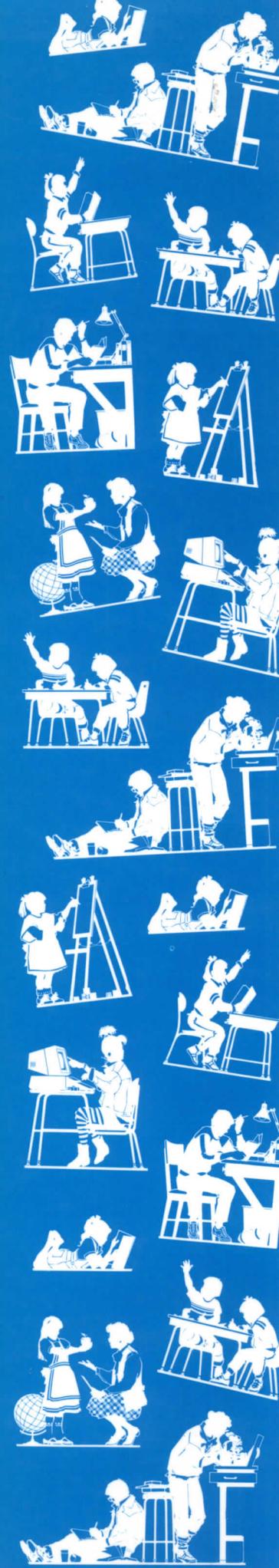


For regular and special reading teachers, here are practical strategies, materials, and activity sheets for the diagnosis and remediation of all types of reading disabilities.

COMPLETE READING DISABILITIES HANDBOOK

Ready-to-Use Techniques
for Teaching Reading
Disabled Students

WILMA H. MILLER



Roy Thomas

10/22/97

\$32⁰⁰

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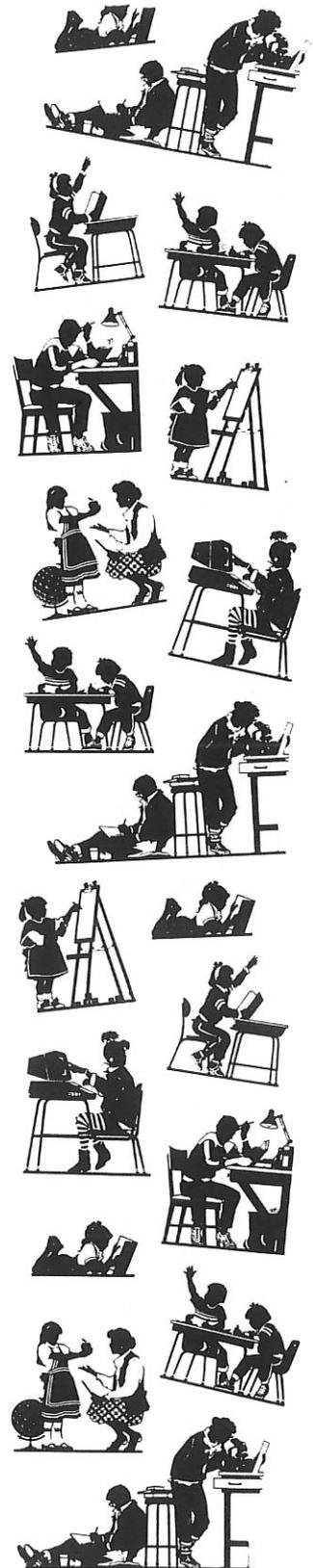
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ABOUT THE AUTHOR

A former classroom teacher, Wilma H. Miller, Ed.D., has been teaching at the college level for more than 28 years. She completed her doctorate in reading at the University of Arizona under the direction of the late Dr. Ruth Strang, a nationally known reading authority.

Dr. Miller has contributed numerous articles to professional journals and is the author of more than sixteen other works in the field of reading education. Among the latter are *Identifying and Correcting Reading Difficulties in Children* (1972), *Diagnosis and Correction of Reading Difficulties in Secondary School Students* (1973), *Reading Diagnosis Kit* (1975, 1978, 1986), the "Corrective Reading Skills Activities File" (1977), *Reading Teacher's Complete Diagnosis & Correction Manual* (1988), and *Reading Comprehension Activities Kit* (1990), all published by The Center for Applied Research in Education.

She is also the author of an inservice aid for teachers entitled *Reading Activities Handbook* (1980), several textbooks for developmental reading, *The First R: Elementary Reading Today* (1977), and *Teaching Elementary Reading Today* (1983), published by Holt, Rinehart & Winston, Inc., and of a guide to secondary reading instruction, *Teaching Reading in the Secondary School*, published by Charles C. Thomas.

