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An Investigation Into the Behaviors of Classroom Teachers During Scheduled Reading Instructional Periods

Judy Weseman Moser
University of Northern Iowa

AN INVESTIGATION INTO THE BEHAVIORS OF CLASSROOM TEACHERS DURING SCHEDULED READING INSTRUCTIONAL PERIODS

An Abstract of a Thesis

Submitted

In Partial Fulfillment

of the Requirements for the Degree

Specialist in Education

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ABSTRACT

The specific purposes of this study were to identify and describe the frequency of teacher behaviors that occur during classroom reading instruction. The following problematic questions were addressed: (1) How much time is scheduled for formal reading instruction; (2) What proportion of teacher behavior during scheduled reading instructional periods is concerned with actual instruction in reading; (3) What proportion of teacher behavior during scheduled reading instructional periods is concerned with non-instructional activities; (4) What proportions of teacher behaviors during scheduled reading instructional periods are concerned with each of the major reading skill areas; (5) What proportions of teacher behaviors during actual reading instruction are concerned with each of the major reading skill areas; and, (6) Within each major reading category, what types of skills are emphasized.

Seven fourth grade teachers from five rural schools in northeast Iowa participated in the study. Each teacher was interviewed once to obtain preliminary information such as the amount of time scheduled for reading instruction, number of students, number of groups, and materials used. Each classroom was observed a total of seven times for the entire scheduled reading instructional period. The Teacher Observation Instrument, designed specifically for this study, was used to record the frequency of specified teacher behaviors occurring during one-minute intervals.

Additional anecdotal records were noted to supplement and/or clarify observations. As an example, teacher behaviors that were not on the observational record were noted in anecdotal form.

Results revealed that the time scheduled for formal reading instruction ranged from 60 to 85 minutes per day, or approximately 20 percent of the school day. The data further suggested that 62 percent of the teacher behaviors observed were concerned with actual instruction in reading, while 38 percent were concerned with non-instructional activities.

Descriptive information identifying the proportions of teacher behaviors concerned with major reading skill areas suggested that reading comprehension, oral reading, and word meaning were the categories accounting for the greatest proportions of teacher behaviors for the group as well as for all but two individuals. The categories of phonics, listening, listens, and demonstration were observed rarely, or in some instances, not at all. No consistent pattern among individual teachers emerged for the categories of structural analysis, reads aloud, discussion, word instruction, tests, and other. All were observed, but with irregular frequency and/or inconsistent patterns across individuals.

Analysis of the proportion of teacher behaviors concerned with each of the subskills in the major reading categories revealed that application was the most frequently observed subskill in all categories except oral reading, in which listens to accounted for

the greatest proportion. Some minor variability among teachers was noted.

A review of the anecdotal records revealed that most of the notes centered on clarifying non-instructional activities. In addition to the behaviors included on the observation instrument, other non-instructional activities noted included: checking student papers, filing student papers, reading through text manuals, writing lesson plans, and organizing worksheets.

Data analyses suggested the following conclusions: (1) The time scheduled for reading instruction was consistent across teachers when considered as a proportion of the total school day; (2) Approximately 60 percent of teacher behaviors were concerned with actual instruction in reading, while over 30 percent were concerned with non-instructional activities; (3) Comprehension, oral reading, and word meaning accounted for the greatest proportions of teacher behaviors for major skill areas; (4) Comprehension activities consisted mainly of questioning students over material read; and (5) During actual instructional time, the majority of teacher behaviors were concerned with having students apply skills that they already have.

Implications for further research included: (1) expanding the same type of study to include all grade levels so that a clearer picture of what is "normal" for each grade level may be determined; and (2) determining what individual and groups of children are doing during instructional time as well as non-instructional time. It is

only after descriptive studies have revealed a clear picture of current practices in reading, that process-product studies can be undertaken to determine whether the specific teacher behaviors identified are associated with variance in student achievement.

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This Study by: Judy Weseman Moser

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has been approved as meeting the thesis requirement for the Degree of Specialist in Education

4/12/82 — Donald W. Schmits
Date — Co-Chairman, Thesis Committee

4/12/82 — Catherine W. Hatcher
Date — Co-Chairman, Thesis Committee

4/12/82 — Ned Ratekin
Date — Member, Thesis Committee

5/7/82 — John C. Downey
Date — Dean of the Graduate College

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER 1

THE PROBLEM

Introduction

One of the major concerns in education today has been the reading achievement problems of school-age children. Special remedial classes have increased significantly in number over the past ten years. Concern over decline in national reading test scores has been publicized in newspapers, popular magazines, and on television. Library and bookstore shelves include books such as Why Johnny Can't Read--And What You Can Do About It (Flesch, 1955), Why Johnny Still Can't Read (Flesch, 1981), and A Parent's Guide to Children's Reading (Larrick, 1969).

As a result of this overriding concern for improving reading achievement, changes in classroom reading practices and curriculum have been frequent. These changes often stem from dissatisfaction with prevailing methods, materials, classroom organizational patterns, and/or models of reading. The search for solutions has pushed many schools into new programs for which they were ill prepared, resulting in rejection of "tried and true" procedures for new and innovative ones. This has often resulted in frustration and chaos for classroom teachers, as well as posing a problem for pre-service and in-service teacher-trainers (Congreve, 1968).

Professional journals are filled with research investigations related to reading instruction that are well designed, carefully

implemented, and thoroughly documented, but regrettably, they offer few solutions (Farr & Weintraub, 1975-76). It is evident from a review of the literature that research results have had little impact on actual educational practices (Chall, 1967; Durkin, 1968; Otto, 1978; Singer, 1978). Several explanations have been offered for the limited effects of research. One explanation is that research contrary to popular opinion or practices is largely ignored (Chall, 1967; Durkin, 1968). Simple ideological resistance to research in general may account for the lack of implementation of results (Moynihan, 1968). A third explanation is that many experiments are limited in generalizability. Often the research situation bears little resemblence to "real-life" teaching situations where children come in unmatched groups, where it is difficult to control all relevant variables or conditions, and/or where keeping variables constant is next to impossible (Chall, 1967; Congreve, 1968). Another explanation is that researchers often do not study those problems that teachers view as important concerns (Otto, 1978). In addition, Krathwohl (1974) suggested that researchers fail to seek the help of practitioners in further validating findings, while Chall (1967) proposed that the most important questions have not been asked. A final reason for the limited effects of research is that researchers often have little idea of what teachers are actually doing in the field (Goodlad, 1977).

The researchers cited above have documented the need for improvement in reading research if results are to have educational

implications and transfer to actual classroom practices. They have indicated a need for research designs and approaches that allow variables to emerge from the situation being studied, that admit to a lack of answers and even to a lack of good questions, that allow for study in a natural setting, and that provide for the researcher's biases as well as alternative interpretations (Durkin, 1978-79; Farr & Weintraub, 1975-76; Robinson, 1968). Robinson (1968) further proposed both that reading researchers should be able to exchange information on exploratory investigations without being compelled to draw final conclusions and that replication of potentially useful studies should be undertaken in order to permit a large accumulation of data before conclusions are reached. Further, it has been suggested that research in reading ought to be a combined effort of reading practitioners and researchers (Otto, 1978).

One position consistently supported by research suggests that the majority of children can learn to read by a variety of methods. The skill of the teacher has been shown to be more important than differences in methodology (Chall, 1978; Chall & Feldman, 1966; Jansky & de Hirsch, 1972; Robinson, 1968). Thus the classroom teacher is of primary importance in preventing and treating reading problems and in facilitating reading achievement (Chall, 1978). However, while the importance of the teacher in the instructional process has been demonstrated repeatedly, the identification of the actual teaching behaviors of effective teachers has not been conclusive.

Rosenshine and Furst (1973) proposed three steps in the identification and verification of effective teaching behaviors in general. The first step is description of the classroom environment. The second step involves correlational study, i.e. what processes are associated with what products. The final step is experimentation, i.e. direct manipulation of a process to determine its effect.

Statement of the Problem

Durkin (1978-79) recommended that the first step in improving reading research and instruction is to determine what the current practices are and their frequency. Since the ways in which teachers and students spend their time during reading instructional periods are important to the development of reading skills, this study focused on the behaviors of classroom teachers during reading instructional periods. The purposes of the study were to identify and describe the frequency of teacher behaviors that occur during classroom reading instruction. The following problematic questions were addressed: (1) How much time is scheduled for formal reading instruction; (2) What proportion of teacher behavior during scheduled reading instructional periods is concerned with actual instruction in reading; (3) What proportion of teacher behavior during scheduled reading instructional periods is concerned with non-instructional activities; (4) What proportions of teacher behaviors during scheduled reading instructional periods are concerned with each

of the major reading skill areas; (5) What proportions of teacher behaviors during actual reading instruction are concerned with each of the major reading skill areas; and, (6) Within each major reading category, what types of skills are emphasized. Additionally, it was the intention of this study to identify the relationship of behaviors occurring during actual reading instructional time to teacher behaviors occurring during the total scheduled reading time.

