 schools will be randomly selected for in-depth study from Grades 1 and
4, with data collection varying slightly between the members of each
pair. In succeeding years, Grades 2 and 5 and then 4 and 6 will be
studied.[16] This approach provides, we feel, for enhancing the breadth
of information gathered without overburdening individual teachers. In
this way, the study will also be able to follow the first and fourth grade

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16. In Year 3, second and fifth grade teachers will be interviewed and in
Year 4, third and sixth grade teachers will be interviewed.

These observations will focus on the teacher and what he/she does during the reading period. In addition, teachers whose classrooms are observed in either manner will be asked to keep activity logs during these periods in order to better place the activity observed in the context of instruction.

Program Impact

As indicated earlier, first year activities focused on issues related to implementation and addressed the issue of impact only to a very limited degree. Based on a review of the literature and discussions with staff we feel, however, that an approach combining the use of standardized tests (norm- and criterion-referenced) and staff, student, and parent interviews is recommended for the next three years.

It is proposed that student reading skills be measured through a combination of techniques designed to examine both general and specific reading skills. First, to measure the extent to which the new objectives in reading are being achieved, data will be collected from the criterion-referenced tests which were developed for IPR/LA. The tests are administered in Grades 2-6 in September and Grades 1-6 in February.[18] Second, to assess general level of student functioning, a global measure of reading performance will be administered early in the school year. For fourth graders, the reading subtests of the California Achievement Tests will be administered at the same time as third and fifth grade testing occurs in the 18 schools. For first graders, an individually administered reading test, the Woodcock Reading Mastery Test (three subtests: Word Identification, Word Comprehension, and Passage Comprehension) was recommended by DAS as the most appropriate instrument to use. This will be administered in October.

We will also continue to explore the development of a more comprehensive criterion-referenced test battery that might be used to supplement the tests provided by the IPR/LA program. If a satisfactory battery is found or developed, it might be used to totally replace the California Tests in those grades in which the CAT is not mandatory.

In addition, students will be surveyed regarding their attitudes toward reading at the same time as the CRT's are administered. This survey will examine factors, such as what students like to read, how much time they spend reading outside of school, and how they feel about themselves as readers. An instrument used during the pilot year is currently being examined to determine its appropriateness for inclusion in the revised study.

Finally, teachers, specialists, and parents will be interviewed regarding their perceptions of program impact. These interviews will, to the extent possible, address attitudes toward use of reading resources in school and

18. Testing of first grade students in the fall is optional in IPR/LA. First and fourth grade classrooms in the sample will be asked to administer these tests, if they are not already being used. For other grades, data will be collected where available.

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outside of school, extent of independent reading, type of discourse selected for reading, and attitudes toward reading. It is anticipated that these measures will be administered at the end of the school year, with the staff component being combined with the previously described instrument addressing program implementation. These instruments will be developed during the fall of 1982.

3. Data Analysis

The data will be analyzed using both quantitative and qualitative methods. The combination of approaches is important, we feel, to describe adequately reading instruction and its effects and to present reasons why change may or may not be occurring. Further, because it is expected that there will be considerable variation across schools in the specific details of both implementation and instructional practices, it seems appropriate to supplement basic descriptive statistics with case study analyses.

The study will rely, therefore, mainly on descriptive statistics combined with the case study approach. Frequency distributions, chi-square analysis, and some regression analyses will be employed to explore the majority of data and examine where differences occur. Post-stratification on degree of implementation should be a major focus of the analysis, although the stratifying variables used in sampling—school achievement level and length of time the school has been exposed to IPR/LA—will also be considered in the analysis.

The analysis of the effects of the program on student performance on norm- and criterion-referenced tests will employ classical test analysis procedures and possibly RASCH scaling techniques. The latter may prove especially useful in revealing differences in specific skill acquisition as a function of program differences.

Within schools, we will be able to use the achievement data collected for the study to post-stratify students on achievement level. The "snapshot" classroom observation data will allow us to examine the relationship between different instructional strategies and performance for different groups of students. By following students over the three years, we should be able to examine how the level of implementation is related to student acquisition of reading skills. To the extent possible, we will also make use of criterion-referenced test data collected systemwide to expand the analysis of program effects on student performance.