To the memory of my beloved father and mother,
William A. Miller and Ruth K. Miller,

and

Win Huppuch, Vice-President of the Education Group, C.A.R.E.,
my dear friend and professional adviser for twenty-three years

THE PRACTICAL HELP THIS BOOK OFFERS

When I ask lay people if they think the public schools are teaching reading effectively, a number usually respond that they are not completely satisfied with the job the schools are doing. Some say that more phonics should be taught and that this type of instruction would ensure good reading achievement for all children. Do you, a reading teacher, believe the schools are teaching reading skills effectively to all children? If you are a typical teacher, you would reply that we generally are doing a good job but could still do a lot better with some children. As a reading specialist with over 30 years' experience in the field, my own response is that indeed most reading teachers try their very best and are teaching reading skills effectively to most children. However, I would have to admit that there are many students in our elementary schools who do not read as well as they could.

My personal belief from visiting many classrooms and supervising teacher-trainees who tutor children with reading problems is that at least 15 percent of all students in our elementary schools have significant reading problems. In some inner-city schools the percentage may be 50 percent or higher, perhaps nearer to 100 percent. Here are some sobering statistics in relation to reading disabilities in our society at large:

- Approximately 60 million Americans are thought to read below the eighth-grade reading level.
- About 85 percent of the juveniles who pass through the court system are functionally illiterate.
- Approximately 50 percent of the inmates in U.S. prisons are thought to be functionally illiterate.

Obviously, reading ability is an extremely important factor in a person's living a successful and fulfilling life. Thus it is vitally important that reading educators effectively teach reading strategies and skills to all the students who are placed in our trust. The primary purpose of the *Complete Reading Disabilities Handbook* is to help you, the reading teacher, do this as effectively as possible.

Everyone involved in the teaching of reading should find the *Handbook* a valuable resource, including classroom reading teachers, Chapter 1 reading teachers, teachers of learning-handicapped children, reading specialists and supervisors, and K-8 administrators. It has been written in as practical a manner as possible and contains many classroom-tested reading strategies, suggestions, lists of materials, and ready-to-duplicate activity sheets to enable you to teach reading skills effectively to all of your students, whether they are learning handicapped or simply have reading problems.

Chapter 1, "What Are Reading Disabilities?" provides a brief overview of the incidence of reading difficulties in contemporary elementary schools. It identifies and explains the major causes of reading problems, including educational factors, visual and auditory defects, neurological dysfunctions, language deficits, intellectual factors, unfavorable home

environments, low self-esteem, and emotional problems. The chapter also provides criteria for determining whether a student has a reading problem or rather is a slow learner already reading to the limits of his or her potential.

Chapter 2, "General Guidelines and Materials for Diagnosing Reading Disabilities," emphasizes the importance of continuous informal assessment through teacher observation with and without structured checklists. It includes a number of reproducible checklists that can be used by the reading teacher with both reading-disabled and learning-handicapped children. Checklists are provided at the emergent literacy level, the primary-grade reading level, and the intermediate-grade reading level.

This chapter also describes and illustrates other important elements of informal reading assessment, such as portfolio assessment, work samples, a modern oral reading miscue analysis, the Individual Reading Inventory, inventories in the word-identification techniques, and variations of the cloze procedure. Reproducibles include a complete Individual Reading Inventory and three variations of the cloze. You will also find various types of standardized assessment devices that can be used effectively with reading-disabled children including survey reading/achievement tests, process-oriented comprehension measures, criterion-referenced tests, visual and auditory perception tests, intelligence tests, and a number of unique tests for assessing the abilities of learning-handicapped children.

Chapter 3, "Ready-to-Use Materials for Diagnosing Disabilities in the Word-Identification Techniques," describes in specific terms with many reproducible devices how to assess disabilities in the techniques of letter naming, sight-word knowledge, phonic (graphophonic) analysis, structural (morphemic) analysis, and semantic (contextual) analysis. Included are a wealth of suggestions for assessing ability in each of these reading skills and many ready-to-use devices that can be effectively used in this assessment. This chapter will help teachers of both disabled readers and learning-handicapped children to assess reading easily and accurately.

Chapter 4, "Ready-to-Use Materials for Diagnosing Disabilities in Comprehension and Basic Study Skills," begins by briefly describing the basic characteristics of comprehension. Next, it illustrates various ways of assessing comprehension ability, including observational checklists, questioning strategies, literature-based assessment, the retell strategy, survey reading/achievement tests, and process-oriented measures of reading comprehension. The chapter provides a reproducible device of multiple acceptable responses as well as ready-to-use examples of both the cloze procedure and the maze technique. It then briefly describes the most important study skills and illustrates the following ways of assessing ability in them: observational checklists, QARs of content reading, various standardized tests, group reading inventories, and the content-oriented Individual Reading Inventory. Reproducible examples of several of these types of devices are included.

Chapter 5, "Ready-to-Use Strategies and Activities for Correcting Disabilities in the Word-Identification Techniques," contains a wealth of useful information for both reading teachers and learning disability teachers and is the most comprehensive resource in this area of which I am aware. It includes numerous strategies, lists of materials, reproducible activity sheets, and games for correcting (remediating) disabilities in letter naming (recognition), sight-word knowledge, phonic (graphophonic) analysis, structural (morphemic) analysis, and semantic (contextual) analysis at both the primary-grade and intermediate-grade reading levels.

