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ABSTRACT This report identifies the school variables (facilities, materials, equipment, class size, time, and scheduling) and teacher competencies that contribute to achievement in the basic skills. Gleaned from a literature review, the opinions of experts, research data, and identified student outcomes, the materials that accomplish the two goals are organized in sections devoted to school settings (school, class, program, teacher, and pupil characteristics and out-of-school conditions related to learning) and the basic skills areas of speaking, listening, writing, spelling, and handwriting. Each section focuses on a language arts area and contains a discussion of teaching competencies, a table of cognitive-based and performance-based criterion indicators of teacher effectiveness, and a list of references. (RL)

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RESEARCH BULLETIN

**INDICATORS FOR LEARNING
AND
TEACHER COMPETENCIES IN THE BASIC SKILLS
SPEAKING - WRITING - SPELLING - HANDWRITING**

Volume 13 Fall, 1979 Number 2

by

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FOREWORD

It is difficult to stay on top of current research - whatever your field of endeavor may be. The field of education is no exception, and research on reading, language arts, and mathematics in particular is overwhelming. In this Bulletin, the authors have not only searched out and selected relevant research, but they have organized and interpreted it for the administrator, supervisor, and teacher interacting with students every day.

Drs. Bill Powell and Evelyn Wenzel are to be congratulated for their fine work. It is readable, and more important, provides much food for thought. On behalf of FERDC I congratulate them for a job well done.

Bill Breivogel, Guest Editor

PREFACE

Concern for the improvement of basic skills in the State of Florida resulted in the formation of the UF-DOE Basic Skills Project. Financial support for the work was given by the Board of Regents of the State University System through Service Through Application of Research (STAR) program. The State Department of Education provided human resources through committees of consultants. Mrs. Ada P. Puryear, Administrator, Early Childhood and Elementary Education, served as the DOE monitor during the progress of the study.

Evelyn Wenzel's contribution is the section which identifies the teacher competencies in the areas of language arts: listening, speaking, writing, spelling, and handwriting. Elroy J. Bolduc presents the basic teacher competencies for the teaching of mathematics. William R. Powell served as the project director and wrote the portion on reading and the part of the report on indicators of school setting variables. Consultative contributions were made by many of our colleagues on campus. Susan Lubet served as a graduate assistant during part of the study.

Jerri Anne Phipps served as project secretary and typed and re-typed the many drafts while the project was in progress and prepared the final report. The interest and effort of all these individuals were definitely appreciated.

William R. Powell

OVERVIEW

INDICATORS OF TEACHER EFFECTIVENESS IN THE BASIC SKILLS

This report has two purposes: (1) to identify the school setting variables (e. g., facilities, materials, equipment, class size, time schedules, etc.) which contribute to achievement in the basic skills; and (2) to identify the teacher competencies which contribute to achievement in the basic skills.

The search for indicators of competence was accomplished by literature review, expert opinion, research data, and identified student outcomes. The objective was to identify those observable classroom behaviors whose presence or absence are likely to affect student performance. Should further evidence support the competencies herein identified, these performances of a teacher can serve as indicators of the effectiveness of that teacher in specific basic skill areas.

In this monograph, two types of competency indicators are identified: (1) cognitive-based criteria; and (2) performance-based criteria. Cognitive-based criteria are the knowledge base, i. e., those facts which must be learned and stored in the memory for use. Performance-based criteria are techniques and processes which must apply and utilize the cognitive items in the context of the classroom. It is conceivable that a teacher could know a set of criteria for instructional placement, yet not know what to do with that criteria in grouping children, making individual assessments, or determining prescription for proper placement. Performance, then, is concerned with the handling of the cognitive systems in the classroom. A teacher cannot teach what she or he does not know, but a teacher can know and not use the knowledge in teaching. The task is to get both systems - cognitive and performance - working together. The consequence of such a fusion of systems will be sustained growth in the basic skills.

In each of the basic skills areas that follow, specific instructional competencies are identified and stated. These specific competencies are grouped, for convenience, by a more general competency category. Five general behaviors were used throughout this report: (1) diagnosis and prescription; (2) organization and management; (3) instruction; (4) growth patterns; and (5) evaluation. Each general category embraces several specific competencies which are listed task by task by the source of knowledge which produces the parallel performance standard.

Tables 1-7 itemize these teacher competencies. These combined indicators, if possessed by the teacher, represent a set of specific competencies considered to characterize an effective teacher of the basic skills.

INDICATORS RELATED TO LEARNING IN SCHOOL SETTINGS

Society has created institutions called schools for developing efficient and effective contexts for learning. Children and adults need to know how to operate in a manner acceptable to others in society. People need to develop specified skills and to know selected information and concepts to perform appropriately in defined social contexts. Schools are primary contributors in that process.

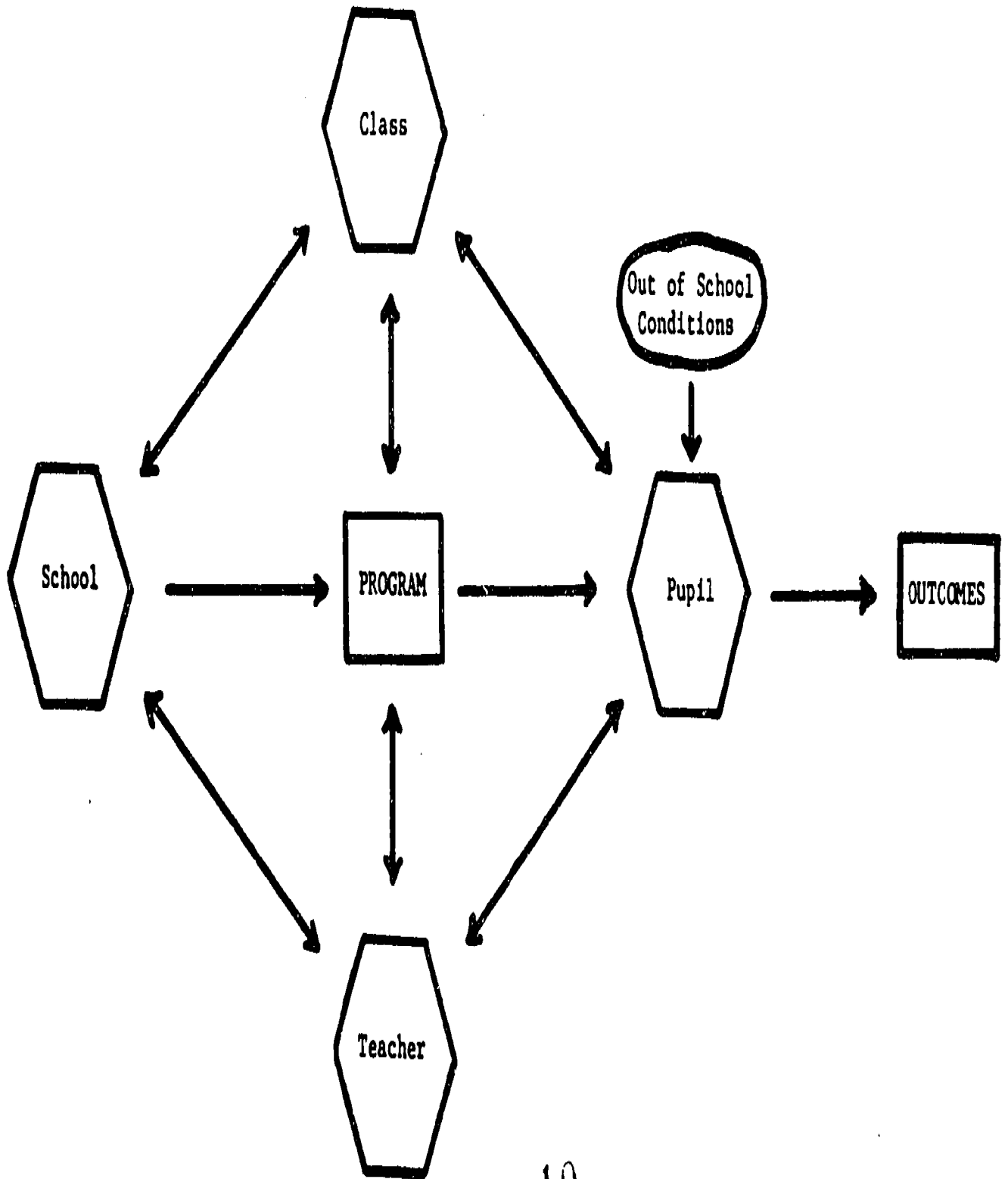
Contexts for learning should be thought of not simply as the physical setting - buildings, space, rooms, surroundings - nor in combination of people (principals, teachers, aides). The settings for learning are constituted by what the pupils are doing and where, when, how, why, and with whom they are doing it. In Figure 1, these different contextual variables and their inter-relationships are illustrated. Each variable provides indicators for pupil performance. The quality of interaction among variables gives strength and vitality to the learning opportunities. The contextual variables which are known to affect learning in the basic skills are the focus here. They are: (1) school characteristics, (2) class characteristics, (3) program characteristics, (4) teacher characteristics, (5) pupil characteristics, and (6) out-of-school conditions. The outcomes are the observed and measured pupil performance in the basic skills - reading, language arts, and mathematics.