Importance of the Study

This research reflects several dimensions of importance to the study of reading. First, the descriptive information regarding time allocations, skills emphasized, and teacher behaviors may be useful in generating hypotheses as to the effects of these variables on student learning. These hypotheses might provide a basis for future research involving both practitioners and researchers in validating, or invalidating, current practices.

Second, this study provides additional data similar to that of other recent research projects (Durkin, 1978-79). It should add supportive data to an already accumulating body of knowledge which would facilitate reaching more conclusive findings in the identification of effective teaching behaviors in reading.

Finally, this research project offers an opportunity for a collaborative effort between university research interests, Area Education Agency staff, and public school personnel. It provides an opportunity to observe the degree to which teachers follow

procedures recommended or discussed in reading methodology courses and textbooks. The information obtained should be useful not only for this study, but should also be of value in assisting school personnel, administrators, consultants, and educational strategists in working with classroom teachers in the organization and use of instructional time. The information obtained should be of special importance to preservice and in-service teacher-trainers.

Assumptions

The main assumption of this project is that the teachers participating will demonstrate the behaviors identified on the behavioral observation recording device and that these behaviors will be emitted with a sufficient degree of frequency that can be measured in one-minute intervals.

Limitations

One possible limitation lies with the amount of time spent observing. It can be argued that seven observations may not be sufficient to produce an accurate picture of classroom practices. However, seven observations is the maximum allowed by funds and time allotted.

Another possible limitation lies with the observational time period. Observations close to the end of the school year may not be totally reflective of instruction throughout the rest of the school year.

A third possible limitation lies in the small number of classrooms observed. However, it is hoped that by limiting the observations to one grade level rather than several, a clearer picture will emerge for that particular grade level.

Definition of Terms

Reading Comprehension

Reading comprehension involves obtaining appropriate meaning from written units larger than the single word (Harris, 1970). The following categories for classifying teacher behaviors related to reading comprehension may be applied to instruction with a single child, a small group, or a whole class.

Comprehension-application. The teacher does or says something in order to determine whether comprehension instruction enables students to understand connected text (Durkin, 1978-79). This activity is done under the direct supervision of the teacher. Example: if the class is working on how to identify the main idea of a paragraph, the teacher selects new paragraphs and has students demonstrate how to identify the main idea of each. This category includes checking assignments if discussion of answers is included.

Comprehension-assessment. The teacher does or says something to determine a student's understanding of the reading of more than a single word (Durkin, 1978-79). Example: the teacher asks questions about what students have read.

Comprehension-assignment. The teacher gives an assignment that requires the comprehension of connected text (Durkin, 1978-79). Example: the teacher assigns a cloze exercise. (Note: a list of questions about material to be read given before reading begins is Comprehension-preparation; if questions are given with directions such as, "After you have read the story answer the questions at the end," it is Comprehension-assignment.)

Comprehension-helps with assignment. The teacher does or says something in order to help students having difficulty with a comprehension assignment. Example: the teacher raises questions or suggests a part to be reread.

Comprehension-instruction. The teacher does or says something to help students understand or work out the meaning of more than a single word (Durkin, 1978-79). Example: the teacher explains how to figure out the meaning of an unfamiliar phrase.

Comprehension-prediction. The teacher does or says something to aid students in predicting events (Durkin, 1978-79). Example: after the first part of the story is read the teacher may ask, "What do you think will happen next?"

Comprehension-preparation. The teacher does or says something to help prepare students for reading a selection before reading begins (Durkin, 1978-79). Example: the teacher provides background information or raises questions to be answered.

Phonics

Phonics is concerned with "the study of the relationships of speech sounds (phonemes) to the printed or written symbols that represent them (letters and letter strings, called graphemes) and their use in discovering the pronunciation of printed and written words," (Harris, 1970, p. 69). The following categories may be applied to instruction with a single child, a small group, or a whole class.

Phonics-application. The teacher says or does something to have students practice or use phonics skills that have been taught (Durkin, 1978-79). This is done under the direct supervision of the teacher. Example: the teacher has a student give individual letter sounds and blend them to form new words. This includes checking assignments if discussion of answers is included.

Phonics-assignment. The teacher has students practice or use phonics skills on their own. Example: the teacher assigns a worksheet on beginning sounds.

Phonics-helps with assignment. The teacher does or says something in order to help students having difficulty with a phonics assignment. Example: the teacher points out the vowel or underlines the beginning sound.

Phonics-instruction. The teacher provides direct instruction in some aspects of phonics. Example: the teacher presents sound/symbol correspondence for consonants.

Structural Analysis

Structural analysis is concerned with derived and inflected words, compounds, and contractions (Durkin, 1978-79). The following categories may be applied to instruction with a single child, a small group, or a whole class.

Structural analysis-application. The teacher does or says something to have students practice or use structural analysis skills that have been taught (Durkin, 1978-79). This is done under the direct supervision of the teacher. Example: the teacher has a student add endings to root words. This includes checking assignments if discussion of answers is included.

Structural analysis-assignment. The teacher has students practice or use structural analysis skills on their own. Example: the teacher assigns a worksheet on contractions.

Structural analysis-helps with assignment. The teacher does or says something in order to help students having difficulty with a structural analysis assignment. Example: the teacher underlines endings or points out the root of a word.

Structural analysis-instruction. The teacher provides direct instruction in some aspects of structural analysis. Example: the teacher demonstrates how to form contractions.

Study Skills

Study skills are concerned with activities designed to encourage independent study and learning. It includes such things

as locating information, outlining, summarizing, notetaking, skimming, reading maps and graphs, and varying the rate of reading to suit the purpose or difficulty of the material (Harris, 1970). The following categories may be applied to instruction with a single child, a small group, or a whole class.

Study skills-application. The teacher does or says something to have students practice or use study skills that have been taught (Durkin, 1978-79). This is done under the direct supervision of the teacher. Example: the teacher asks where to find specific information in an atlas, a dictionary, or an encyclopedia. This includes checking assignments if discussion of answers is included.

Study skills-assignment. The teacher has students practice or use study skills on their own. Example: the teacher assigns an article to be outlined independently.

Study skills-helps with assignment. The teacher does or says something in order to help students having difficulty with a study skills assignment. Example: the teacher points out the topic sentences of paragraphs to be outlined.

Study skills-instruction. The teacher provides direct instruction in some aspect of study skills. Example: the teacher explains how to use the legend to a map.

Oral Reading

Oral reading is concerned with having children read written material aloud (Durkin, 1978-79). The following categories may be

applied to instruction with a single child, a small group, or a whole class.

Oral reading-application. The teacher directs students to practice or use those skills stressed for good oral reading (Durkin, 1978-79). This includes such things as phrasing, pausing, and expression and is done under the direct supervision of the teacher.

Oral reading-instruction. The teacher does or says something to aid students in improving the oral delivery of written material (Durkin, 1978-79). Example: the teacher demonstrates how to read a paragraph with expression.

Oral reading-listens to. The teacher spends time listening to students read aloud. Example: the teacher listens during round-robin reading.

Silent Reading

The teacher waits while students read silently.

Listening

Listening is concerned with the memory and understanding of auditory/verbal material (Durkin, 1978-79). The following categories may be applied to instruction with a single child, a small group, or a whole class.

Listening-assessment. The teacher does or says something to determine a student's understanding and memory of a verbal presentation (Durkin, 1978-79). Example: the teacher asks questions about a selection after it has been read aloud to students.

Listening-assignment. The teacher has students practice or use listening skills on their own. Example: the teacher assigns a task involving the use of a tape recorder.

Listening-helps with assignment. The teacher does or says something in order to help students having difficulty with a listening assignment. Example: the teacher points out important parts on a tape.

Word Meaning

Word meaning is concerned with understanding the meaning of single words (Durkin, 1978-79). The following categories may be applied to instruction with a single child, a small group, or a whole class.

Word meaning-application. The teacher does or says something to have students practice or use word meanings that have been taught (Durkin, 1978-79). This is done under the direct supervision of the teacher. Example: the teacher has students use words in sentences that demonstrate their meaning. This category includes checking assignments if discussion of answers is included.

Word meaning-assignment. The teacher has students practice or use word meanings independently. Example: the teacher assigns a reading center where the student matches a word card with a picture card to show the meaning.

Word meaning-helps with assignment. The teacher does or says something in order to help students having difficulty with

a word meaning assignment. Example: the teacher identifies picture names for students matching word and picture cards.

Word meaning-instruction. The teacher gives direct instruction in individual word meanings. Example: the teacher introduces new vocabulary words or demonstrates word meanings.

Word Identification

The teacher directs students in identifying or recognizing single words (Durkin, 1978-79). Example: the teacher has students read a word list or flash cards.

Discussion

This category is used when the teacher is directing a discussion that has instructional potential (Durkin, 1978-79).

Reads Aloud

The teacher reads aloud to one or more students.

Listens

This category is used when the teacher is listening to one or more students on instructional material (Durkin, 1978-79). Example: the teacher listens as students relate personal experiences to a story read.

Demonstration

The teacher demonstrates something such as how to manipulate the tape recorder or record player.

Tests

The teacher sets out to specifically test or assess a skill. Example: the teacher administers informal oral reading checks, standardized reading tests, or end of book tests.