The chapter first presents strategies and ready-to-use materials for improving visual perception ability and knowledge of the capital and lower-case letter names. These sections should be especially useful to teachers of learning-handicapped children. As you know, it is essential for a child to possess a good sight vocabulary if he or she is going to make good progress in any corrective (remedial) reading program. Therefore, many strategies, games, and reproducible activity sheets are provided for improving sight-word knowledge both in isolation and in context. The chapter also explains the innovative Reading Recovery Program in detail and shows how to best use similar strategies with disabled readers and learning-handicapped individuals in a reading improvement program.

Ability in the basic phonic elements and rules is very important to the reading success of most children and is especially crucial to the reading success of many learning-handicapped children. In order to meet these needs, Chapter 5 also provides many strategies, games, and ready-to-use materials for improving ability in auditory discrimination and phonic (graphophonic) analysis. In addition, you will find many techniques, games, and ready-to-use activity sheets for improving ability in morphemic (structural) analysis, including a comprehensive list of prefixes, suffixes, and word roots which should be of great help to reading teachers. The chapter provides ideas and reproducible activity sheets for improving ability in semantic (contextual) analysis, and closes by describing concretely how to teach spelling skills to learning-handicapped children.

Chapter 6, "Ready-to-Use Strategies and Activities for Correcting Disabilities in Comprehension and Basic Study Skills," provides detailed help for improving these skills at both the primary-grade and intermediate-grade reading levels. Since most of the strategies and materials that can be used to improve comprehension can be used equally well to improve ability in the basic study skills, no differentiation is made between them. Here is a sampling of some of the strategies that are covered in detail: wide reading with prediction of story content, the Anticipation Guide, the Directed Reading Activity (DRA), the Directed Reading-Thinking Activity (DR-TA), semantic mapping, story impressions, QARS of various types, the Concept Question Chain, reciprocal questioning, self-monitoring, visual imagery, the herringbone technique, text lookbacks, fix-up strategies, and various study skills techniques such as Survey Q3R.

Chapter 7, "Special Strategies and Delivery Systems for Teaching Reading Skills to Disabled Readers and Learning-Handicapped Students," first mentions several visual perception programs and phonic programs that can be helpful in teaching reading to learning-handicapped students. It then briefly discusses four psychological counseling programs that may be useful with learning-handicapped children: hypnosis, suggestopedia, reality therapy, and behavior modification. The chapter next describes some different delivery systems for teaching reading skills to disabled readers and learning-handicapped students: pull-out programs, resource rooms, reading clinics or labs, remedial schools, and summer reading programs. The chapter concludes by mentioning Individual Education Plans (IEPs) and the Regular Education Initiative (REI).

Four helpful appendices are included at the end of the *Handbook*. Appendix I provides a list of computer software publishers. Appendix II offers a comprehensive list of materials for use in a reading improvement program with either disabled readers or learning-handicapped students. Appendix III provides a list of test publishers, and Appendix IV offers a list of the publishers of reading materials and reading software.

You will find the following to be particularly useful features of the *Complete Reading Disabilities Handbook*:

- The spiral-bound format makes it easy to reproduce the many full-page diagnostic and corrective reading devices included.
- Provides a wealth of practical, classroom-tested strategies for improving the reading skills of *all* types of readers.
- Is equally useful in working with disabled readers and learning-handicapped children.
- Contains over 100 ready-to-duplicate devices and activities for assessing and correcting specific reading disabilities.
- Describes all of the causes of reading disabilities in simple, nontechnical language.
- Stresses how oral reading miscue analysis can be effectively used in any reading improvement program.
- Describes the contemporary Reading Recovery Program in detail and tells you in concrete terms how strategies similar to those used in Reading Recovery can be implemented in a reading improvement program.
- Includes a comprehensive list of computer software for assessing and correcting various kinds of reading problems.

- Emphasizes the effective teaching and reinforcement of letter names, an emphasis not commonly found in similar resources.
- Covers various psychological and counseling approaches that can be used with students who have emotional problems as well as reading problems.

After teaching in this field for over 30 years, I remain optimistic that we can make further progress in reading instruction. There still are far too many students who do not learn to read effectively or who do not value reading for pleasure, perhaps an even more important goal. If this handbook can help reading teachers and learning disability teachers improve the grim statistics mentioned earlier—even to a small degree—it will have served its purpose well.