Several studies (see references) in the past few years have identified several significant variables affecting learning. The current emphasis on literacy and accountability has contributed to fostering such studies. However, the evidence to date must be viewed as tentative and limited. The instruments presently available for controlled contextual observation as yet are not strong enough for wide and extensive generalizing of the results. There is enough concurrence among studies for some indicators to begin to emerge. It is those items that are presented and discussed in this section of this report, although caution must be maintained in their interpretation.

School Characteristics

Pupil achievement is higher when the classroom teacher perceives that they have administrative support from the principal and the central office staff, particularly the principal. Support for and leadership in providing opportunities for staff development and provide work-space for academic subjects are positive forces of this leadership.

Other socio-contextual variables affecting the school district are the percent of voting registrants in that district and the average



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FIGURE 1. Contextual Variables for Basic Skill Achievement

income per family unit in the district where the school resides. Both of these items have overtones of literacy attainment, interest in societal affairs, and socio-economic well being. Table 1 lists these indicators which facilitate higher achievement at the school level.

TABLE 1. School Indicators

Characteristics
Perceived administrative leadership and support
Staff development and in-service activity
Percent of space used for academics
Percent of voting registrants in school district
Average income of school district

The factor of size (community, school district, or school population) is neither a positive nor a negative force on basic skill achievement. The type of physical facilities (old, remodeled, new) apparently also has a neutral effect on pupil outcome as does the type of organizational patterns within the school. Size, facilities, and organizational strategies, in and of themselves, are not prime contributors to measured pupil performance.

However, the density of district population (urbanness), the number of special programs in the school, and the percent of black membership in both the school and community are indicators of schools with lowered pupil achievement. Socio-economic factors and society's attempt to off-set those factors, i.e., special programs are created and funded for the handicapped, compensatory, etc. are reflected in these findings.

Class Characteristics

Higher pupil achievement at the class level within a school is associated with the quality of the classroom atmosphere, i.e., a sense

of order and purpose, positive relationships, and pleasure in learning. The level of classroom control maintained by the teacher is a contributing factor. Surprisingly, perhaps to some, higher achievement, in several studies, is associated with less grouping within the class limits. However, this latter indicator may be a proxy variable for direct instruction time. The greater the teacher's time is spread across several groups, the less time is available by the teacher with any particular group. However, less grouping does not mean no grouping. What may be suggested in the data is that in the schools studied there may have been too many groups used in recent attempts to individualize instruction. Grouping is directly related to classroom control factors and direct instructional time from the teacher.

The presence of minority groups present in the classroom is a positive influence on outcomes. In school systems where there are numerous schools of varying size, the evidence would suggest that black youngsters achieve better in the smaller schools with smaller classes. Table 2 provides the factors positively related to better achievement at the classroom level.

TABLE 2. Class Indicators

Characteristics
Classroom atmosphere
Level of classroom control
Grouping not overextended within the class
Minority groups present
Black youngsters in smaller school environments

The size of a given class shows ambiguous results in achievement. However, a class size of thirty-three or less pupils has indicated a positive trend towards higher achievement patterns. Classroom enrollment in the studies reviewed may have been fairly uniform in size and, if so, then class size would not have shown positive relationships.

Achievement grouping shows an unclear pattern of relationships to pupil achievement. This finding is consistent with other studies through the years. Ability grouping or power grouping, per se, is not clearly and consistently associated with higher pupil performance. One factor, however, has shown a negative relationship to achievement - that of pupil transfer rate. Evidently, some stability in a class setting has its contributing qualities.

Program Characteristics

A program with an emphasis on the basic skills brings the corresponding result of higher achievement in those areas. It should, however, be a balanced total program not limited solely to basic skill subjects. Programs with clear objectives with emphasis on cognitive development that are designed with concern for scope and sequence are clearly associated with higher pupil performance.

TABLE 3. Program Indicators

Characteristics
Balanced curriculum program
Basic skill emphasis
Cognitive development emphasized
Stated objectives of desired behavior
A scope and sequence in the basic skill areas
Adequate material and equipment support
Total reading activity
More silent reading than oral
A system of instruction
Teacher training in the system

The necessary materials and equipment for program operation are necessary. There is some hint in the literature that too much material can be a detractor as well as too little resources. Overstimulation can be a distractor in learning.

In reading instruction, the data suggest that the total reading activities, not just phonics and other learning to read components, is a significant factor in reading achievement. Also, the amount of silent reading time is positively related to higher performance. Conversely, oral reading activities, if extensive, is not a facilitating force in obtaining higher achievement in reading.

What is important in basic skill achievement is that some system of instruction is clearly specified and followed. Further, teachers need to have training in that system - not generally, but specifically. The implication of such a finding is obvious: while colleges educate teachers for any system of instruction, each employing school system must additionally train the teacher in the specifics for their particular program.

The impact of pre-school education programs on basic skills achievement is not yet apparent. This is probably due to the fact that such programs are relatively new and time for their contribution has not to date made its impact. Nevertheless the trend line is positive in this regard.

Teacher Characteristics

The most recent finding about indicators of teacher competencies is that effective teaching practices will differ by subject matter and grade level taught. These findings mean that teachers use different techniques, as well as content, in different subjects like reading and mathematics. Not only do the techniques and content vary, but so does the grade level. Second grade teachers will have different instructional strategies than fifth or sixth grade teachers. The implication for the preparation of teachers is clear that the objectives for training primary and intermediate grade teachers may need to be different.