Non-Instruction

The teacher spends time doing something that is not related to reading instruction. Example: the teacher spends time talking to a classroom visitor.

Non-instruction-checks assignments. The teacher corrects or records assignments but does not provide instruction or follow-up to students. Example: the teacher sits at a desk recording grades or reads answers aloud while children check papers.

Non-instruction-collects material. The teacher collects something such as papers, supplies, or textbooks.

Non-instruction-management. The teacher uses some type of behavior management technique. Examples: the teacher uses positive reinforcement, discipline through reprimand, or time-out. This includes both positive and negative aspects of management.

Non-instruction-waits. The teacher is not involved in instruction but is waiting. Example: the teacher waits while children pass papers or watch a film.

Non-instruction-listens. The teacher listens to students on a non-instruction subject.

Non-instruction-transition. The teacher waits between a change in classes or reading groups.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Generally, the research methodologies available for identifying teacher instructional behaviors have been of the following three types: survey report, supervisor observation/evaluation, and trained observer report. Numerous studies (Ehman, 1970; Steele, House, & Kerins, 1971; Weiss, 1973) have been based on teacher reports of their own behaviors in the classroom. While it is possible to survey a large sample using this approach, the authors of these same studies have stated that teacher reports do not reflect the same behaviors reported by classroom observers. Schatzman and Strauss (1973) also noted that interviews and questionnaires should not be used exclusive of observation because (1) a person may be unable to describe and/or explain his/her own actions, and (2) the "referential situations" may be too easily idealized. Hence, survey reports alone have not yielded data of sufficient validity for describing and understanding teacher practices in the classroom.

A second research approach is the use of evaluative data obtained through observation by teaching supervisors such as principals. Studies utilizing this approach have often been criticized for the lack of observer training as it relates to the

systematic observation of a specific aspect of instruction, particularly in reading education (Rosenshine, 1978). Administrative and supervisory personnel are often trained to observe instruction in general, but are not trained to analyze the instructional components specific to reading. Thus, the use of evaluative data obtained by supervisory personnel has not provided the specific data necessary for describing and understanding classroom reading practices.

The third research approach has been the observation of classroom reading instruction by observers trained specifically in reading education. While this methodology affords a more valid approach for both the collection of descriptive information and the interpretation of that data as it relates to reading instruction, it is not without problems. One difficulty arises in the recording of observational data. Clements (1980) reported that studies have employed techniques such as categorical observation, ethnographic observation, and videotaping. Simon and Boyer's 17-volume anthology (1967, 1970) contains over 90 observational systems, most of which were designed to categorize and record some aspect of general classroom behavior. Although a few instruments have been designed for use in a specific curriculum area, almost all of these systems can be used in other subjects. Few instruments have been developed that focus on specific instructional components (Rosenshine, 1970). Despite this broad range of data recording techniques, little has

been concluded about the relative merits of these different methods and instruments (Marliave, Fisher, & Filby, 1977). Many researchers have cautioned that the reliability of the recording technique be demonstrated and that precautions be taken to assure generalizability (Borich, Calkins, Malitz, Oded, Kugle, & Pascone, 1977; Borich & Malitz, 1975; Emmer & Peck, 1973; Erlich & Borich, 1976). Despite the difficulties noted above, the observation of classroom reading instruction by observers trained specifically in reading appears to be the most valid research approach available for the collection of data on classroom reading practices. Therefore, the studies chosen for review as relevant to this research project focused on the use of trained observers. Of particular interest to this research is the variety of methods used for data collection; therefore, included in the review of previous studies is a description of techniques used, when possible, as well as a summary of their findings.

Within this third research approach, many studies have been conducted that focused on teacher behaviors during the reading instructional period. Studies designed to identify effective teacher instructional behaviors during reading have been categorized into two major groups: (1) correlational studies relating some aspect of teacher behavior and student achievement, and (2) descriptive studies focusing on specific instructional components. The first section of the literature review provides a discussion

of correlational studies relevant to this research project. The second section provides a review of current descriptive studies.

Correlational Studies

Correlational studies have been designed to relate some aspect of teacher behavior with student achievement. Four major types of correlational research were noted: (1) scheduled time, (2) engaged time, (3) process-product studies, and (4) attempts to verify the results of previous process-product studies. A discussion of each type of study follows.

Scheduled Time Studies

One type of correlational study has attempted to relate the time scheduled for reading instruction with student achievement. One of the earliest studies correlating teacher scheduled time and student achievement was conducted by Jarvis (1962). Sixty-four Texas Gulf Coast school districts were surveyed to determine the amount of time scheduled each day for each academic area, including reading. Group intellectual and achievement test data were gathered for target schools. The data revealed that most schools had seven hour days during which they allotted anywhere from 40 to 78 minutes per day for reading instruction. Further data analysis suggested that pupils achieved as much in reading vocabulary and comprehension in 40 to 50 minute periods as in 60 to 78 minute periods. The author concluded that there was no apparent agreement on time

allocations for reading and that longer class periods did not result in more significant pupil achievement in reading.

Another notable scheduled time study was the CRAFT Project (Comparing Reading Approaches in First-Grade Teaching with Disadvantaged Children) (Harris & Serwer, 1966). The project was designed to study whether gains in reading achievement resulted more from the type of approach used or from the amount of time scheduled for reading instruction. Data were collected on four instructional methods. The project involved 48 volunteer teachers who were randomly assigned to teach any one of the four methods. The teachers were trained extensively in the teaching method to which they were assigned and attended bi-weekly workshops during the course of the year. Frequent class visits were made by consultants to insure that experimental conditions were maintained. Teachers kept logs of the time scheduled for reading and supportive activities. Pre-test and post-test achievement data collected for the 48 classes suggested that greater differences in results appeared within each of the four methods than between any two methods. The authors further analyzed the data to determine why some teachers using the same method produced more significant achievement gains than others. Results, based on teachers' logs of time scheduled for reading instruction and supportive activities, suggested that reading time was positively correlated with reading achievement for all methods combined, while supportive time and

total time were not. The authors concluded that teachers' time was a significant factor in student reading achievement.

Another major study correlating teacher scheduled time and student achievement was the Beginning Teacher Evaluation Study (BTES) (McDonald & Elias, 1976), a long-term study of teacher effectiveness sponsored by the California State Commission for Teacher Preparation and Licensing. The study was divided into two phases. The goals of Phase I were: (1) to describe the distribution of student time spent in instructional settings; (2) to describe these distributions for reading over students within the same class, over several days for the same student, and over students in different classes; (3) to describe the relationship between time spent in various instructional settings and student achievement in reading; and (4) to develop practical procedures for the collection of time-in-setting data (McDonald & Elias, 1976).

The Phase I study was divided into investigations of second and fifth grades. Data on time-allocations were collected through teacher logs and direct observation by trained observers. A total of 25 second grade classes was examined. The time allocated for reading instruction ranged from a low of 47 minutes a day to a high of 118 minutes, and an average of 88 minutes a day. Approximately 33 percent of the reading time was allocated to decoding; 23 percent allocated to areas related to reading such as grammar,

dictionary skills, and creative writing; and 10 percent each allocated to comprehension, reading practice, and miscellaneous. The authors indicated positive, but relatively weak, relationships between time allocated and student achievement (Fisher, Filby, Marliave, Cahen, Moore, & Berliner, 1976). A total of 21 fifth grade classes was examined. The time allocated for reading instruction ranged from a low of 60 minutes a day to a high of 137 minutes, and an average of 74 minutes a day with a standard deviation of 11. The findings of the study revealed a wide variety of content covered, wide differences in the kinds of settings employed in the classrooms, and differences in the exposure of students in the same class to a variety of settings. The results of the analysis of allocated time and student achievement were described as inconclusive (California State Commission for Teacher Preparation and Licensing, 1976).

In summary, research correlating scheduled instructional time and student achievement has proven difficult because of the multiplicity of variables involved. Jarvis (1962) recognized that variables such as student variations in needs and abilities, class sizes, student attendance, and how time was used, would affect research results. Harris and Serwer (1966) noted difficulties in the use of teachers' self-report on time variables. They also noted that all uses of scheduled time are not of equal value, i.e., some activities are more profitable than others. Thus far, the data collected in studies correlating scheduled time and student

achievement have demonstrated that there is wide variation in the amount of time scheduled for reading instruction. Although the results of scheduled time studies have been inconclusive, the questions raised have led to a second type of correlational research, engaged time studies.

Engaged Time Studies

Engaged time studies have attempted to correlate student achievement and the proportion of scheduled time compared with time actually spent engaged in reading instruction. This question has been investigated in two ways. Cobb (1972) and Samuels and Turnure (1974) have used trained observers to record the proportion of student attending behaviors. Both studies found higher achievement gains associated with higher incidences of attending behaviors by students. While these studies have provided valuable information in regard to teaching reading, they have not identified specific instructional components or effective teacher behaviors.

Porcher (1974) and Hautala and Aaron (1977) have investigated student achievement gains related to "time spent in" vs. "time out" behavior of successful primary classroom teachers of reading. Primary grade teachers whose students had gained an average of more than one academic year of growth in reading per eight months of instruction were selected for study. Both Porcher (1974) and Hautala and Aaron (1977), using the same observational Time Schedule, made frequency counts of eight time-in behaviors related to the reading

task at hand and twelve time-out categories of teacher behaviors. Both authors reported a significant correlation between teachers' time-in behaviors and their students' reading achievement gains.