Wilma H. Miller
Illinois State University

CONTENTS

The Practical Help This Book Offers v

CHAPTER 1: WHAT ARE READING DISABILITIES? • 1

How Common Are Reading Disabilities?..... 1

Eddie (2)

Why Educational Reform Has Not Been More Successful in Improving Reading Instruction 2

How Elementary Reading Instruction Can Be Made More Effective 3

Major Causes of Reading Disabilities..... 4

Educational Factors (4) • Visual and Auditory Defects (10) • Auditory Defects (12) • Learning Disabilities (15) • Language Deficits (19) • Gender Differences (20) • Health Problems (20) • Intellectual Causes (21) • Preferred Learning Modality (22) • Mental Impairment: How Educable and Trainable Mentally Handicapped Children Should Be Taught Reading (23) • Prior Knowledge and Self-Monitoring (23) • The Home Environment and Reading (24) • Social-Emotional Causes and Self-Esteem (25) • Interests and Attitudes (27)

The Relationships Among Reading Disability, Handwriting, and Arithmetic..... 27

The Significance of the Multiple Causation Theory of Reading Disabilities 28

Some of the Criteria for Determining Reading Disability 28

CHAPTER 2: GENERAL GUIDELINES AND MATERIALS FOR DIAGNOSING READING DISABILITIES • 32

The Differences Between Reading Assessment and Reading Diagnosis 32

An Emergent Literacy Behavioral Checklist (33) • A Primary-Grade Checklist for Observing Reading Competencies and Weaknesses (37) • An Intermediate-Grade Checklist for Observing Reading Competencies and Weaknesses (37)

Additional Ways of Assessing (Diagnosing) Reading Disabilities 48

Portfolio Assessments and Work Samples (48) • Tape-Recorded Oral Reading Protocols (50) • Oral Reading Miscue Analysis (50) • The Individual Reading Inventory (55)

Samples of Word Lists and Graded Oral Reading Paragraphs	62
Variations of the Cloze Procedure	96
<i>Useful Variations of the Cloze Procedure (96) • How to Score the Variations of the Cloze Procedure (97) • Samples of Cloze Exercises at the Third-Grade, Fourth-Grade, and Fifth-Grade Reading Levels (98)</i>	
Some Standardized Ways of Assessing (Diagnosing) Reading Disabilities.....	105
<i>Standardized Survey Reading or Achievement Tests (105) • Standardized Process-Oriented Measures of Reading Comprehension (108) • Criterion-Referenced Tests (110) • Standardized Diagnostic Reading Tests (110) • Visual and Auditory Perception Tests (113) • Some Individual and Group Intelligence Tests and Their Place in a Reading Improvement Program (115) • Several Unique Tests for Assessing Abilities of Learning-Handicapped Children (118)</i>	
Answers to Reproducibles.....	121

CHAPTER 3: READY-TO-USE MATERIALS FOR DIAGNOSING DISABILITIES IN THE WORD-IDENTIFICATION TECHNIQUES • 122

What Constitutes Letter-Name Knowledge?.....	122
Assessing Letter-Name Knowledge in Isolation	123
<i>Assessment Sheets for Evaluating Letter-Name Recognition (124)</i>	
Assessing Letter-Name Knowledge in Context	129
<i>Assessment Sheet for Recognizing Upper-Case and Lower-Case Letter Names in Context (129)</i>	
Sight-Word Knowledge.....	134
Assessing Sight-Word Knowledge in Isolation.....	135
<i>Activity Sheets for Assessing Knowledge of Environmental Print in Isolation and in Context (135)</i>	
Using a Sight-Word List to Assess Words in Isolation.....	142
<i>Activity Sheets for Assessing Sight-Word Recognition in Isolation (142)</i>	
Assessing Sight-Word Knowledge in Context.....	147
<i>Activity Sheets for Assessing Sight-Word Recognition in Context (147)</i>	
Phonic (Graphophonic) Analysis.....	151
Assessing Phonic (Graphophonic) Analysis in Isolation.....	151
<i>Individually Administered Inventory in Phonic (Graphophonic) Analysis (151) • Group-Administered Inventory in Phonic (Graphophonic) Analysis (154)</i>	

How Oral Reading Miscue Analysis Emphasizing Phonic (Graphophonic) Analysis Is Used in Assessment	157
How Ability in Phonic (Graphophonic) Analysis Is Assessed in Context	157
<i>Device for Assessing Ability in Phonic (Graphophonic) Analysis in Context (158)</i>	
Structural (Morphemic) Analysis	161
How Ability in Structural (Morphemic) Analysis Is Assessed in Isolation	161
<i>Group-Administered Inventory for Assessing Competency in Structural Analysis in Isolation (162)</i>	
Assessing Ability in Structural (Morphemic) Analysis in Context	165
<i>Device for Assessing Ability in Structural (Morphemic) Analysis in Context (165)</i>	
Semantic (Contextual) Analysis	167
Assessing Ability in Semantic (Contextual) Analysis	167
<i>Individually Administered Assessment Device for Determining a Child's Competency in Identifying Words in Isolation and in Context (168)</i>	
Answers to Reproducibles	171