Interaction patterns between the teacher and pupils follow a similar pattern as subject and grade level. The presentation pattern, the type and frequency of teacher questions, the teacher's reaction to pupil responses, the nature of feedback to pupils, and the degree of teacher circulation are positive influence on pupil performance. The pattern of these techniques will vary when the grade level and subject matter varies.

Teacher characteristics such as teacher enthusiasm, realistically high expectations, teacher effort, and teacher morale are indicators of high achievement. Basically, a teacher who has a desire to teach and does, gets results. Other external teacher factors are experience and certification. Certification is likely to reflect the number of years of training, but the evidence would suggest that where that training is obtained makes a difference. Teachers from rated college programs produce better results. The salary level of the school staff, principals and teachers, have long been a positive indicator of teacher performance.

TABLE 4. Teacher Indicators

Subject matter taught
Grade level taught
Interactive strategies (discussing, questions, feedback, etc.)
Teacher enthusiasm
High expectations
Teacher effort
Teacher morale
Experience
Certification
Rate college training
Salaries of teachers and principles

Factors such as the percent of married teachers, the percent of black teachers and the use of teacher aides are apparently negligible.

However, if the teacher aide qualified as certified personnel, then that indicator is significantly related to pupil achievement.

Pupil Characteristics

Direct instructional time is a highly significant indicator identified in the recent literature. Instructional time and student achievement are positively related. The amount of time allocated to a skill area appears to be a contributor to the amount learned. A distinction, however, needs to be made between allocated time and time on task (engaged time). It is time on task that is the critical factor.

Engaged time has a quality of student attention. The student must be involved with active attention in the task at hand. The task at hand may be interacting either with the teacher or the learning materials. The teacher directs the process. Whether a student is in a group or doing seatwork is not the basic criterion. What is important is whether the teaching practice directs, guides, and engages the pupil.

The evaluation of pupil progress is an indicator of pupil performance. Teachers, to provide direct instruction, need diagnostic evaluation data, process evaluation information, and product evaluation data. What the pupils need to have is feedback from these evaluations - the sooner, the better.

TABLE 5. Pupil Indicators

Characteristics
Direct instructional time
Time on skill area
Time on task
Evaluation of pupil progress with feedback
Attendance
Female

Females do better in the basic skill subjects than males. This is an expected pattern. Attendance is a positive influence on achievement, although it may be a reflection of allocated learning time. In essence, what the research on pupil characteristics shows is that direct engaged learning time with reinforcement signals is significantly related to pupil achievement. In general, more time yields more learning.

Out-of-School Conditions

The parent's educational level is the best single indicator of a covert socio-economic variable which influences pupil performance. Other factors which show a positive relationship to achievement are the parent's income, occupation, and aspiration level for their children. The home situation, such as, the number living at the home, when the adults are home, the language used in the home, etc., have also facilitating influences on a pupil's achievement.

TABLE 6. Out-of-School Indicators

Characteristics
Parent's educational level of attainment
Parent's occupation
Parent's income
Parent aspiration level for child
Home situation (language, number in home space, when adults are home, etc.)

From the preceding discussion, it is clear that several interacting socio-contextual variables are significantly related to pupil performance in the basic skills. No one set of characteristics alone are great enough to predict pupil achievement. It takes a combination of forces. What a child brings to school and what the school brings to the child are all part of the complete context for learning.

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SPEAKING: TEACHER COMPETENCIES

Competencies for Teaching of Speaking

Growth Patterns. Information about how language develops in children from birth through the school years has been available for teachers for a number of years. Results of early studies of language development were incorporated into the content of the major language arts textbooks published and widely used in the 1950's (4, 11, 21), in each of which at least one chapter was devoted to language development. In the next decade space devoted to this topic grew smaller, if not eliminated completely. The reason is somewhat difficult to understand, but it may be explained, in part perhaps, by the shift in interest from the child to the language, for in this period information on linguistics dominated the publications scene.

In the early 1960's appeared the reports on studies of children's language by Loban (15) and Strickland (22), pioneer efforts because the language samples were analyzed by linguistic techniques more sophisticated than those available to the earlier researchers. The flood of ensuing research by psycholinguists and sociolinguists on language acquisition is bringing back into textbooks of the 1970's information about children's language. These more precisely obtained findings, however, have not yet been interpreted and tested for their relevance to curriculum building and teaching strategies in oral language (6:48-59).

Teachers will probably find most helpful information about children's language that incorporates findings from both earlier and present periods of research. Dallman (5) devotes considerable space to overall development as well as to language development of primary and intermediate grade children. Donoghue (7) provides the same information at each of eight age levels. Burns and Broman (3) discuss language acquisition from birth. On a more sophisticated level Kean (12) devotes a full chapter to a detailed description of the stages by which children acquire language from birth through elementary school years. Fisher (9) also devotes a chapter to language acquisition that concludes with a helpful section on implications for teaching. Lundsteen (17) relates language and concept acquisition and provides many examples of classroom behavior and teaching suggestions that help to clarify the content.

Most textbooks, however, suggest approaches and activities appropriate for younger children separately from those for older ones. Insofar as these approaches are based in accurate knowledge of children's language development, teachers are receiving the benefit of the information currently available and tested.

Diagnosis and Prescription. The literature provides a fair amount of help for teachers who wish to assess the results of their teaching of oral language skills. Much of such help is in the form of checklists that may be used for instructional as well as diagnostic purposes.

On the various forms of functional activities, conversation, discussion, oral reporting, and storytelling, Burns (2) provides such checklists. Allen's "Summary of Skills and Abilities for Sharing Ideas Orally" (1) can be used as a checklist for diagnostic purposes. Burns (2) provides a good rating scale for choral speaking.

Speech qualities and problems of pronunciation, enunciation, and articulation have been identified by speech specialists and made available to teachers. Burns (2) lists common problems of pronunciation and articulation. Donoghue (7) provides in chart form, a profile of general speech faults, a listing of frequently mispronounced words, and teacher and student self-evaluation checklists. She calls attention, also, to speech disorders that require the attention of a speech therapist.

Diagnosis of usage and dialect problems is a major concern for most teachers today. Lists of usage errors to eliminate are provided by Burns (2), Donoghue (7), Kean (12), and Green and Petty (10). Donoghue provides a useful chart for diagnosis of dialect interference.

Organization. Wide variation in all aspects of language development among children in any elementary classroom makes it necessary for teachers to organize their classrooms and their instruction to meet the needs of individual children. Organizing for such purposes is one of the most frustrating and challenging of a teacher's responsibilities. Donoghue (7) provides a chart of twenty-seven different types of language-related problems and, for each, a suggestion for adapting instruction and material for the needs of children with such problems. Burns and Broman (3) suggest ways of working with children who need corrective instruction, for those who are gifted, who have dialect problems or speech impairments. They also provide alternatives to the self-contained classroom organization: totally or partially individualized, various kinds of grouping, graded and ungraded, and team teaching plans. Savage (20) points up the importance of small group interaction for developing oral language skills and includes teaching suggestions for using small groups.

Regardless of the type of organization, however, teachers must be knowledgeable about providing a good classroom environment for oral language development. Lundsteen (17) suggests three levels of strategy for providing such an environment: teacher structured, children given choices, and child structured. She cautions against the

traditional goal of the "silent classroom" and charges teachers with the responsibility of legalizing talking when oral language development is a goal of first priority. Klein (13) devotes a chapter to "Designing a Talk Environment" in which he shows how a teacher can set up classrooms with "different settings with different audiences, and with different subjects and purposes available and desirable for potential talkers" (13:39).