The exact number and content of the case studies cannot, at this time, be fully specified. It is expected, however, that they will address issues related to the process of implementation and its impact in schools where approaches to program adoption have differed and where student needs and/or previous approaches to reading vary.

Yearly reports will be produced presenting information on study progress and findings to date with a final report at the end of the three years.

D. SCHEDULE OF TASKS FOR THE 1982-83 SCHOOL YEAR

Task	Dates
1. Identify Schools and Make Initial Contacts	September Through Oct.
2. Meet with Staff	October (February for nonimplementing schools)
3. Test Students and Administer Attitude Survey	
Grade (1) 2-6 criterion-referenced tests,	October, February
Grade 1 Woodcock Reading Mastery Test	October
Grade 4 California Achievement Tests	October - November (same time as Accountability testing)
Attitude Survey	October, May
4. Interview Area Personnel	November
5. Interview Principals	October, May (February for non-implementing schools)
6. Interview First and Fourth Grade Teachers	November, May (February for non-implementing schools)
7. Survey Other Teachers and Specialists	January
8. Observe Classrooms	November, February, May
9. Interview Parents	May
10. First Year Progress Report	September

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APPENDIX A
Definition of Types of Discourse

Types of Discourse

1. __Narration.__ An account of an event or series of events that form a plot and involve characters in a setting over a period of time. Characteristic forms include short stories, novels, folk tales, fables, myths, legends, biographies, autobiographies, diaries, journals, ballads, and story poems.

2. __Exposition.__ A structured set of ideas and information about a topic, often with generalizations and supporting details. Characteristic forms include reference articles, news articles, feature articles, textbooks, and expository tradebooks.

3. __Persuasion.__ A set of statements expressing opinion about a topic or product, often with supporting information intended to convince or persuade the reader/listener. Characteristic forms include advertisement, editorials, reviews, and critiques.

4. __Procedure.__ A set of directions that indicate the proper sequence of steps in making or doing something. Characteristic forms include recipes, game directions, signs, and warnings. Also included are directions for travel, first aid, information forms, science investigations, tests, and assignments.

5. __Drama.__ An event or series of events expressed through the dialogue and movement of characters portrayed by actors. Characteristic forms include plays, skits, and musicals.

6. __Lyric.__ An expression of an author's feelings or perceptions about the nature of things, often using figurative language and imagery for effect. Characteristic forms include lyric poems and songs.

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RESEARCH QUESTIONS AND DATA COLLECTION PROCEDURES FOR THE STUDY OF ELEMENTARY READING INSTRUCTION

QUESTION 1:   HOW WELL IS THE IPR/LA BEING IMPLEMENTED?

ISSUE	RESPONDENT	PROCEDURES
1. Are appropriate managerial and personnel supports available for program implementation?	Area supervisors of elementary instruction	Interviews with principals and teachers in Grades 1 and 4 in fall and spring
	Area teacher specialists	
	School principals, teachers	
a. What has been the role of central office, area offices, and schools in managing implementation?	and specialists	Survey of resource, reading, and media specialists - winter
o What guidance has been provided on the implementation process by central office staff?		Interview of area supervisor and teacher specialist - fall
o What procedures have been developed by area staff to monitor implementation?		Survey of teachers in Grades 2, 3 ,5, and 6 - winter
o What is the degree of administrative support and priority given by areas and principals to implementation?		
b. Has adequate planning for program implementation occurred?		
o Does the school have a clear plan for implementation of IPR/LA?		
o Do school staff understand the plan and the goals for the 1982-83 school year?		
o Do staff understand the degree to which IPR/LA matches their previous philosophy or plan for instruction?		
o Who was involved in developing this plan at the school and area levels?		
o What supports have been provided by the area and central offices for program planning?		