Felsenthal and Kirsch (1978) studied variability in scheduled and engaged time in reading among classrooms and in management styles among teachers in 13 intermediate classrooms. Information on scheduled reading time was obtained by interviewing school administrators, while information on engaged reading time was obtained through direct classroom observation. An additional structured observational record was used to provide a measure of teacher management style. Data analysis revealed extreme variation in teacher management style and in the amount of scheduled and engaged time in reading in each classroom. Analysis of pre-test and post-test achievement data suggested that neither engaged time nor management style accounted for a significant percentage of the variability in reading post-test scores. The authors concluded that although the results were not statistically significant, further study was warranted to attempt to relate teacher behavior to student learning.

Engaged time in reading instructional periods has been investigated in relation to student attending behaviors and teacher engaged instructional behaviors. While both have generally been found to correlate positively with student achievement, the authors

of the studies cited above have indicated that further studies were necessary to determine whether specific teacher behaviors that were effective could be identified. This has led researchers to the third type of correlational research, process-product studies.

Process-Product Studies

Process-product studies have attempted to identify specific teacher instructional behaviors (processes) that have led to student achievement (product). A major process-product study was Phase II of the Beginning Teacher Evaluation Study (BTES) (McDonald, 1976; McDonald & Elias, 1976). Phase II focused on effective teaching behaviors, i.e., what teachers do that affects what and how students learn in reading. The purposes of Phase II were: (1) to develop an assessment system for measuring teacher and pupil behaviors and other factors which could influence each of them and their interrelationships; and (2) to generate hypotheses about the interrelationships among teacher and pupil behaviors and related factors. The research was based on the assumption that differences among teachers in how they organize instruction, in the methods and materials they use, and in how they interact with children would have different effects on how much children learned (McDonald & Elias, 1976).

The study involved 41 second and 54 fifth grades in eight California school districts, including urban, rural, and suburban

schools. Data were collected by means of teacher reports and work diaries, videotapes of actual classroom teaching, and records of trained observers. Student achievement was measured by the California Achievement Test (McDonald, 1976; McDonald & Elias, 1976).

It was determined that a suitable behavioral observation instrument was not available for recording teacher and student behaviors; a major goal of the project was to develop one. The Anecdotal Process for Promoting the Learning Experience (APPLE) and Reading and Mathematics Observation System (RAMOS) were developed. APPLE involved continuous behavioral recording of what the teacher and a selected child were doing. These were then coded, organized into categories, and recorded in categories in RAMOS. Teaching context, teacher and pupil activities, materials, and content were included as categories (Calfee & Calfee, 1976; Lambert, 1976; McDonald, 1976).

The authors stated that the results of the study indicated that a significant relationship exists between how teachers teach and how much students learn. The general picture that emerged from the data suggested that a pattern of teaching practices is more likely to be related to learning than a single practice, and that effective teaching patterns will differ with subject matter and grade level. The data also suggested that the critical factor in organizing instruction appears to be the degree to which the

procedure facilitates managing the instructional process. Therefore maintaining a high degree of both classroom organization and teaching performance provided more direct instruction to students which subsequently resulted in improving learning. The authors concluded that spending considerable time in the organization of instruction rather than in direct instruction is ineffective for improving student learning (McDonald & Elias, 1976).

A second study that attempted to explore the relationship between specific teacher behaviors and student academic achievement was the Texas Teacher Effectiveness Study (Crawford, Evertson, & Brophy, 1976). Thirty-one teachers, who consistently produced pupil achievement over the four year period prior to the study, were selected to participate in the study. Trained observers used a classroom coding system to record public encounters between teachers and individual children. It involved the use of checklists and coding sheets that described the frequency of behavioral and academic interactions such as positive and negative teacher feedback, percent attending, and teacher tone of voice. Each classroom was observed by two observers at different times for a total of four times during the first year and 14 times during the second year. Data analysis revealed a general pattern of effective classrooms. The authors stated that classrooms that were task oriented, that maximized academic interaction, and that avoided

behavior problems produced greater achievement. Although few specific effective instructional behaviors were isolated, the authors concluded that teacher behaviors do influence student achievement.

The studies reviewed on identifying effective teaching behaviors have been correlational. The results have described relationships between the processes and the products, between teacher behaviors and student achievement. Anderson, Evertson, and Brophy (1979) stated that although it is often assumed that the teaching behavior associated with student learning caused the learning, this assumption cannot be supported with correlational data. Correlational findings must be verified through experiment, the fourth category of correlational research.

Attempts at Verifying Results of Process-Product Studies

As part of the Texas Teacher Effectiveness Study, the First-grade Reading Group Study (Brophy, Mahaffey, Greenhalgh, Ogden, & Selig, 1975) was an experimental study designed to verify the findings of correlational studies. The major objectives of the study were to substantiate earlier work by experimentally testing 22 principles of effective instruction and to determine how effective the treatment was in promoting change in teachers' behaviors in a natural setting (Anderson, Evertson, & Brophy, 1979; Brophy et al., 1975). A total of 27 first grade teachers

participated in the study. Ten teachers served as a control group. Seventeen teachers participated in the treatment, ten were observed regularly while the remaining seven were not observed (Anderson, Evertson, & Brophy, 1979). A classroom observation coding system, adapted from the Brophy-Good Dyadic Interaction Coding System, was designed especially for use in the study. It was used only in reading to measure public encounters between the teacher and individual children. It involved the use of high inference coding sheets, which were checklists and rating scales describing events that were not interactions, and low inference coding sheets, describing behavioral and academic interactions. Examples of low inference events included attention getters, percent attending, instructional content overview, teacher's tone of voice, and types of teacher feedback (Brophy et al., 1975). Data analysis revealed differences in student achievement, however, results were not conclusive. The authors suggested that it was possible to conclude only that the content of the treatment had some effect on achievement, and that other factors, such as expectancy and school effects, could not be completely ruled out (Brophy et al., 1975).

Summary of Correlational Studies

The identification of effective teacher behaviors has not been easy since the teaching-learning situation is so complex. Data collected to date in correlational studies seem to indicate that engaged instructional time and teacher behaviors are factors

related to student achievement, but they cannot be considered causal. Correlational findings must be verified through experiment. Experimental studies designed to verify the results of correlational studies have been inconclusive. One of the major reasons for the difficulties encountered in correlational research studies is that little baseline data has been gathered. There has been no "standard" developed from which hypotheses could be generated for research in identifying effective teacher behaviors. There has been no "standard" developed with which the results of correlational studies could be compared. This has led to a trend for current researchers to design descriptive studies, the second major research category discussed.

Descriptive Studies

Descriptive studies have been designed to describe, in detail, what goes on in classrooms in general, and during reading classes in particular. One of the first major studies in the observation and description of what goes on in classrooms in general was conducted by Goodlad and Klein (1974). Data were collected in public schools in California through extensive interviews with teachers and principals and through classroom observations. Anecdotal records were used by trained observers. A summary of findings based on 158 classrooms, grades kindergarten through third, in 67 schools was presented. Results showed that textbooks predominated as the medium

of instruction; that telling and questioning were the predominant methods of teaching; that there was little individualization of instruction; and that much time was spent in classroom control, routine, and management. Although Goodlad's study did not focus directly on reading instruction, it was the first large-scale study of this type and legitimatized descriptive research. It provided the framework for future descriptive studies in reading.

A study focusing on the description of teacher behaviors during reading instruction was conducted by Quirk, Trismen, Nalin, and Weinberg (1975). The study concentrated on compensatory reading programs in grades two, four, and six. A special observation instrument was designed to categorize teacher behaviors in terms of mode and content so that a single observer could simultaneously code one behavior for both categories at fixed intervals. The mode dimension described the manner in which material was presented to students. It included teacher-talk, other adult-talk, student-talk, machine, and no-talk. The content dimension described the kind or type of activity being performed. It included reading comprehension, reading pronunciation and word recognition, reading language structure, reading silently, spelling, listening instruction, non-reading instruction, management instruction, positive feedback, negative feedback, and extraneous (Quirk, Nalin, & Weinberg, 1973).

A total of 135 classrooms were observed nine times each. Observations were 22 minutes in length with 15 minutes of coding. Results were summarized as percent of time per category for mode and content of instruction for each teacher individually and for all teachers as a group. The results of the observation for mode of instruction indicated that teachers talked 45 percent of the time, attended to student talk 27 percent of the time, attended to a machine approximately 2 percent of the time, and attended to another adult approximately 1 percent of the time. The results of the observation for content of instruction indicated that teachers spent 30 percent of their time in management of instruction, 26 percent in pronunciation and word recognition activities, 12 percent in comprehension activities, 9 percent in spelling activities, and 4 percent in non-reading instruction. The authors stated that the results of this research were to provide baseline data for further investigation into the relationship between teacher behaviors and student achievement in these same subjects (Quirk et al., 1975).