CHAPTER 4: READY-TO-USE MATERIALS FOR DIAGNOSING DISABILITIES IN COMPREHENSION AND BASIC STUDY SKILLS • 173

What Is Reading Comprehension?	173
How Observational Checklists Are Used in Assessing Comprehension	174
Some Types of Questioning Strategies	174
<i>Examples of Questioning Strategies for Before and During Reading (175)</i>	
• <i>Examples of Questioning Strategies for After Reading (177)</i>	
Using Survey Reading or Achievement Tests to Assess Comprehension Skills	178
Using Process-Oriented Devices to Assess Comprehension Ability	178
<i>Example of a Process-Oriented Measure of Reading Comprehension (179)</i>	
Using Criterion-Referenced Tests to Assess Comprehension Skills	187
Using Individual and Group Diagnostic Reading Tests to Assess Comprehension Skills	187
Using the Traditional Cloze Procedure to Assess Comprehension Ability	187
<i>Example of a Traditional Cloze Procedure to Assess Comprehension Ability (188)</i>	
Using the Maze Technique to Assess Comprehension Ability	191
<i>An Example of a Maze Technique to Assess Comprehension Ability (191)</i>	

How Comprehension Skills and Basic Study Skills Are Related 194
Ways to Evaluate Competency in the Various Study Skills..... 194

Examples of Group Reading Inventories to Assess Ability in the Study Skills (194) • A Group Reading Inventory Model (195) • Device for Assessing Ability in a Study Skill (197)

Answers to Reproducibles..... 200

**CHAPTER 5: READY-TO-USE STRATEGIES AND ACTIVITIES
FOR CORRECTING DISABILITIES IN THE
WORD-IDENTIFICATION TECHNIQUES • 201**

What Is Visual Perception Ability?..... 201

Ways to Improve Visual Perception Ability (202) • Some Visual Perception Training Programs (205) • The Role of Optometric Training in the Improvement of Visual Perception (206) • Activity Sheets for Improving Visual Perception Ability (206)

What Is Letter Identification? 213

Improving Letter-Naming Ability in Isolation and in Context (214) • Activities and Games for Reinforcing Letter Names (223) • Using Predictable Books and Language-Experience Stories to Improve Letter-Name Knowledge (228) • Tradebooks for Teaching and Reinforcing Letter Names (228) • Songs and Fingerplays for Reinforcing Letter Names (232)

What Is Sight-Word Knowledge? 238

Presenting and/or Reinforcing the Words in a Sight-Word List or in a Basal Reader in Isolation (244) • Strategies and Games for Teaching and/or Reinforcing Sight-Word Knowledge in Isolation (255) • Presenting and/or Reinforcing Words in a Sight-Word List or in a Basal Reader in Context (265) • Using Reading Recovery Strategies, Predictable Books, and Big Books to Increase Sight-Word Knowledge (268) • A List of Predictable Books that Can be Used at the Emergent Literacy Stage (274)

What Is Auditory Discrimination? 275

Strategies for Improving Ability in Auditory Discrimination (276)

What Is Phonic (Graphophonic) Analysis? 276

Strategies, Materials, and Games for Improving Ability in Phonic (Graphophonic) Analysis in Isolation and in Context (281) • Activity Sheets for Reinforcing Phonic Analysis (288) • Games for Phonic Analysis (295)

What Is Structural (Morphemic) Analysis? 298

Strategies, Materials, and Games for Improving Ability in Structural (Morphemic) Analysis in Isolation and in Context (303) • Activity Sheets for Reinforcing Structural Analysis (310) • Games for Structural Analysis (316)

What Is Semantic (Contextual) Analysis?.....	318
<i>Strategies and Materials for Improving Semantic (Contextual) Analysis (319)</i>	
• <i>Activity Sheets for Reinforcing Semantic Analysis (325)</i>	
Strategies for Teaching Spelling Skills to Learning-Handicapped Students	332
Answers to Reproducibles.....	335

CHAPTER 6: READY-TO-USE STRATEGIES AND ACTIVITIES FOR CORRECTING DISABILITIES IN COMPREHENSION AND BASIC STUDY SKILLS • 339

What Is Reading Comprehension?.....	339
The Various Levels of Reading Comprehension	340
<i>Textually Explicit (Literal or Factual) Comprehension (340) • Textually Implicit (Interpretive or Inferential) Comprehension (341) • Critical (Textually Implicit or Evaluative) Reading (341) • Scriptally Implicit (Script Implicit, Schema Implicit, Creative, or Applied) Comprehension (341)</i>	
The Basic Study Skills	341
Strategies and Ready-to-Use Materials to Improve Comprehension Skills and the Basic Study Skills	342
<i>The Language-Experience Approach, Predictable Books, and Big Books (342) • Wide Reading of Easy, Interesting Materials (343) • Prediction Strategies (343) • The Anticipation Guide (344) • The Directed Reading Activity (348) • The Directed Reading-Thinking Activity (DRTA) (348) • Semantic Mapping (Semantic Webbing) (349) • Story Impressions (353) • K-W-L (355) • QARs (Questioning Strategies) (357) • The Concept Question Chain (357) • Reciprocal Questioning (ReQuest Procedure) (359) • Self-Monitoring (Metacognition) of the Reading Materials (359) • Visual Imagery (362) • The Herringbone Technique (367) • Retelling Technique (370) • Text Lookbacks (370) • Punctuation Marks (370) • Explicit Teaching of the Implicit (Interpretive) Comprehension Skill of Discriminating Between Fact and Opinion (371) • The Cloze Procedure (375) • The Maze Technique (375) • Fix-Up Strategies (375) • Survey Q3R (376)</i>	
Answers to Reproducibles.....	378