Instruction. Competency in teaching oral language requires knowledge and performance capabilities in areas of English language, usage and dialect, vocabulary, speech, and both interpretive and functional language activities. Knowledge about the development and present state of the English language is basic to teaching all of these areas of oral language. Such knowledge is not for the purpose of teaching it to children but to help teachers teach children more accurately and interestingly about their language. Much information in the form of a brief history of English and of its basic characteristics is available in the literature. (12, 9, 7, 20, 3) The relevance of the history and characteristics of language to teaching children is pointed up by the inclusion of many activities and teaching suggestions. Fisher (9), for example, provides examples of Old, Middle, and Renaissance English, and provides a chart that shows in parallel columns, dates, historical events, and their influence on language from 55BC to 1970's AD. Donoghue (7) suggests instructional activities related to the history of English. Burns and Broman (3) list topics suitable for study in primary and intermediate years and provide samples of task cards and lesson plans on language study. Probably the most useful application of the study of language history is to interest children in word origins. Savage (20), Donoghue (7) and Petty (19) provide many ideas, suggestions for activities, and teaching plans for this purpose.

Knowledge of the grammars of English is essential, also, not for the purpose of teaching to children, but to enable teachers to help children to use language more effectively. Kean (12), Petty (19), Savage (20), Lundsteen (17), Fisher (9) and Burns and Broman (3) all provide descriptions in varying amounts of detail of traditional, structural and transformational grammars. In addition, all provide suggestions for making grammar teaching functional, i.e. to help children handle their language more effectively. Lundsteen's (17) point of view about teaching grammar is particularly worth noting.

A knowledge of present-day English is needed for teaching usage. Teachers have long been identified with a conservative point of view concerning identifying and correcting children's language (10:31-33). Most material on usage provides lists of usage items that should be corrected; of those, once corrected, that now are generally acceptable; and of those that should receive attention only when children have

need for formal types of speaking experiences. (3, 12, 19, 20)

Dealing with usage problems requires that teachers have up-dated information in dialect information readily available in all of the literature today. Particularly helpful for teachers are the suggestions provided by Petty (19), Donoghue (7), Savage (20), and May (18). Of special interest are Allen's application of a teacher's knowledge of dialect and usage to the recording of stories dictated by children (1); and Kean's "Attitude Toward Language Test" which provides teachers with information about their own placement on a continuum from traditional to modern linguistic orientation to language (12).

Closely related to usage and dialect instruction are problems of working with bilingual children. Suggestions for such instruction are available in Kean (12), Green and Petty (10), and Donoghue (7). Donoghue, for example, lists ten characteristics of instruction that follows guidelines for ESOL (English for Speakers of Other Languages) programs, and provides activities in keeping with these guidelines.

Building vocabularies is an important aspect of instruction in oral language. Donoghue (7), Petty (10), Savage (20) provide long lists of things to do to interest children in words. Allen's chapter (1) on extending vocabularies is organized by linguistic concepts and under each is provided a number of suggestions for working with children. Word meanings and attendant complications (semantics) are interestingly discussed and appropriate teaching strategies are presented by May (18), Kean (12), Savage (20), and Donoghue (7). The dictionary is often a misunderstood, misused, and inaccurately taught tool. To update themselves on the nature of the modern dictionary, one uses suitable for elementary aged children, and on interesting ways to build skills, teachers will find The Dictionary and the Language (16) a useful small volume. A chapter on lexicography in Burns and Broman (3) provides similar information and lists twenty dictionaries suitable for children at different ages. Kean (12) discusses dictionaries and provides a few ideas for using them.

Providing experiences in interpretive and functional oral language is the heart of the oral language program. Every language arts textbook gives attention to the interpretive arts of role-playing, dramatization, storytelling, choral speaking, and puppetry; and to the functional forms of discussion and reporting. There are in addition, the simpler more specific skills needed for conversation, telephoning, interviewing, announcing, giving directions, conducting meetings, and telling jokes, etc. Some sources provide especially interesting or in-depth information and suggestions. Lundsteen (17), for example, devotes a whole chapter to discussion that offers a real challenge to teachers. She suggests, for example, topics and situations out of which discussion can develop and from which children may learn a

variety of skills. May (18) gives special attention to group member roles and problem solving. Dallman (5) has a thorough treatment of how to conduct and use panel discussions for various purposes.

Self-expressive or spontaneous unrehearsed speaking is essential for all later oral language performance. Lundsteen (17), and Petty (19) have helpful suggestions for such activities for teachers of younger children. Dallman (5) provides detailed help for storytelling and puppetry; Donoghue (7) lists sequential steps for role-playing. Dramatization - from pantomime to improvisation - is treated at length in most of the literature. Donoghue (7) devotes a chapter to it and provides very specific directions helpful to inexperienced teachers. Allen (1), Fisher (9), Savage (20), and Lundsteen (17) all suggest a sequence of experiences beginning with body movement, that contribute to children's creative development. Fisher (9) provides an interesting discussion of the values inherent in dramatic activities that justify their high priority status in the oral language curriculum.

The contribution that literature makes to the oral language curriculum is repeatedly stressed. Literature provides for children a unique experience with language as well as unlimited opportunities for participation. Lundsteen (17) not only has a chapter on literature but suggests the use of literature in connection with many oral language activities. Fisher (9) provides help for selecting books for a "language-based language arts program". Under language qualities, such as repetition and metaphorical language, she lists books that illustrate these qualities. She suggests also, oral language activities that can accompany the reading of books. Two specialized small books provide a wealth of suggestions for teachers interested in using literature in their oral language programs (23, 24).

Evaluation. Loban (14) found no standardized test adequate to measure children's oral language. He lists goals that test creators would need to consider in constructing such tests. This listing would be helpful for teachers in evaluating programs and individual students. Language development tests described by Fagan (8) are useful as research tools rather than for teacher use.

Probably the best available help for teachers in evaluating oral language are the goals listed or checklists provided for the various oral language areas. Savage (20) for example, at the end of his chapter on oral language provides "A checklist for evaluating oral language" and suggests using a tape recorder to assess the items listed. After discussing each topic - dramatization, interviewing, telephoning, etc. - Donoghue (7) lists questions to use in evaluating performance. Lundsteen (17) suggests several ways to evaluate and help children to evaluate discussion skills. Allen's

(1) summaries at ends of chapters on "Sharing Ideas Orally" and "Discussing and Conversing" can be used as checklists for evaluation of these areas. Lists cited under Diagnosis and Prescription can be used by teachers for evaluation as well.

Criterion Indicators for the Teaching of Listening

Table 7 has a listing of the eight indicators of teaching effectiveness for a classroom teacher of speaking. These are divided into two types of behavioral statements. In the right column will appear the cognitive-based criteria. These are the specific items of knowledge required of the teacher. The left-hand column presents the performance-based criteria for teaching speaking. These items represent the methods or techniques that must be used by the teacher to affect pupil speaking performance. The first column represents the extent of the teacher's sources of knowledge for teaching speaking. The second column represents the observable application of that knowledge. Both kinds of behavior are necessary.