While the research conducted by Quirk and associates (1975) focused on compensatory reading programs, it provided useful information, such as the mode and content categories, that could be applied to observation of regular classroom reading instruction. The observation instrument, generated through extensive observation in compensatory reading classes, presented a major difficulty. In

instances when the teacher performed more than one activity during the observational interval, a hierarchy was established so that one, and only one, activity was recorded. Quirk and associates (1975) recognized that this coding rule had some influence on results, although they did not discuss the implications.

A landmark study in the observation of classroom reading instruction was conducted by Durkin (1978-79). The focus of the study was to examine through classroom observation whether elementary schools provided reading comprehension instruction and to determine the amount of time spent on it. Observations were conducted by Durkin and two associates, trained by the researcher. Data were collected through the use of anecdotal records in reading and social studies periods. Observers recorded the time each different activity began and ended, described each activity, noted who was with the teacher at the time of an activity, and noted the source of the activity, i.e. a workbook or chalkboard lesson. A total of 175.62 hours of teacher observations was made in twelve classrooms, grades three through six, in three schools. Durkin's analysis of the data suggested the following major findings: (1) First, practically no reading comprehension instruction was found. (2) Other kinds of reading instruction were not seen with any frequency either. (3) Teachers were generally seen as questioners and assignment givers. (4) Finally, the social studies period was not used as a time for instruction in reading comprehension, but rather as a time for children to master content area facts.

While Durkin's study has provided a starting point for future research, several difficulties have been noted. The major difficulty noted was the lack of an observation instrument. This prevents specific replication of the study and provides no framework for data collection or data analysis. A second difficulty has been noted in the definition of categories. Hodges (1980) stated that while Durkin described her extensive search for guidelines for a definition of comprehension as nonproductive, little in the way either of the source or the rationale was provided for her own subsequent definition. Little information was provided to clarify how category definitions were determined. A final difficulty, recognized by Durkin, was the amount of time spent observing. Each classroom was observed only three times, all observations in the same week. The representativeness of a sample of this nature is questionable.

The authors of the descriptive studies cited above have stated that more needs to be learned about what actually goes on in classrooms, in general, and in reading instruction, in particular. All have stated that there is a need to gather more baseline descriptive data before moving to correlational study and experimentation regarding the relationship between teacher behaviors and student achievement.

Summary

The first step in the identification and verification of effective teaching behaviors, proposed by Rosenshine and Furst (1973), was description of the classroom environment. However, it is evident from a review of descriptive studies that little has been done toward compiling a comprehensive description of what goes on in classrooms. Knowledge of what actually goes on in schools is exceedingly limited (Goodlad, 1977).

Correlational and process-product studies have suggested that teacher behaviors are associated with student achievement, but results have generally been inconclusive. It has been difficult, at best, to identify specific teacher behaviors that are causally related to student achievement (Anderson, Evertson, & Brophy, 1979). Several explanations have been suggested to account for the difficulty in identifying effective teacher behaviors. One explanation arises from the observational instruments used. Marliave et al. (1977) discussed a broad range of data recording techniques, but noted that little has been concluded about the relative merits of different methods and/or instruments. Another explanation is that the teaching-learning situation is highly complex. Even when specific teacher behaviors have been identified as effective, it is often impossible to rule out other related factors, such as expectancy (Brophy et al., 1975).

A final explanation offered for the inconclusive results of correlational and process-product studies is that the first step in the verification of effective teacher behaviors, development of a procedure for describing teaching in a quantitative manner, has not been undertaken. Goodlad (1977) stated that the fact that so much is made of inquiries focused largely on outcomes merely serves to highlight the absence of comprehensive inventories of what actually goes on in classrooms.

Durkin (1978-79) stated that all this points directly to the need for additional descriptive studies. Farr and Weintraub (1975-76) confirmed the need to know more about what actually goes on in the teaching of reading. Therefore, this study was designed to identify and describe the frequency of teacher behaviors that occur during classroom reading instruction. An observation instrument based on the categories identified by Durkin (1978-79) and in reading methodology texts (Bond, 1966; Durkin, 1970; Harris, 1970; Smith, 1963) has been developed specifically for this research. The data collected in this study should add supportive data to an already accumulating body of baseline data which would facilitate reaching more conclusive findings in the identification of effective teaching behaviors in reading.

CHAPTER 3

METHODS AND PROCEDURES

This chapter provides a description of (1) the target population, (2) the development of the observation instrument, (3) the procedures employed in this study, and (4) the method for data analysis. Each of these areas is discussed, in detail, in the section that follows.

The Target Population

The subjects who participated in this study consisted of seven willing fourth grade teachers from five rural schools in northeast Iowa. The total number of years of teaching experience ranged from 4 to 22 years. All teachers had earned a Bachelor of Arts in Education, which was also the highest degree earned.

The classrooms ranged in size from 16 to 25 students, while the number of reading groups per classroom ranged from one to four. Four of the seven classrooms were self-contained, one was departmentalized, and two were ability grouped between two teachers. Four classrooms used the Lippincott series as a basal reader, two used Scott Foresman Reading Systems, and one used no basal series, but selected stories from many basal readers. Student reading achievement levels, based on school achievement tests and teacher

estimates, ranged from first to eighth grade, while reading instructional materials ranged from second through fourth grade in level of difficulty.

The Development of the Teacher Observation Instrument

The Teacher Observation Instrument was developed specifically for this study of reading instruction in elementary classrooms. It was designed to describe the major types of teacher behaviors that were expected to take place during reading instruction, so that a systematic study of the teacher's activities during reading instructional periods could be undertaken. Travers (1971) emphasized the importance of deriving variables for observational systems from experimentation rather than inspiration. The categories for the Teacher Observation Instrument were based on those identified in Durkin's study (1978-79) and those described and recommended in reading methodology texts (Bond, 1966; Durkin, 1970; Harris, 1970; Smith, 1963). The 15 major categories, defined in Chapter 1, included: comprehension, phonics, structural analysis, study skills, oral reading, silent reading, listening, word meaning, word identification, discussion, reads aloud, listens, demonstrates, tests, and non-instruction. Each category was comprised of specific subskills. See Appendix A for a sample of the observational recording form.

The Teacher Observation Instrument was reviewed by a committee of reading specialists and then field-tested. Minor modifications in the format of the recording form were made as a result of the field-test, but there were no changes in major categories or subskills.

Rosenshine and Furst (1973) discussed the issues of reliability in the use of classroom observation instruments. They stated that observer agreement is the most common form of reliability, and recommended that an agreement coefficient be obtained for a tally of total events, and also for individual events. In order to assess the rater reliability of the Teacher Observation Instrument, an additional rater was trained to use the instrument, and two joint observations were made. The inter-rater reliability, calculated using the Pearson product-moment correlation coefficient formula, was $r = .99$ indicating a high positive degree of correlation between the two observers for a tally of total events. Additional examination of the observational recording forms revealed that differences resulted mainly from recording the duration of an activity from one interval to the next. For example, while one observer may have recorded listening to oral reading over a period of three intervals, the second observer may have recorded the same activity over a period of four intervals. Only a few differences in recording individual events were noted.

Procedures

Seven rural schools in northeast Iowa participated in the project. Fourth grade classrooms were selected for observation. Preliminary information such as actual instructional time scheduled for reading, number of students, number of groups, and materials used, was obtained through individual teacher interviews. A copy of the interview sheet is included in Appendix B.

Each classroom was observed seven times for the entire scheduled reading instructional period. The Teacher Observation Instrument was used to record the frequency of teacher behaviors occurring during one-minute intervals. The observer used a stop-watch with a 60 second sweep, observed for 50 seconds and recorded for 10 seconds. All behaviors noted during the observation were recorded. Recording was continuous throughout the scheduled reading period. Additional anecdotal records were noted to supplement and/or clarify observations. As an example, teacher behaviors that were not on the observational record were noted in anecdotal form. Each observation was tape recorded so that the observational recording forms could be rechecked each day.

On the assumption that instructional content may vary on different days of the week, each classroom was observed on at least four different days, Monday through Friday. No more than two observations were conducted in any one week. Observations were scheduled from March 25, 1981 through May 29, 1981.

Rosenshine and Furst (1973) discussed another type of reliability, "representativeness," determining whether a sample of observed classroom transactions is a trustworthy, representative sample of total behaviors. Several precautions were taken to maximize the representativeness of this study. Care was taken to insure that observations did not occur on atypical school days, or days immediately preceding or following vacations. A schedule of the observations is included in Appendix C.

Rosenshine and Furst (1973) further stressed that the importance of representativeness depends on the purpose of the study. If the purpose is to compare the behaviors of groups of teachers, then the number of observations necessary to obtain a representative group mean may be small. It was assumed that seven classroom observations allowed the investigator to observe sufficient instructional behaviors to be reflective of the "typical" teaching behaviors of each teacher, and particularly of the group as a whole.

All observations were made by this researcher to insure uniformity. The observer has been prepared to observe through coursework in reading methodology, experience in teaching fourth-grade reading, and specific coursework and training in several methods of behavioral observation and charting.