CHAPTER 7: SPECIAL STRATEGIES AND DELIVERY SYSTEMS FOR TEACHING READING SKILLS TO DISABLED READERS AND LEARNING-HANDICAPPED STUDENTS • 379

Visual Perception Programs to Use with Learning-Handicapped Children.....	379
Phonic Programs to Use with Learning-Handicapped Students	380
Other Strategies to Use with Disabled Readers and Learning-Handicapped Children	380

xiv CONTENTS

Psychological Counseling Approaches to Use with Disabled Readers and Learning-Handicapped Children	381
Remedial Reading Delivery Systems	382
The Regular Education Initiative or Inclusion	383
Individual Education Plans	384

APPENDICES • 385

Appendix I: Computer Software	386
Appendix II: List of Materials for Use in a Reading Improvement Program with Disabled Readers or Learning Handicapped Students	388
Appendix III: List of Test Publishers	401
Appendix IV: List of Publishers of Reading Materials and Reading Software	403

What Are Reading Disabilities?

Most reading teachers are conscientious and are teaching reading skills as well as conditions permit to the children for whom they are responsible. However, we still are not completely successful with all children, and their resulting lack of reading progress can impact very negatively upon both their school success and their future personal and professional lives.

How Common Are Reading Disabilities? _____

We live in a technological society in which men and women travel into outer space, in which organs are successfully transplanted, and in which multitudes of data can be stored on computer disks. Why are we not able to teach all of our children to read successfully? The answer to this question is as complex as the reading process itself.

Although statistics about the incidence of reading disabilities may vary somewhat, at least 15 percent of all students in elementary schools are reading below their potential level. Others think that 10 percent to 12 percent of students in English-speaking countries have reading problems, while 50 percent to 100 percent of children in disadvantaged areas may have reading disabilities. In the United States, between 70 percent and 75 percent of the children who have reading problems are boys. Some of the reading disabilities are caused by learning disabilities, while some children simply have reading problems.

It seems appropriate here to reiterate some grim statistics about reading problems which were mentioned in the preface:

- 60 million Americans read below eighth-grade level.
- 85 percent of the juveniles processed through our court system are illiterate.
- 50 percent of the inmates in our prison system are functionally illiterate.

Thus, you can see that it is imperative to teach reading as effectively as possible to *all* students. To do so can ensure our future as a free democratic society as well as contribute to both the professional and personal lives of our citizens. We cannot afford to do less. If we could place men on the moon in 1969, we can certainly teach all children to read up to the limits of their potential.

Eddie

When I began teaching in 1958, I had a boy named Eddie in my second-grade class. Although he had had behavior problems in first grade and had already repeated first grade by the time he entered my classroom, he liked me and behaved fairly well for me. However, after two years in first grade, he was still a virtual nonreader. Because I was eager to help him learn to read, I had him come to my house every Saturday morning, where I gave him free extra help in reading—more of the same instruction at which he had already failed for two years. Although we frankly made no progress with his reading, he enjoyed his Saturday mornings with me. However, he left my second grade still a virtual nonreader. Since he had already been retained once, he was promoted to third grade where he again had bad behavior problems. When I left town three years later, he was still a nonreader and had bad behavior problems, although he always seemed to like me. I often wonder what became of Eddie. Today I could have helped him learn to read since I now know that he undoubtedly was learning-handicapped—a boy of average intelligence who needed some of the special strategies and materials such as those contained in this *Handbook* to help him learn to read successfully. The entire field of learning disabilities was unknown at that time. Yes, we have made progress in effective reading instruction in the years since I taught Eddie, but we still can make more progress.

Why Educational Reform Has Not Been More Successful in Improving Reading Instruction

In Illinois, the state in which I live and teach, the legislature passed a comprehensive educational reform package in 1985, which mandated that school districts formulate educational goals and have additional testing in all of the subject areas. This legislation is undoubtedly fairly typical of that passed in many other states and provinces in recent years, yet it does not seem to have improved reading instruction very significantly.

For one thing, the legislation often is not accompanied by financial support. Indeed, in my state financial support for all levels of education has decreased significantly recently. This educational reform instead placed even more emphasis on reading testing than there was already. At the present time, for example, third graders in Illinois may well be tested for two solid weeks every April. They are given standardized achievement tests, the Illinois Goal Assessment Program (IGAP), a process-oriented measure of reading comprehension, and basal reader tests. Such extensive testing is simply not going to solve our reading problems.