TABLE 7. SPEAKING: TEACHER COMPETENCIES

Know (Cognitive)	Can Do (Performance)
DIAGNOSIS AND PRESCRIPTION	
<p>1. Skills needed for effective and accurate production of oral language for varied contexts, audiences, and purposes</p>	<p>1. - Evaluate students' performance on <u>functional</u> speaking skills: conversation, discussion, reporting, telephoning, interviewing, announcing, explaining, giving directions, and conducting meetings</p> <p>- Evaluate students' speech for adequate articulation, enunciation and pronunciation, and for existence of speech disorders</p> <p>- Plan lessons to teach functional speaking skills and accurate speech production; refer students with speech disorders to speech specialists</p>
<p>2. Nature of language variation:</p> <ul style="list-style-type: none"> - regional differences in general, and specific characteristics of local language varieties - differences due to bilingual and bidialectal backgrounds in general, and specific characteristics of local ethnic varieties 	<p>2. - Evaluate oral language of students with respect to their use of standard and non-standard English</p> <p>- Plan lessons to teach acceptable usage and English as a second language</p>
ORGANIZATION AND MANAGEMENT	
<p>3. Nature of an environment that provides optimal conditions for oral language development</p>	<p>3. Provide flexibility in room arrangement and in scheduling instructional time in order for students to have opportunities to talk spontaneously with each other, to interact in small groups, and to speak to large groups</p>

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TABLE 7. SPEAKING: TEACHER COMPETENCIES cont.

Know (Cognitive)	Can Do (Performance)
INSTRUCTION	
<p>4. - Historical development of the English language, particularly with respect to language change</p> <ul style="list-style-type: none"> - Principles basic to construction and use of modern dictionaries - Three grammars of English: traditional, structural, transformational <ul style="list-style-type: none"> - general characteristics of two - specific characteristics of one 	<p>4. Capitalize on opportunities to:</p> <ul style="list-style-type: none"> - build vocabulary by interesting students in word origins, structures and meanings - interest younger children in exploring dictionaries and older ones in using them efficiently for a variety of purposes - encourage experimentation with word arrangements that move students toward increasing syntactic maturity
<p>5. Nature and role of expressive oral language and strategies for providing opportunities for students to experience it</p>	<p>5. Provide opportunities for spontaneous talk, role playing, creative dramatics, storytelling, interpretive oral reading, and choral speaking</p>
<p>6. - Body of literature appropriate for a wide range of ages and interests, and suitable for reading aloud</p> <ul style="list-style-type: none"> - Interpretive oral reading techniques and accompanying strategies that provide a rich language experience for students 	<p>6. - Read aloud regularly to students from books selected for appeal to a wide range of interests and for demonstrating a variety of writing styles</p>
EVALUATION	
<p>7. Standardized and informal techniques for evaluating oral language skills</p>	<p>7. Use data from testing to plan instructional content and strategies</p>

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TABLE 7. SPEAKING: TEACHER COMPETENCIES cont.

Know (Cognitive)	Can Do (Performance)
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GROWTH PATTERNS

8. Processes by which children develop in ability to acquire, understand, and use language from infancy through preadolescence (sound production, words, sentences)

8. - Provide oral language activities appropriate for the developmental levels of children
- Evaluate performance by criteria appropriate for individual maturity levels

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WRITING: TEACHER COMPETENCIES

Competencies for Teaching of Writing

Growth Patterns. In order to confer with students about their writing, and to plan instruction for groups and individuals, teachers will find it helpful to know what kinds of compositions children write in lower, intermediate, and upper grades. Such information has been compiled from samples of children's writing. Burgess (2) uses a number of writing samples from each of three British children, aged 7, 9, and 14 years to draw conclusions about the characteristics of their writing. Lundsteen (15) does the same for American children, starting with a story dictated by preschool and first grade children, and continuing with written compositions from grades three through six. Golub (8) includes two samples from each of six grade levels of compositions in children's own handwriting, and discusses characteristics at each level with particular reference to problems teachers may face in responding to the writing.

Diagnosis and Prescription. Knowing what to look for (diagnosis) is essential if teachers are expected to plan to meet specific needs (prescription). Some knowledge of modern grammar is essential if teachers are to become competent diagnosticians of children's writing. Such knowledge need not be extensive, but should include general familiarity with the distinguishing features of traditional, structural, and transformational grammars, and more detailed knowledge of one of these. It is hard to find sources that provide enough, without too much, information on this subject. Malmstron's (16) "primer" for language arts teachers is reasonably helpful. Lundsteen (15) and Savage (21) have briefer explanations and more helpful applications. Walsh's Plain English Handbook (22) is an excellent source, handily indexed and simply written.

Knowledge of specific writing skills common to all writing, and of the mechanics, or conventions of writing is also essential if teachers are to diagnose children's needs. Green and Petty (11), and Petty (20) have helpful lists of skills divided by grade levels, as well as forms useful for record keeping. Burns (3) has similar listings along with helpful instructional procedures. Many studies have pointed up the conservative expectations of teachers regarding the observance of writing conventions. It is important, therefore, that they have access to current information about alternative ways of abbreviating names of states, of writing dates, and of punctuating, for example.

Composing skills, or those skills specific to various writing forms--stories, poems, reports, articles, advertisements, etc.,--are

more prominently detailed in current literature on composition than have been previously available. Fisher (7), Burns (3), Lundsteen (15) and Savage (21) have helpful information about such skills. They provide teachers with qualities to look for in both creative and expository writing of various kinds, along with many suggestions for ways to meet needs so identified.

Organization and Management. A pervasive problem for all teachers is organizing instruction in such a way that maximum attention can be given to meeting children's needs in both group and individual sessions. Research by Graves (9) indicates the need for teachers to use both formal and informal strategies in teaching composition. Such settings are described in his research report. The individual conference to discuss their writing with children is generally recommended. Graves (10) gives a detailed account of how to use such conferences. Lundsteen (15) provides a schedule for a "writing day" that includes the individual conference and helpful information about conducting it.

Instruction. Children learn to write by writing, but instruction must be a built-in accompaniment of such writing. Instruction may be viewed as a process that includes providing stimulation for students to write, teaching skills appropriate for a variety of forms, guiding the proof-reading needed for preparing final drafts, and providing ways for students to share their writing.

Prominent in the most recent literature are recommendations for pre-writing, writing, and post-writing stages of the composing process. Kean (12) suggests a dictating, copying sequence for younger children; for older ones, idea generation, organization, selection, writing, editing, and audience trial. Lundsteen (14) discusses details of pre-writing (85% of the process), writing and re-writing, and display for audience (15). Similar processes are described by Graves (10), Savage (21), and Burrows (4).

Instruction related to the content of children's writing is discussed in interesting detail in Burgess (2) who presents several pieces of writing that grew out of different experiences, with the teachers' introductions and comments included. Moffett (19) gives detailed descriptions of ways of working with students in lower and upper grades on a variety of types of writing. Fisher (7) included particularly interesting suggestions for poetry writing, along with briefer treatments of informational and personal writing. Kean (12) has a brief but helpful discussion of the beginnings of more disciplined writing (rhetorical skills) suitable for upper grade children. Such skills are needed for deciding what to write, to whom, for what purpose, and how best to say it. Larson (13) encourages teachers to move cautiously from the

"fun and pleasure" context of students' writing to the kind that asks them to think about who is going to read what they write (sense of audience). As an approach to beginnings of such instruction Fichteneau (5) presents three basic lessons that offer very practical help to teachers of upper grade children who have reached some degree of maturity in writing.