Several precautions were taken to facilitate maximum representativeness of the teaching samples. Teachers were not notified of observations in advance in order to minimize the

possibility of special preparation on observation days. Additionally, since professional responsibilities of the researcher has included regularly scheduled visits to participating classrooms over the past five years, the teachers were already accustomed to having the researcher in their classrooms on a regular basis. It was hoped that the precaution cited above served to assure an acceptable level of representativeness.

Data Analysis

The frequency of each teacher behavior was tallied for each teacher for each observation. Frequencies were then computed for the group as a whole. Proportions of teacher behaviors were then determined for each teacher and for the group as a whole comparing the following: (1) scheduled reading instruction and actual instruction, (2) scheduled reading instruction and non-instruction, (3) scheduled reading and the major skill areas, (4) actual reading and the major skill areas, and (5) major categories and the component subskills.

CHAPTER 4

RESULTS

This chapter presents a descriptive analysis and summary of the data collected. It is divided into six sections, each addressing one of the problematic questions raised in Chapter 1. The sections include results on scheduled time, engaged time, non-instructional behaviors, proportions of behaviors concerned with major reading categories during scheduled time, proportion of behaviors concerned with major reading categories during engaged time, and the type of subskills emphasized. Information gathered from anecdotal records is also included.

Time Scheduled for Formal Reading Instruction

Problematic question one asked how much time is scheduled for formal reading instruction. Table 1 provides information for each teacher on the number of minutes per day allotted for formal reading instruction.

Data collected on the seven teachers in the study show that four teachers scheduled 60 minutes per day, two scheduled 65 minutes per day, and one teacher scheduled 85 minutes per day for formal reading instruction. This accounted for approximately 17 to 20 percent of the total school day.

Table 1

Time Scheduled for Reading Instruction

Teacher	Minutes per day	Proportion of school day
1	60	.180
2	60	.180
3	65	.170
4	65	.170
5	85	.200
6	60	.176
7	60	.166

Proportion of Teacher Behaviors Concerned with Reading Instruction During Scheduled Instructional Time

Problematic question two asked what proportion of teacher behavior during scheduled reading instructional periods is concerned with actual instruction in reading. Table 2 provides the proportions for each teacher and for the total group.

Proportions of teacher behaviors concerned with actual instruction in reading ranged from .54 to .69 for individual teachers and averaged .62 for the total group.

Proportion of Teacher Behaviors Concerned with Non-Instruction During Scheduled Instructional Time

Problematic question three asked what proportion of teacher behavior during scheduled reading instructional periods is concerned with non-instructional activities. Table 3 provides the proportions for each teacher and for the total group.

Proportions of teacher behaviors concerned with non-instructional activities ranged from .31 to .46 for individual teachers and averaged .38 for the total group.

Proportion of Teacher Behaviors Concerned with Each Major Reading Skill Area During Scheduled Instructional Time

Problematic question four asked what proportions of teacher behaviors during scheduled reading instructional periods are concerned with each of the major reading skill area. Table 4 provides this information for each teacher and for the total group.

Table 2

Proportion of Teacher Behaviors Concerned with Reading Instruction During Scheduled Instructional Time

Teacher	Proportions
1	.62
2	.54
3	.60
4	.57
5	.68
6	.60
7	.69
Total group mean	.62

Table 3

Proportion of Teacher Behaviors Concerned with Non-Instruction During Scheduled Instructional Time

Teacher	Proportions
1	.38
2	.46
3	.40
4	.43
5	.32
6	.40
7	.31
Total group mean	.38

Table 4

Proportion of Teacher Behaviors Concerned with Each Major Reading Skill Category During Scheduled Instructional Time

Teacher	C	P	SA	SS	OR	SR	Lg	WM	WI	Ds	RA	Ls	Dm	T	O	NI
1	.23	.005	.000	.005	.04	.000	.04	.05	.002	.04	.14	.000	.005	.04	.000	.38
2	.06	.000	.01	.13	.06	.009	.000	.06	.04	.03	.04	.000	.000	.05	.04	.46
3	.24	.000	.02	.003	.10	.01	.005	.09	.03	.03	.04	.000	.000	.007	.02	.40
4	.17	.005	.04	.01	.12	.02	.000	.04	.03	.07	.01	.000	.000	.01	.04	.43
5	.28	.02	.09	.05	.10	.04	.000	.07	.03	.02	.004	.000	.000	.000	.02	.32
6	.16	.000	.04	.000	.08	.07	.000	.14	.01	.02	.01	.002	.000	.05	.02	.40
7	.19	.007	.06	.000	.23	.000	.000	.12	.02	.02	.02	.000	.000	.000	.02	.31
Total group mean	.20	.006	.04	.03	.11	.02	.006	.08	.02	.03	.04	.0002	.0007	.02	.02	.38

C = Comprehension
P = Phonics
SA = Structural Analysis
SS = Study Skills
OR = Oral Reading
SR = Silent Reading
Lg = Listening
WM = Word Meaning
WI = Word Identification
Ds = Discussion
RA = Reads Aloud
Ls = Listens
Dm = Demonstrations
T = Tests
O = Other
NI = Non-Instruction

The greatest proportion of teacher behaviors for the group was concerned with comprehension, with a proportion of .20. All but two of the individual teachers demonstrated the greatest proportion of teacher behaviors concerned with comprehension, with comprehension ranked third for teacher two with a proportion of .06, and second for teacher seven with proportion of.19. Oral reading and word meaning accounted for the second largest proportions for the group with proportions of .11 and .08 respectively. All teachers, except two, followed this pattern. The areas of structural analysis, study skills, silent reading, word identification, discussion, reads aloud, tests, and other accounted for approximately two to four percent of teacher behaviors. Some variability among teachers was noted within categories. The areas of phonics, listening, listens, and demonstration were rarely observed, and in some cases, not observed at all.

Proportion of Teacher Behaviors Concerned with Each Major Reading Skill Area During Actual Reading Instruction

Problematic question five asks what proportions of teacher behaviors during actual reading instruction are concerned with each of the major reading skill areas. Table 5 provides this information for each teacher and for the total group.

The greatest proportion of teacher behaviors for the group was concerned with comprehension, with a proportion of .32. All

Table 5

Proportion of Teacher Behaviors Concerned with Each Major Reading Skill Category During Actual Reading Instruction

Teacher	C	P	SA	SS	OR	SR	Lg	WM	WI	Ds	RA	Ls	Dm	T	0
1	.38	.009	.000	.009	.07	.000	.07	.09	.003	.07	.23	.000	.009	.07	.000
2	.12	.000	.02	.25	.12	.02	.000	.11	.07	.05	.08	.000	.000	.1	.07
3	.41	.000	.04	.006	.17	.02	.008	.15	.05	.05	.06	.000	.000	.01	.04
4	.30	.009	.06	.02	.21	.04	.000	.06	.06	.13	.02	.000	.000	.02	.07
5	.41	.03	.13	.07	.15	.06	.000	.11	.05	.02	.005	.000	.000	.000	.03
6	.26	.000	.06	.000	.13	.11	.000	.23	.02	.04	.02	.003	.000	.09	.04
7	.27	.01	.09	.000	.33	.000	.000	.17	.04	.03	.03	.000	.000	.000	.02
Total group mean	.32	.01	.06	.05	.17	.03	.01	.13	.04	.05	.06	.0004	.001	.04	.04

C = Comprehension
P = Phonics
SA = Structural Analysis
SS = Study Skills
OR = Oral Reading
SR = Silent Reading
Lg = Listening
WM = Word Meaning
WI = Word Identification
Ds = Discussion
RA = Reads Aloud
Ls = Listens
Dm = Demonstration
T = Tests
0 = Other

but teacher two and teacher seven demonstrated the greatest proportion of teacher behaviors concerned with comprehension. Comprehension ranked third for teacher two, with a proportion of .12, and second for teacher seven, with a proportion of .27. Oral reading and word meaning accounted for the second largest proportion for the groups, with proportions of .17 and .13 respectively. All teachers, except teacher two, followed this pattern. The areas of structural analysis, study skills, silent reading, word identification, discussion, reads aloud, and other accounted for approximately three to six percent of teacher behaviors. Some variability among teachers was noted within categories. The areas of phonics, listening, listens, and demonstration were rarely observed, and in some cases, not observed at all.

Reading Subskills Emphasized within Each Major Reading Category

Problematic question six asked within each major reading category what types of skills are emphasized. Tables 6 through 10 provide this information for each teacher and for the total group.

Comprehension

Table 6 provides information concerning the skills stressed in the category of comprehension. The greatest proportions of teacher behaviors were concerned with application and assessment of comprehension skills, attaining proportions of .26 and .27

Table 6

Proportion of Teacher Behaviors Concerned with Each Subskill under Comprehension

Teacher	Ap	Ass	Asg	HA	I	Pd	Pp
1	.47	.02	.13	.08	.28	.00	.03
2	.37	.29	.14	.00	.14	.00	.06
3	.15	.31	.17	.11	.08	.00	.17
4	.19	.19	.18	.17	.06	.00	.22
5	.13	.39	.15	.09	.04	.00	.20
6	.12	.56	.06	.01	.04	.03	.18
7	.54	.08	.18	.08	.05	.00	.07
Total group mean	.26	.27	.15	.09	.09	.002	.14

Ap = Application
Ass = Assessment
Asg = Assignment
HA = Helps with Assignment
I = Instruction
Pd = Prediction
Pp = Preparation

respectively. Giving assignments and preparation for comprehension followed with proportions of .15 and .14. Helps with assignment and instruction were observed less, with proportions of .09 each. Prediction was rarely observed at all. Some variability for individual teachers was noted within the subskill comprehension. As an example, teacher one demonstrated a greater proportion of behavior concerned with comprehension instruction, and less in assessment, unlike the other seven teachers.