The legislators apparently assumed that such testing would assure accountability on the part of teachers, making certain that they teach the requisite skills. Instead, many teachers are being forced to “teach for the tests.” They feel great pressure for their students to achieve good scores on the reading tests that they take.

Such an emphasis on test scores is misplaced. Any test score is only a representation of how well a student scored on a certain day and is subject to error in many different ways. In addition, a reading test often does a poor job of evaluating implicit (higher-level) reading skills, and it cannot measure a student’s interest in reading for either information or pleasure. For these reasons, educational reform as it now exists is not going to solve the problem of many children with reading disabilities. Legislators seem to have suggested a fairly simplistic solution—more state-mandated goals and testing—to the very complex issue of effective reading instruction.

How Elementary Reading Instruction Can Be Made More Effective

Reading is a complex process, and teaching reading is likewise complex. Very briefly, however, here are some things that can be done to help ensure that reading instruction is more effective for *all* children in today's elementary schools.

- Provide preservice reading teachers with the best possible preparation, including classroom-proven effective teaching strategies, appropriate ways to individualize reading instruction, and much actual classroom teaching experience.

- Give inservice teachers access to many different effective techniques and ready-to-duplicate materials which can be used to teach reading to different kinds of students. There simply is no method or type of material that will be effective in teaching reading to all children. The more knowledge and resources a reading teacher has in his or her repertoire, the more effective a job he or she is likely to do.

- Give reading teachers access to a wealth of classroom-tested reading materials which they can use in appropriate ways with large groups of students, small groups of students, and on an individual basis. Such materials can take the form of quality children's literature of various types, basal readers, basal reader workbooks, phonic materials, ready-to-use activity sheets of various types, commercial and teacher-made games, and computer software.

- Keep class size as small as possible for effective reading instruction. Twenty students should be the maximum in the primary grades and twenty-five students should be the maximum in the intermediate grades. Unfortunately, class size generally is becoming larger, not smaller, due to budgetary constraints that cause teacher cutbacks.

- Provide more support for reading teachers. Contemporary teachers often function under more stressful conditions than teachers faced in the past. They may well have too little support from either parents or administrators. Their efforts may go unappreciated, causing them to teach reading more ineffectively than they might under optimum conditions. In addition, a number of children just do not have the discipline or supervision today that they did in the past. They therefore are more difficult both to control and motivate. In urban schools these problems obviously are especially severe.

- How can a teacher teach reading effectively when he or she must spend the majority of the school day trying to control the children? It is vital for reading teachers to have as much support as possible from both their administrators and parents. In their educational programs, administrators must be taught the strategies and materials that constitute an excellent reading program and must be impressed with the importance of supporting and valuing their teachers' efforts. There must be a concerted effort to involve parents positively with the schools, in such ways as letters of information concerning school activities, supportive telephone calls, helpful teacher-parent conferences, paid and unpaid parent helpers in the school, parent education groups, and sending sample reading strategies and materials home. Of course, these suggestions require time, money, or both and are not easy to implement.

- Encourage parents to provide a print-rich home environment and a positive reading model to help their children achieve up to the limits of their reading potential. They should also be encouraged to read to their children on a regular basis and to encourage their older children to read to them at home. Children should obtain a library card, and parents must be told how vitally important it is for them to model and encourage reading both for pleasure and for information.

- Parent education programs and other programs that involve teachers, parents, and children as *partners* in their child's reading progress are absolutely essential in an effec-

tive reading program. This, too, is difficult to implement in our contemporary society of working parents and single-parent families, a society that does not place much emphasis on the value of education. Why do you suppose that children in Japan, for example, achieve so well in school? It is mainly because education is held in such high esteem there.

- Make available unique strategies and materials which teachers can implement with learning-handicapped children to ensure the optimum amount of reading success with them. The appropriate use of these strategies and materials with my student Eddie, whom I mentioned earlier, undoubtedly would have resulted in his reading success and perhaps even in success in life for him.

- Implement early intervention programs that prevent reading disabilities. Programs like *Reading Recovery* (explained in detail in Chapter 5) and other programs are cost effective and efficient in the long run when weighed against the emotional problems that have already occurred by the time a student has had a significant reading problem for some time. A number of the strategies and materials described in the Reading Recovery Program also can be implemented in other corrective reading programs. Diagnostic-prescriptive reading instruction specifically geared toward a student's diagnosed reading difficulties would also greatly improve the effectiveness of elementary reading instruction.

- Use Regular Education Initiative (REI) to help mildly handicapped children achieve more success than they might experience in a special classroom for the handicapped, especially if they are older and would feel the stigma of being singled out for the special placement. A number of such children prefer pull-out programs for their special help. If children who are mildly handicapped or slow learning are to remain in the regular classroom, such teachers need to have access to special strategies and materials which can be used with them to effectively teach reading skills.