Evaluation. "The professional literature suggests an abundance of ways to encourage children to write, but does not have nearly as much on how to evaluate what is written." (14:52)

Measuring the effects of teaching writing continue to baffle not only teachers but researchers as well. Objective measures in standardized tests have long been limited to mechanical matters. (3) While mechanical problems are pounced upon most readily by the general public, and therefore, must be of concern to teachers, the truly competent teacher of composition knows that mechanics ranks lowest on the list of priorities for both teaching and evaluating writing. The National Assessment of Educational Progress is to be commended on its attempt to evaluate composition as a whole (17), but such evaluation is not very helpful to those concerned with teaching it.

A number of rating scales have been developed for various kinds of writing. The subdivisions of the factors considered are helpful for teachers for both teaching and evaluating. Burns (3) includes several such rating scales; and a chapter in Lundsteen (14) includes helpful references to and critiques of a number of rating scales. Fagan (5) includes a few tests suitable for use with elementary children, but few of them deal with the content of writing.

Self-evaluation by the writers themselves is a promising approach that can help teachers get a view of writing process as well as product. Helpful references are included in Lundsteen (15), and Graves' transcriptions of his sessions with children (9) suggest some promising practices that teachers can use.

By far the most detailed and sophisticated literature on evaluation of writing is that provided by Lundsteen (15) in her chapter on "Evaluation and Accountability in Language Arts Instruction". She includes rating scales, checklists, objective assessments, self-evaluative techniques, and an extensive bibliography on assessment. Though some of this material may be more useful to researchers than practical for teachers, the latter will find helpful suggestions throughout.

Criterion Indicators for the Teaching of Writing

Table 8 presents eleven indicators of teaching effectiveness for a classroom teacher of writing. These are divided into two types of behavioral statements. In the right column will appear the cognitive-based criteria. These are the specific items of knowledge required of the teacher. The left-hand column presents the performance-based criteria for teaching writing. These items represent the methods or techniques that must be used by the teacher to affect pupil writing performance. The first column represents the extent of the teacher's sources of knowledge for teaching writing. The second column represents the observable application of that knowledge. Both kinds of behavior are necessary.

TABLE 8. WRITING: TEACHER COMPETENCIES

Know (Cognitive)	Can Do (Performance)
DIAGNOSIS AND PRESCRIPTION	
<ol style="list-style-type: none"> 1. Linguistic skills and concepts basic to constructing sentences <ul style="list-style-type: none"> - <u>four</u> basic sentence patterns (BE, V-I, V-T, V-L) - <u>five</u> simple sentence transformations; (passive, negative, interrogative, imperative, and "there") - techniques of sentence expansion and reduction; of coordination and subordination 2. General and mechanical skills basic to all writing: punctuation, capitalization, correct word forms, organization, appropriate word choice, and addressing a specific audience 3. Composing skills unique to various kinds of writing 	<ol style="list-style-type: none"> 1. - Evaluate writing products <ul style="list-style-type: none"> - for sentence fragments - for run-on sentences - for variety in length and structure - Plan lessons to meet specific needs 2. - Evaluate students' performance on use of general writing and mechanical skills <ul style="list-style-type: none"> - correct use of punctuation, capitalization, and word forms - ability to organize a paragraph in four different ways - common forms (letters, checks, applications) - choosing words appropriate to content, purpose, and audience - Plan lessons to meet specific needs 3. - Evaluate students' performance for skills specific to writing stories, anecdotes, articles, reports, poems, advertisements, editorials, news stories, feature stories, comic strips, etc. <ul style="list-style-type: none"> - Plan lessons to teach specific skills

TABLE 8. WRITING: TEACHER COMPETENCIES cont.

Know (Cognitive)	Can Do (Performance)
ORGANIZATION AND MANAGEMENT	
<p>4. Characteristics of <u>formal</u> and <u>informal</u> instructional strategies, differentiated with respect to students' needs for getting specific directions from the teacher; and to the amount of choice students have in determination of topics and learning activities</p>	<p>4. Organize classroom to provide both formal and informal opportunities to write Students may:</p> <ul style="list-style-type: none"> - complete writing assignments within a "writing period" - write independently in free time in or out of school - write on assigned topics or choose their own - write with or without direct help or encouragement from teacher
<p>5. Procedures for conducting individual conferences with students to stimulate, evaluate and to teach writing</p>	<p>5. Confer with students individually to discuss writing</p>
INSTRUCTION	
<p>6. Role of pre-writing activities, preceding writing sessions, to stimulate interest and to generate ideas in accordance with purpose and needs for writing</p>	<p>6. Provide pre-writing activities appropriate for a variety of purposes and needs for writing</p>
<p>7. Procedures appropriate for stimulating students to write about their own experiences, and for responding to such writing</p>	<p>7. - Provide appropriate stimuli for students to draw upon their own experiences as content for writing - Receive written composition appreciatively and respond with positive comments on specific qualities</p>

TABLE 8. WRITING: TEACHER COMPETENCIES cont.

Know (Cognitive)	Can Do (Performance)
INSTRUCTION cont.	
8. Types of writing appropriate for meeting in-school and out-of-school writing needs	8. - Provide appropriate suggestions or assignments to teach composing skills needed for different contexts, audiences, and purposes - content: fiction, information, poetry, prose, fantasy, realism - audience: teacher, parent, other adults; peers, younger students; someone known, unknown - purpose: entertain, inform, persuade
9. Role of post-writing activities to enhance the satisfaction of composing	9. - Guide students toward awareness of proof-reading skills needed for preparing final drafts of a composition - Provide opportunities for students to share writing with others in a variety of ways: read aloud; post on bulletin boards or place in library; "publish" in room, school paper, individual book, or anthology; send home
EVALUATION	
10. How to formulate test items and devise techniques appropriate for assessing specific writing skills	10. Use data from informal tests to plan instruction, content and strategies

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TABLE 8. WRITING: TEACHER COMPETENCIES cont.

Know (Cognitive)	Can Do (Performance)
GROWTH PATTERNS	
11. Characteristics of children's writing at three developmental levels: school entrance, fourth, and seventh grades	11. - Provide writing activities appropriate for maturity levels of a particular group - Evaluate students' writing by criteria appropriate for individual maturity levels

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SPELLING: TEACHER COMPETENCIES

Competencies for Teaching Spelling

Growth Patterns. Relatively little information is available for teachers of characteristics of spellers at different ages. Interesting beginnings have been made by Read (14) who was able to identify some characteristics of the spontaneous spelling of twenty children before exposure to school and to instruction in how to spell. This invented spelling was highly unorthodox, but showed some consistent patterns of organizing the sounds of the English language. Clay's (6) report on early stages of handwriting includes examples of children's spelling before school instruction.

Once school instruction begins these often logical inventions gradually become labeled as misspellings, and adult smiles of indulgence change to frowns of disapproval. Both Read's and Clay's findings suggest that teachers and parents be more appreciative and respectful of children's inventiveness in spelling well into the early years in school.

Reflected in most recommendations for spelling programs, however, is a sequence of developmental skills from copying to proofreading and correction. Differences in children's growth in acquiring spelling skills are well documented by the experience of teachers of spelling who will find helpful suggestions by Green and Petty (10) and Burns and Broman (4) on caring for individual needs and abilities of the high and low achievers in spelling.

Diagnosis and Prescription. An important part of linguistic approaches to spelling instruction is the teacher's ability to analyze the causes of misspelling, both for groups and individuals. Burn's chart of causes and treatment of spelling errors (3) and Fisher's discussion of factors contributing to poor spelling (9) may help teachers detect causes of error.