Phonics

Table 7 provides information concerning the skills stressed in the category of phonics. While the category phonics skills was rarely observed, instances when it was observed revealed that the greatest proportions of teacher behaviors were concerned with application of phonics skills or giving assignments. Again, variability was noted among the seven teachers.

Structural Analysis

Table 8 provides information concerning the skills stressed in the category of structural analysis. The greatest proportion of teacher behaviors was concerned with application of structural analysis skills with a proportion of .65. Giving assignments, helps with assignments, and instruction were fairly evenly distributed with proportions of .11, .13, and .11 respectively. Some variability for individual teachers was noted within subskill

Table 7

Proportion of Teacher Behaviors Concerned with Each Subskill under Phonics

Teacher	Ap	Asg	HA	I
1	.67	.33	.00	.00
2	.00	.00	.00	.00
3	.00	.00	.00	.00
4	.33	.67	.00	.00
5	.80	.07	.13	.00
6	.00	.00	.00	.00
7	.00	.75	.00	.25
Total group mean	.6	.28	.08	.04

Ap = Application
Asg = Assignment
HA = Helps with Assignment
I = Instruction

Table 8

Proportion of Teacher Behaviors Concerned with Each Subskill under Structural Analysis

Teacher	Ap	Asg	HA	I
1	.00	.00	.00	.00
2	.83	.00	.00	.17
3	.00	.31	.69	.00
4	.40	.15	.30	.15
5	.63	.14	.08	.14
6	.74	.10	.00	.16
7	.97	.00	.00	.03
Total group mean	.65	.11	.13	.11

Ap = Application
Asg = Assignment
HA = Helps with Assignment
I = Instruction

categories. As an example, structural analysis was not observed at all for teacher one.

Study Skills

Table 9 provides information concerning the subskills in the category of study skills. The greatest proportions of teacher behaviors were concerned with helps with assignment and application, with proportions of .43 and .33. Giving assignments and instruction were least observed with proportions of .20 and .05 respectively. Much variability for individual teachers was noted with subskill categories. Proportions ranged from 1.00, indicating that all teacher behaviors observed in the study skills category were concerned with a particular subskill, to .00, subskills that were not observed at all. It was noted that instruction in study skills received the lowest proportions for all teachers.

Oral Reading

Table 10 provides information concerning the subskills stressed in the category of oral reading. The greatest proportion of teacher behavior was concerned with listening to oral reading with a proportion of .88. Application and instruction, observed to a lesser degree, attained proportions of .09 and .03 respectively. Only teacher two demonstrated a higher percentage of observed behavior in application of oral reading skills, with a proportion of .51.

Table 9

Proportion of Teacher Behaviors Concerned with Each Subskill under Study Skills

Teacher	Ap	Asg	HA	I
1	.00	1.00	.00	.00
2	.42	.09	.45	.04
3	.00	1.00	.00	.00
4	.57	.29	.00	.14
5	.17	.27	.51	.05
6	.00	.00	.00	.00
7	.00	.00	.00	.00
Total group mean	.33	.20	.43	.05

Ap = Application
Asg = Assignment
HA = Helps with Assignment
I = Instruction

Table 10

Proportion of Teacher Behaviors Concerned with Each Subskill under Oral Reading

Teacher	Ap	I	L
1	.00	.00	1.00
2	.51	.14	.35
3	.05	.03	.92
4	.00	.00	1.00
5	.25	.12	.63
6	.00	.00	1.00
7	.00	.00	1.00
Total group mean	.09	.03	.88

Ap = Application
I = Instruction
L = Listens to

Listening

Table 11 provides information concerning the subskills stressed in the category of listening. The category of listening was observed for only two of the seven teachers. The greatest proportion of teacher behavior was concerned with assessment of listening, with proportions of .71 and 1.00. The other subskill noted was preparation for listening.

Word Meaning

Table 12 provides information concerning the subskills stressed in the category of word meaning. The greatest proportion of teacher behavior was concerned with application of word meanings with a proportion of .59. Instruction in word meanings was observed in the second greatest frequency with a proportion of .27. Giving assignments ranked third with a proportion of .12. Helps with assignments accounted for only two percent of teacher behaviors, not observed at all in three of the seven teachers. Less variability among the teachers was also noted.

Anecdotal Records

Anecdotal records were noted during classroom observations to supplement and/or clarify observations. As an example, teacher behaviors that were not on the observation instrument were noted in anecdotal form. Any other relevant information was also included.

A review of the anecdotal records revealed that most of the notes centered on clarifying non-instructional activities. In

Table 11

Proportion of Teacher Behaviors Concerned with Each Subskill under Listening

Teacher	Ass	Asg	HA	Pp
1	.71	.00	.00	.29
2	.00	.00	.00	.00
3	1.00	.00	.00	.00
4	.00	.00	.00	.00
5	.00	.00	.00	.00
6	.00	.00	.00	.00
7	.00	.00	.00	.00
Total group mean	.74	.00	.00	.26

Ass = Assessment
Asg = Assignment
HA = Helps with Assignment
Pp = Preparation

Table 12

Proportion of Teacher Behaviors Concerned with Each Subskill under Word Meaning

Teacher	Ap	Asg	HA	I
1	.69	.07	.00	.24
2	.71	.03	.00	.26
3	.60	.08	.04	.29
4	.55	.15	.15	.15
5	.42	.15	.03	.40
6	.49	.25	.00	.25
7	.75	.04	.01	.19
Total group mean	.59	.12	.02	.27

Ap = Application
Asg = Assignment
HA = Helps with Assignment
I = Instruction

addition to the non-instructional behaviors included on the observation instrument, other non-instructional activities noted included: checking student papers, filing student papers, reading through text manuals, writing lesson plans, and organizing worksheets.

It should also be noted that only regularly scheduled classroom reading periods were included in the observational data. If reading classes were completely canceled, another observation period was scheduled. Table 13 provides information on the number of times reading classes were canceled during the data collection period. Anecdotal records revealed reasons for canceling classes that included: field trips, assemblies, outside speakers, holiday activities, and once because a special class meeting was held due to problems on the playground.

Summary

Analysis of the observational data collected revealed that there was some variability among teachers in the amount of time scheduled for formal reading instruction. The time allotted ranged from 60 to 85 minutes per day, however, the proportions of the total school day allotted for reading ranged from 17 to 20 percent, which is fairly consistent across teachers.

The data revealed that for individual teachers the proportion of teacher behaviors concerned with actual instruction in reading ranged from .54 to .69 while proportions for non-instructional

Table 13

Number of Times Reading Class was Canceled

Teacher	Times Canceled
1	2
2	3
3	1
4	2
5	0
6	0
7	1

activities ranged from .31 to .46. Both group and individual proportions were consistent.

Reading comprehension, oral reading, and word meaning were the categories accounting for the greatest proportions of teacher behaviors for the group as well as for individuals, with one exception. The categories of phonics, listening, listens, and demonstration were observed rarely, or in some instances, not at all. Some minor variability among teachers was evident in the remaining categories.

Application was the most frequently observed subskill in all categories except oral reading, in which listens to accounted for the greatest proportion. Some minor variability among teachers was noted.

CHAPTER 5

DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

In this chapter the results of the data analysis are discussed. The discussion section centers on an analysis of the results on scheduled time, engaged time, non-instructional behaviors, proportions of behaviors concerned with major reading categories during scheduled time, proportions of behaviors concerned with major reading categories during engaged time, and the types of subskills emphasized in each major reading category. The discussion section is followed by sections on conclusions and implications.

Discussion

The purposes of this study were to identify and describe the frequency of teacher behaviors that occur during classroom reading instruction. The investigation addressed the following problematic questions: (1) How much time is scheduled for formal reading instruction; (2) What proportion of teacher behavior during scheduled reading instructional periods is concerned with actual instruction in reading; (3) What proportion of teacher behavior during scheduled reading instructional periods is concerned with non-instructional activities; (4) What proportions of teacher behaviors during scheduled reading instructional periods are concerned with each of the major reading skill areas; (5) What

proportions of teacher behaviors during actual reading instruction are concerned with each of the major reading skill areas; and (6) Within each major reading category what types of skills are emphasized.

In regard to question one, how much time is scheduled for formal reading instruction, the data indicated that the time scheduled varies somewhat from classroom to classroom. Instructional periods varied from 60 to 85 minutes per day. Interviews with the teachers suggested that teachers appear to have reading periods scheduled by extraneous factors such as coordination with another teacher, coordination with remedial reading, or by the school principal. The proportions of the total school day allotted for reading ranged from 17 to 20 percent, which was fairly consistent across teachers.