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RESEARCH QUESTIONS AND DATA COLLECTION PROCEDURES FOR THE STUDY OF ELEMENTARY READING INSTRUCTION

QUESTION 1: HOW WELL IS THE IPR/LA BEING IMPLEMENTED? (CONTINUED)

ISSUE	RESPONDENT	PROCEDURES
c. Are sufficient in-service training and staff development being provided?		
o How much training has been planned/provided and in which areas?		
o When has training been provided?		
o Who has provided the resources for this training?		
o Who determined the content of the training?		
o What has been the role of the area and central office staff?		
o How does the content of this training match the school's implementation plan?		
2. Are sufficient curricular resources/ support materials available?	School principals, teachers, and specialists	As described above, surveys and interviews
a. Are the core books available to teachers? Are additional tradebooks available?		
b. Are the criterion referenced and novel tests available?	Area supervisors of elementary instruction	
c. Are the forms charts available?		
d. Are the instructional guides available?		
e. Are observational checklists available?		
f. Have these supports been provided in a timely manner?		
g. Have they been provided through MCPS resources?		

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RESEARCH QUESTIONS AND DATA COLLECTION PROCEDURES FOR THE STUDY OF ELEMENTARY READING INSTRUCTION

QUESTION 2: WHAT ARE THE EFFECTS IPR/LA IMPLEMENTATION ON READING INSTRUCTION?

ISSUE	RESPONDENT	PROCEDURES
1. To what extent does reading instruction evidence use of IPR/LA?	School principals, teachers, resource, reading, and media specialists	As described above for interviews and surveys
a. Are the special materials/support being used?	Classroom observations	Snapshot and in-depth observations of instruction in Grades
o Are the core books being used?		1 and 4 - fall, winter, spring
o How much time is spent on alternative types of reading materials-tradebooks, basal readers, newspapers, drama, workbooks?		
o Are the criterion referenced tests being used?		Winter, spring
o Are the forms charts being used?		
o Are the observational checklists used?		
b. What is emphasized instructionally and how do instructional emphases differ with varying years of experience with IPR/LA?		Teacher logs of instruction and materials kept during periods of observation,
o How much time are students given to read?		
o How much time do students spend reading in context?		
o How much time is spent on comprehension skills?		
o To what extent is discussion utilized?		
o Are students' knowledge and background experiences used?		

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RESEARCH QUESTIONS AND DATA COLLECTION PROCEDURES FOR THE STUDY OF ELEMENTARY READING INSTRUCTION

QUESTION 2: WHAT ARE THE EFFECTS IPR/LA IMPLEMENTATION ON READING INSTRUCTION? (CONTINUED)

ISSUE	RESPONDENT	PROCEDURES
o How much time is spent working in groups? Individually? o How much time do students spend in teacher directed instruction? o Are the language arts (reading, listening, writing and speaking) integrated for instruction? o Is there a variety of forms of discourse used?		
2. To what extent has IPR/LA changed the roles of teachers, media, reading and resource specialists. a. What changes have occurred in the allocation of time for reading instruction and related activities b. What changes have occurred in functions performed? c. What changes have occurred in other curricular areas d. Do the changes appear to be transitory or long term? e. Do the changes place a reasonable burden on personnel?	School/principals, teachers, resource, reading, and media specialist	As described above for surveys and interviews

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RESEARCH QUESTIONS AND DATA COLLECTION PROCEDURES FOR THE STUDY OF ELEMENTARY READING INSTRUCTION

QUESTION 3: WHAT ARE THE CHARACTERISTICS OF READING INSTRUCTION WHERE IPR/LA IS NOT BEING IMPLEMENTED?

ISSUE	RESPONDENT	PROCEDURES
1. What are the characteristics of instruction?	School principals, teachers, reading, resource, and media specialists	As described above for interviews, surveys, observations, and logs
a. What kinds and variety of materials are used?		
o To what extent are basal readers supplemented by other materials such as novels, drama, newspapers, etc.?	Classroom observations	
o Are criterion referenced tests being used?		
o Are checklists or other record-keeping materials used?		
o How much time is spent on alternative-types of reading materials?		
b. What is emphasized instructionally?		
o How much time are students given to read?	Classroom observations	
o How much time do students spend reading in context?		
o How much time is spent on comprehension skills?		
o To what extent is discussion utilized?		
o Are students' knowledge and background experiences used?		
o How much time is spent working in groups? Individually?		
o How much time do students spend in teacher-directed instruction?		
o Are the language arts (reading, listening, writing, and speaking) integrated for instruction?		