Fundamental to both diagnosis and prescription is the teacher's knowledge of the linguistic principles underlying the spelling system of the English language. In Part One of Spelling: Structure and Strategies, Hanna, et. al. (11), provide basic information about linguistic principles as they apply to spelling, Lundsteen (13) emphasizes the importance of a problem-solving approach to spelling. Such an approach calls for helping children to diagnose their own errors, a process that teachers generally are not familiar with.

Organization and Management. The almost universal practice of providing for daily study of spelling for fifteen minutes per day is finally beginning to disappear as a recommendation in the current literature. The reason is, in part, due to the shift from the narrow focus on learning to spell a body of words to one that includes learning generalizations that help to spell words not studied, the application of these learnings to spelling words when writing, the proofreading of writing for spelling errors, and study of language to add interest to a traditionally dull subject.

Organizing for teaching spelling includes providing for differences that may be accomplished by some form of grouping. Burns (4) suggests procedures for determining instructional levels and specific ways of meeting needs of poor, average, and above average spellers.

Instruction. "Words need teaching far more than they need testing," (1:471).

For a good many years spelling instruction has been turned over to spelling text books and workbooks (18, 1). While the teaching of generalizations (rules) and patterns has not been as grossly neglected in the past as some linguists would have us believe, modern spelling programs are based on linguistic principles that teachers need to know in order to teach children more efficiently and accurately.

The distinction between decoding and encoding is important for teachers to understand since some generalizations are common to both reading and spelling. When a child reads, he sees the symbols and uses generalizations to attach sound to them, but when he spells, he hears the sounds and needs to record the symbols that signal the appropriate sounds to the reader. The word circle, for example, is easily decoded using generalizations for syllable division, stress, and vowel and consonant sounds. To encode, or to spell, this word by attaching symbols that signal the sounds could result in several alternatives, all of which are reasonable 'guesses': surkle, serkel, etc. Signals for vowel sounds (VC, VCE, VV, CV) as well as rules for adding endings to base words are applied differently in reading and spelling, and so are taught differently by the teacher knowledgeable about linguistic principles.

Linguistic approaches to teaching spelling are recommended in most of the recent literature, and information about pertinent principles is provided in varying degrees of clarity and specificity. Hanna (11) devotes the first eight chapters to the knowledge on which their recommendations are based. Kean (12) makes recommendations based on research reported in Comprehensive Spelling Instruction (15) and includes considerable discussion of its linguistic base. He presents a chart of

phonemegrapheme correspondences, six pages of phonograms, and a detailed listing of derivational affixes.

Simpler and more practical discussions of linguistics and spelling are presented by Dallman (8) and by Lundsteen (13). The latter includes a sampling of procedures in linguistically based spelling programs from pre-school through intermediate grades. Malmstrom (14) has a brief discussion of spelling that includes a simple illustration of Chomsky's morphological generalizations (7) that suggest a very helpful way to deal with misspelling of vowel sounds in unstressed syllables.

The movement away from teaching that is based on assumptions that English spelling is "chaotic and irrational" (18) toward stress on its regularities results in emphasis on spelling by discovery advocated by Kean (12) and on spelling as problem solving by Lundsteen (13). Proofreading for spelling errors is strongly emphasized in all recent literature, but especially helpful are suggestions by Kean (12) and Burns and Broman (4).

Knowledge about word selection, organization, and about the various well known lists is available in most of the literature. Fisher (9) includes both Horn's and Rinsland's listing of high frequency words, as well as Johnson's "One Hundred Words Most Frequently Misspelled". Rubin (17) provides Fitzgerald's fifty demons for grades two through six.

Evaluation. Evaluation of spelling achievement has long been confidently carried on as long as mastery of lists of words was a high priority goal. The most commonly used standardized spelling tests are those that are sub-tests of achievement tests (10). Diagnostic spelling tests are suggested by Burns and Broman (4) and by Green and Petty (10). Burns (3) reproduces one diagnostic spelling test.

Since the goal of ability to apply spelling skills on written work has risen to one of considerable importance, and since linguistic approaches are concerned with application of generalizations to words not studied (15), teacher judgment and teacher-made evaluation instruments are recommended. Green and Petty (10) and Hanna (11) supply helpful directions for informal test construction.

The test-study method of testing on weekly lists is generally recommended and is described helpfully by Burns and Broman (4) and Dallman (8) as well as by others. To replace the teacher as the traditional test corrector, children correct their own spelling following the test, a procedure that has proved to be an effective study technique.

This corrected test technique is especially well described by Kean (12), Lundsteen (13), and Dallman (8).

Criterion Indicators for the Teaching of Spelling

Table 9 enumerates the basic indicators of teaching effectiveness for a classroom teacher of spelling. These are divided into two types of behavioral statements. In the right column will appear the cognitive-based criteria. These are the specific items of knowledge required of the teacher. The left-hand column presents the performance-based criteria for teaching spelling. These items represent the methods or techniques that must be used by the teacher to affect pupil spelling performance. The first column represents the extend of the teacher's sources of knowledge for teaching spelling. The second column represents the observable application of that knowledge. Both kinds of behavior are necessary.

TABLE 9. SPELLING: TEACHER COMPETENCIES

Know (cognitive)	Can Do (Performance)
DIAGNOSIS AND PRESCRIPTION	
1. Linguistic principles basic to analyzing reasons for spelling errors <ul style="list-style-type: none"> - Semantic factors (homonyms) - Phonological and morphological factors and applicable generalizations - Mispronunciations and dialect variety - Reversals and transpositions 	1. - Identify probable reasons for misspelling <ul style="list-style-type: none"> - Teach to correct basic causes of spelling error
ORGANIZATION AND MANAGEMENT	
2. How to provide flexible grouping and use of time for teaching spelling	2. Provide time: <ul style="list-style-type: none"> - for teaching and for testing - for learning a body of words and generalizations needed to spell unknown words - for applying these learning to everyday needs for spelling - for learning proofreading skills
INSTRUCTION	
3. Linguistic principles applied to <u>encoding</u> distinguished from <u>decoding</u>	3. Relate, without confusing, spelling and reading instruction

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TABLE 9. SPELLING: TEACHER COMPETENCIES cont.

Know (Cognitive)	Can Do (Performance)
INSTRUCTION cont.	
<p>4. Linguistic principles pertinent to learning and teaching spelling</p> <ul style="list-style-type: none"> - Phonological generalizations Grapheme-phoneme correspondences Phonograms (spelling patterns) - Morphological generalizations for adding affixes to base words - Role of meaning (homonyms) - High frequency words - Most frequently misspelled words - Nature and function of the dictionary 	<p>4. - Teach a variety of strategies for studying spelling:</p> <ul style="list-style-type: none"> - Generalizable rules - Spelling patterns - Automatic recall of high-frequency words - Mastery of spelling demons - Auditory, visual, or kinesthetic techniques appropriate for word or for child - Corrected test <p>- Move children toward independence in spelling while writing</p> <ul style="list-style-type: none"> - by <u>approximating correct spelling</u> - by <u>proofreading completed writing</u> - by using aids to check possible misspelling (dictionary, charts, books)
<p>5. How words on spelling lists, including those in spelling textbooks, are selected and organized</p>	<p>5. Use spelling lists to teach <u>generalizations</u> as well as mastering the spelling of <u>individual words</u></p>

EVALUATION

- | | |
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| <p>6. How to construct spelling tests to use for assessing a variety of spelling behaviors</p> | <p>6. Assess spelling progress by using a variety of testing procedures</p> <ul style="list-style-type: none"> - for ability to spell a specific body of words - for ability to apply generalizations to words whose spelling is unknown - for ability to spell words while writing sentences and paragraphs - for ability to proofread |
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TABLE 9. SPELLING: TEACHER COMPETENCIES cont.