In regard to questions two, what proportion of teacher behavior during scheduled reading instructional periods is concerned with actual instruction in reading, and three, what proportion of teacher behavior during scheduled reading instructional periods is concerned with non-instructional activities, there are several characteristics noted. The data collected for this study indicated that approximately two-thirds of teacher behaviors were concerned with actual instruction in reading, while the remaining one-third were concerned with non-instructional activities. A review of the anecdotal records collected during observation suggested that many of the non-

instructional activities were related to the organization and implementation of the reading program. Activities included such things as checking student papers, filing student papers, reading through manuals, writing lesson plans, and organizing worksheets.

It should also be noted that the data collected may not reflect the entire picture since only regularly scheduled classroom reading periods were included in the observations. If reading classes were completely canceled, another observation period was scheduled. Anecdotal records revealed reasons for canceling class that included: field trips, assemblies, outside speakers, holiday activities, and once because a special class meeting was held due to problems on the playground. If this data had been included in observations, the proportion of teacher behaviors concerned with actual instruction in reading would have been significantly lower, while the proportion of teacher behaviors concerned with non-instructional activities would have been significantly higher. However, it was thought that a true picture of what actually goes on during reading instructional periods would be obtained only through observing regular reading classes. Partial classes, those starting late or dismissing early, were included in the data.

The fourth and fifth questions addressed, what proportions of teacher behaviors during scheduled reading instructional periods are concerned with each of the major reading skill areas and what proportions of teacher behaviors during actual reading instruction

are concerned with each of the major reading skill areas, are related. When data were analyzed for both questions, it was noted that the largest proportion of teacher behaviors was concerned with the major skill area of comprehension. The comprehension area accounted for 20 percent of teacher group behaviors during scheduled reading time and 32 percent of teacher behaviors during actual reading instruction. All but two of the individual teachers demonstrated the greatest percentage of actual reading instructional behaviors concerned with comprehension. For teacher two comprehension was ranked third and for teacher seven it was second. However, in comparing the major reading skill areas with the category of non-instruction, all seven of the individual teachers demonstrated a greater overall percentage of behaviors concerned with non-instruction. The proportions of behaviors concerned with each major reading skill area decreased significantly when compared to the entire scheduled instructional period rather than engaged time.

The second major reading skill area stressed appear to be oral reading followed by word meaning, both for the group and for individual teachers. Only teacher two does not fit this pattern.

No consistent pattern among individual teachers emerged for the categories of structural analysis, reads aloud, discussion, word instruction, tests, and other. All were observed, but with irregular frequency and/or inconsistent patterns across individuals. Even when considering group totals, these skill areas account for

only three to six percent of all teacher behaviors. It should be noted that activities under the category, other, included spelling and English skills, such as parts of speech. The categories phonics, listening, listens, and demonstration were rarely observed.

In regard to question six, within each major reading category what types of skills are emphasized, data indicated that under each major reading skill area, the subskill application accounted for the largest proportions of teacher behavior. This would suggest that teachers emphasize application of skills already learned. Only the category oral reading varied, with the subskill listens to accounting for the greatest percentage of teacher behaviors. In the category of comprehension, the subskill assessment accounted for 27 percent of teacher behaviors. Anecdotal records revealed that assessment took the form of questions over material read. Oral reading consisted mainly of round-robin reading where children took turns reading a selection while the rest of the class followed along. In all the major reading categories, the subskills instruction, gives assignment, and helps with assignment accounted for only 5 to 15 percent of teacher behaviors.

While Durkin (1978-79) reported results in percents of time for each area observed and this study reported results as frequency counts and proportions of behaviors observed, several comparisons may be made. Durkin reported that ten percent of the time observed was spent on non-instructional activities, mainly checking papers,

and an additional ten percent was spent on transition. Thus Durkin found a total of 20 percent of the time was spent on non-instructional activities, while this study reported over 30 percent of teacher behaviors observed were concerned with non-instructional activities. Both studies concluded that a large proportion of teacher time is spent on non-instruction.

Durkin's study focused on determining the amount of time spent on comprehension instruction. The results suggested that less than one percent of the time was spent on comprehension instruction, while nearly 18 percent was spent on comprehension assessment. These results are comparable to the results obtained in this study. While the area of comprehension accounted for approximately 20 percent of the teacher behaviors observed, further analysis revealed that of that proportion, only nine percent of the behaviors were concerned with comprehension-instruction, while 27 percent were concerned with comprehension-assessment. The results reported by Durkin are generally consistent with the results cited in this study.

Conclusions

A review of the data collected suggests the following specific conclusions:

(1) While the amount of time scheduled for reading varies from teacher to teacher, the proportion of the total school day is quite consistent. The scheduling of reading instructional periods is affected by extraneous considerations such as coordination with another teacher or recommendation of the school principal.

(2) Approximately 60 percent of teacher behaviors were concerned with actual instruction in reading, while over 30 percent of teacher behaviors were concerned with non-instructional activities. Non-instructional activities were centered around organization and management of the reading program, mainly paperwork.

(3) Comprehension, oral reading, and word meaning were the only major reading categories observed with any consistency. Other categories of reading instruction were either not observed with any regularity of frequency, or varied from teacher to teacher. Much of the variability may have been related to the small number of instances observed rather than any great differences among teachers.

(4) Comprehension activities consisted mainly of questioning students over material read.

(5) Oral reading practice consisted mainly of round-robin reading where children took turns reading a selection while the rest of the class followed along.

(6) During actual instructional time, the majority of teacher behaviors were concerned with having students apply skills that they already have. Little direct instruction on new skills or concepts was observed.

(7) The findings of this study are generally consistent with the observational study reported by Durkin (1978-79).

Implications

Throughout the literature review authors and researchers have consistently emphasized the need for additional research. The results of this study suggest that much more needs to be learned about classroom reading programs. Future research should address the following questions and problems:

(1) Since a large proportion of teacher behavior was concerned with having students apply skills previously taught, it is important to determine whether this is true at lower grade levels and whether the skills being applied have indeed been taught at some point. Additional descriptive studies should be undertaken and expanded to include all grade levels so that a clearer picture of what is "normal" for each grade level may be determined.

(2) Variance in the proportion of teacher behaviors concerned with specific skill areas within scheduled time serves to emphasize the need to know what influences teachers to do what they do. All teachers in the sample taught fourth grade. Only two different basal readers were employed. What accounts for variance among teachers and what influenced them to do what they do is unknown.

(3) In view of the fact that a large percentage of teacher behaviors was concerned with non-instructional activities, it becomes important to determine what individual and groups of children are doing during that time.

(4) Previous studies have suggested that direct instruction is important. Since little direct instruction was observed, the question was raised as to whether increasing the amount of direct academic instruction would result in improved achievement.

It is only after descriptive studies have revealed a clear picture of current practices in reading, that the next step in improving reading research and instruction can be taken. The second step involves conducting process-product studies to determine whether the specific teacher behaviors identified are associated with variance in student achievement. Research addressing the issues cited above is critical for the improvement of classroom reading instruction.

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APPENDICES

Appendix A

Teacher Observation Instrument

School:_____ Teacher:_____ Date:_____ Time:_____

TIME
Comprehension
Application
Assessment
Assignment
Helps with Assignment
Instruction
Prediction
Preparation
Phonics
Application
Assignment
Helps with Assignment
Instruction
Structural Analysis
Application
Assignment
Helps with Assignment
Instruction
Study Skills
Application
Assignment
Helps with Assignment
Instruction
Oral Reading
Application
Instruction
Listens to
Silent Reading (children)
Listening
Assessment
Assignment
Helps with Assignment
Preparation
Word Meaning
Application
Assignment
Helps with Assignment
Instruction
Word Identification
Discussion (teacher directed)
Reads Aloud
Listens
Demonstration
Tests
Non-Instruction
Checks Assignment
Collects Materials
Distributes Materials
Management
Waits
Listens
Transition

Appendix B

Teacher Interview

School _____

Teacher _____

Years of College or Degrees Held _____

Years of Teaching Experience _____

Scheduled Reading Period _____

Number of Groups _____

Reading Grade Level of Groups _____

Basal Series Used _____

Book or Levels Used _____

Supplemental Materials Used _____

_____

_____

Other Related Language Arts Periods _____

_____

_____

Observation Dates _____

_____

_____

Additional Notes _____

_____

_____

_____

_____

Appendix C

Observation Schedule

	Mon.	Tues.	Wed.	Thurs.	Fri.
1					T7
Mar. 16-20				T2	
2	T6	T7	T3	T5	T4
Mar. 23-27			T1		
3			T5	T4	
Mar. 30-Apr. 3	T1	T2			
4	T6	T3	T7	T5	T4
Apr. 6-10	T2	T1			T2
5	T3	T6	T5	T6	
Apr. 13-17					
6	T3	T4	T7		T6
Apr. 20-24			T1	T1	
7	T7	T3	T7	T6	
Apr. 27-May 1		T2			T2
8	T4	T5	T6	T4	T3
May 4-8	T2				
9	T5	T7	T4	T3	T5
May 11-15	T1	T2			T1

T = Teacher