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RESEARCH QUESTIONS AND DATA COLLECTION PROCEDURES FOR THE STUDY OF ELEMENTARY READING INSTRUCTION

QUESTION 3:   WHAT ARE THE CHARACTERISTICS OF READING INSTRUCTION WHERE IPR/LA IS NOT BEING IMPLEMENTED? (CONTINUED)

ISSUE	RESPONDENT	PROCEDURES
o Is there a variety of forms of discourse used?		

2.   What are the roles of the media and reading specialists?
   a.   What functions are formed by the media specialist? What part does he/she play in the instruction process?
   b.   What is the role of the reading specialist? To want extent does he/she serve as a resource to the classroom teacher, as opposed to providing direct instruction to students?

3.   How is instruction provided to students of differing achievement levels?
   a.   Are the same types and variety of materials used?
   b.   Are the same teaching strategies employed?
   c.   Are the testing procedures similar?
   d.   What differences occur in the allocation of time to various tasks?

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RESEARCH QUESTIONS AND DATA COLLECTION PROCEDURES FOR THE STUDY OF ELEMENTARY READING INSTRUCTION

QUESTION 4: WHAT IS THE IMPACT OF THE IPR/LA ON STUDENT BEHAVIOR AND LEARNING?

ISSUE	RESPONDENT	PROCEDURES

1. To what extent does participation in IPR/LA affect student test performance?
  o Does student performance on criterion referenced-tests increase?
  o Does student performance on standardized tests increase?
	Student test data	Grade 1 oral reading test - fall Grade 4 California Achievement Tests in Reading - fall IPR/LA Criterion-Referenced Tests, Grades 1-6-fall* and winter

2. To what extent does IPR/LA result in changes in students reading behaviors and use of resources?
 	
  o Do students use the media center more?
  o Do students read more outside of school?
  o Do students seek out a greater variety of materials?
	School principals, reading, media specialists, teachers, parents and students	As described above for interviews and questionnaires
		
		Parent and student surveys - spring

3. What is the effect of IPR/LA on students attitudes toward reading?	Student	Attitude Survey - spring

*According to IPR/LA program designers the administration of criterion-referenced tests to first graders in the fall is optional.

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RESEARCH QUESTIONS AND DATA COLLECTION PROCEDURES FOR THE STUDY OF ELEMENTARY READING INSTRUCTION

QUESTION 5: WHAT IS THE IMPACT OF READING INSTRUCTION ON STUDENT BEHAVIOR AND LEARNING WHERE IPR/LA IS NOT BEING IMPLEMENTED?

ISSUE	RESPONDENT	PROCEDURES
1. What is the impact on test performance?	Student test data	As described above for assessing the impact of IPR/LA on student behavior and learning
2. What is the effect of reading instruction on student behaviors and use of resources? o What use do students make of the media center? o What use do students make of resources external to the school, such as the library? o To what extent do students use of a variety of materials?	School principals, reading and media specialists, teachers, parents, and students	
3. What are students attitudes toward reading?	Student	

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ATTACHMENT 2

Sample Schools for the Reading Study

Years Implementing Curriculum	Achievement Level		
	Below County Mean	Above County Mean	Total
Since 1981-82	Broad Acres Maryvale Rolling Terrace	Potomac Fallsmead Sherwood	6
From 1980-present	Beall Fields Road Viers Mill	Seven Locks Cedar Grove Greenwood	6
Prior to 1980	Poolesville Clarksburg Glenallan	Bannockburn Laytonsville Kemp Mill	6
Nonimplementing Schools		Bethesda Farmland	2
Total	9	11	20

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