Know (Cognitive)	Can Do (Performance)
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GROWTH PATTERNS

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7. Spelling behaviors of students characteristic of development levels from preschool through grade seven:
- Experimentation and invention
 - Copying
 - Writing from memory (automatic recall)
 - Proofreading
 - Re-writing to correct misspelling

7. - To adjust level of instruction to spelling abilities of students
- To evaluate spelling performance by criteria appropriate for individual maturity levels

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HANDWRITING: TEACHER COMPETENCIES

Competencies for Teaching Handwriting

Growth Patterns. A significant contribution to knowledge about handwriting has come from the research of Marie Clay (5). Teachers will find very helpful her observations of children's inventions and experimentation from pre-school through early school stages. The many samples of children's handwriting on which she bases her interpretations will look very familiar to teachers of young children. While Clay's intention is to derive principles, not to give instruction for teaching handwriting, teachers as well as parents may find new ways of viewing children's early attempts to write, and new criteria for examining taken-for-granted practices. She questions, for example, the value of tracing as an early aid to letter formation. She lays to rest the often expressed fear that allowing young children to discover on their own how to form letters will build bad habits that must later be painfully unlearned.

Since handwriting is primarily a motor skill, children's growth in developing motor skills must be carefully assessed before systematic instruction begins, and before changeover to cursive handwriting is attempted. Burns and Broman (3) include a concise listing of growth patterns related to readiness for handwriting instruction. Dallman (6) presents detailed suggestions for appraisal of readiness and of ways to develop it. Fisher (7) suggests art activities that build such readiness.

Growth factors involved in changing from manuscript to cursive handwriting are discussed by Dallman (5) and Green and Petty (8). If children are required to learn cursive handwriting, a pertinent consideration is letter form, particularly the upper case letters which tend, in some systems, to be over-elaborate and very difficult for many children to learn. Savage (12) presents charts showing all letter forms advocated in the materials sold by five different companies. Burrows, et. al. (4) suggests cursive letter forms considerably simplified over those of most systems.

Problems in teaching left-handed children are discussed in most of the literature. Teachers will find helpful suggestions by Savage (12), Dallman (6), and Boyd (1).

Diagnosis and Prescription. Fundamental to diagnosing handwriting problems is the teacher's knowledge of the basic strokes of manuscript and cursive letter forms. Dallman (6) has very detailed and helpful information on basic strokes of both manuscript and cursive writing.

Diagnosing problems related to legibility are helpfully discussed by Burns (2), Burns and Broman (3), Dallman (6), and Boyd (1). Following such diagnosis teachers often can help children overcome certain kinds of problems by preparing individual worksheets. Burns (2) includes samples of such worksheets, as do Burns and Broman (3).

Organization and Management. Dallman (6) has a practical and detailed discussion of organizing for teaching handwriting that includes plans for procedures in a handwriting period and for integrating teaching of handwriting as part of a language arts block.

Instruction. Anyone who has tried to help children change a well established writing style will agree with Burn's advice that "the handwriting program should place prevention above cure" (2:130). A good instructional program in handwriting can go far toward preventing problems. A good handwriting program includes not just instruction during a handwriting period, but emphasizes handwriting as a functional skill throughout the school day (12, 6).

Detailed instructions for teaching the specifics of manuscript and cursive letter formation are suggested in Dallman (6), and Burns and Broman (3). The latter includes sample lesson plans based on specific objectives as do Rubin (11) and Green and Petty (8). Burns and Broman (3) describe in considerable detail how to set up a handwriting learning center. Lundsteen (10) suggests an interesting approach to teaching handwriting as a problem solving process.

The teachers knowledge of basic strokes and ability to apply them in his own handwriting when instructing children are significantly related to good handwriting instruction. One source suggests that the teacher go through a set of materials and do the exercises children will be asked to do.

Evaluation. The use of handwriting scales to evaluate and to help children evaluate the quality of handwriting are not very highly recommended in most recent literature. Scales are available, however, for both cursive and manuscript writing and are reproduced in Burns (2), Burns and Broman (3), Rubin (11) and Green and Petty (8). Emphasis should not be placed on uniformity of style (9).

Informal evaluation of handwriting is essential. Teachers may find helpful suggestions for such evaluation in Burns (2), Burns and Broman (3), Savage (12), and Green and Petty (8).

Criterion Indicators for the Teaching of Handwriting

Table 10 presents the six indicators of teaching effectiveness for a classroom teacher of handwriting. These are divided into two types of behavioral statements. In the right column will appear the cognitive-based criteria. These are the specific items of knowledge required of the teacher. The left-hand column presents the performance-based criteria for teaching handwriting. These items represent the methods or techniques that must be used by the teacher to affect pupil handwriting performance. The first column represents the extent of the teacher's sources of knowledge for teaching handwriting. The second column represents the observable application of that knowledge. Both kinds of behavior are necessary.

TABLE 10. HANDWRITING: TEACHER COMPETENCIES

Know (Cognitive)	Can Do (Performance)
DIAGNOSIS AND PRESCRIPTION	
1. Factors most significantly affecting legibility of cursive and manuscript handwriting	1. - Diagnose cursive and/or manuscript writing of students with respect to basic strokes of letter formation, spacing, slant, size and alignment
<ul style="list-style-type: none"> - Letter forms <ul style="list-style-type: none"> manuscript: q, g, p, y, j, m, k, a, U, G cursive: r, h, i, k, p, z, and joinings - Size - Slant - Spacing - Alignment 	<ul style="list-style-type: none"> - Construct worksheets and/or other instructional materials to provide a sequence of exercises to remedy basic problems of individual students
ORGANIZATION AND MANAGEMENT	
2. Basic strokes of manuscript and cursive letter forms	2. Organize instruction for teaching letter forms by grouping those made with same basic strokes
INSTRUCTION	
3. Skills unique to manuscript and cursive forms	3. Use appropriate procedures to enable students to add cursive to manuscript writing skill
4. How to relate instruction in handwriting skills to functional needs for writing	4. Integrate teaching of specific skills with everyday needs for use of handwriting <ul style="list-style-type: none"> - Move students toward independence in proof-reading and correcting illegibilities in manuscript and cursive writing

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TABLE 10. HANDWRITING: TEACHER COMPETENCIES cont.

Know (Cognitive)	Can Do (Performance)
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EVALUATION

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| <p>5. Strengths and limitations of handwriting scales to evaluate handwriting quality and rate</p> | <p>5. Use handwriting scales, when appropriate, to keep records of student progress and to plan instructional strategies</p> |
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GROWTH PATTERNS

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| <p>6. Characteristics of students' development of handwriting skills from pre-school through grade seven, basic to making decisions concerning:</p> <ul style="list-style-type: none"> - When to begin instruction for individual students - Choices of handwriting materials and instruments - Whether to require changeover from manuscript to cursive handwriting - When to changeover for individual students - Use of alternative cursive forms to simplify the system for individuals | <p>6. Adapt instruction in handwriting in accordance with individual differences in ability levels, motor control, and handedness</p> |
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