The *Complete Reading Disabilities Handbook* should help you implement some of the previously stated ways of improving reading instruction. It provides both preservice and inservice teachers with classroom-tested reading strategies and ready-to-use materials to diagnose (assess) and correct many different types of reading disabilities. It also provides unique strategies and materials that you can use with learning-handicapped children in both regular and special classrooms. Unfortunately, this resource cannot improve a child's home environment or the involvement that his/her parents have with the school. These tasks must be left to other means.

Major Causes of Reading Disabilities _____

Educational Factors

Illustration: _____

Jamie is a student in Ms. Fassino's third-grade class. He always has had great difficulty in identifying sight words and has not yet mastered all of the words on the Dolch Basic Sight Word List. He also does not seem to have an effective method of attacking an unknown word when he meets it. He usually just guesses at the unknown word without paying any attention to it except perhaps to the initial consonant. Often the substituted word does not make sense in the sentence, but Jamie does not stop to self-correct—he just attempts to read on without appearing to be concerned. He also has difficulty with comprehension, probably because he miscalls so many words due to his poor stock of sight words and his ineffective method of identifying unknown words. Ms. Fassino often becomes frustrated

with Jamie because he simply cannot seem to remember the important sight words. What is especially frustrating to her is he can identify a sight word one day but will have forgotten it by the next time that he sees it. He also is fairly distractible, often has a short attention span, and is somewhat hyperactive.

Hypothesis: From examining this brief summary of Jamie and his reading problems, it is fairly obvious that one major cause of his reading difficulties probably is *educational*. Jamie may well be mildly learning handicapped and has not been provided with the appropriate reading strategies and materials to enable him to experience the reading success which should be possible for him. Perhaps he would not have the present reading disability if he had used tracing (kinesthetic) strategies with some of the especially difficult-to-retain sight words in first grade, predictable books, the language-experience approach, a well-structured, meaningful phonic approach, and activity sheets that have been especially designed for learning-handicapped students. (See Chapters 5 and 7.) Instead, Jamie was taught with the use of the basal reader approach with insufficient repetition of sight words, taught the basic phonic skills at too fast a pace for him, and taught too few of the phonic elements and generalizations in a slow, meaningful manner with concrete repetition.

NOTE: Educational factors of various types undoubtedly are the most common cause of reading disabilities in contemporary elementary schools. There are various educational factors that unfortunately can lead to reading problems. The following explores most of these factors.

What Can Happen When Reading Skills Are Taught Prematurely

One educational factor is that of presenting a formal reading program before the child is ready. *Emergent literacy* states that literacy instruction actually begins at birth and that the preschool and kindergarten programs should be a continuation of this instruction. However, children in kindergartens today are often presented with formal, structured reading programs for which they simply are not ready. Children from a privileged home environment with well-developed emergent literacy skills undoubtedly will not be harmed by such a formal program, most of which emphasize the teaching of isolated phonic elements. However, this may well not be the case for learning-handicapped children, immature children, slow-learning children, children who come from homes that did not provide a print-rich literacy environment or much prior knowledge, or children with poor auditory discrimination.

If any such children are presented with a formal reading program in kindergarten or beginning first grade before they have the requisite emergent literacy skills to profit from it, they are likely to fail almost as soon as they begin. Since a number of the reading skills are then presented in a developmental manner, such children may well fall farther and farther behind as new reading skills are presented. When a child fails to make adequate progress in reading, he or she usually develops a negative self-concept and a dislike for all reading activities, which makes it even more difficult for him or her to achieve reading success. Thus, such a child may well become disabled in reading for the rest of his or her life unless he or she receives some type of intervention either in school or at home.

However, because of the emotional difficulties that usually are the result of reading disabilities, it often becomes very difficult for such a child to make good reading progress. Thus, it is much more practical to prevent reading difficulties than it is to try to correct or remediate them. The Reading Recovery Program described in Chapter 5 is an early intervention program. In any case, an emergent literacy program always should progress forward for the child's present attainment of emergent literacy skills.

What Can Happen When a Child's Unique Reading Needs Are Not Taken into Consideration

Another fairly common education-related cause of reading disabilities is *inappropriate reading instruction*. This generally involves the use of an initial reading program that is not compatible with a child's unique needs or weaknesses. The majority of above-average and even average children probably can learn to read effectively by almost any combination of reading strategies and materials. However, this is often not true for children with unique needs, such as learning-handicapped children, children from an impoverished home environment, children with emotional problems, or children of below-average intelligence.

For the majority of children the optimum beginning reading program should consist of continuing the child's emergent literacy skills, placing emphasis upon learning letter names and letter-sound relationships in as meaningful a manner as possible, dictation using the language-experience approach, process writing, and literature-based reading instruction using predictable books, picture storybooks, and wordless books. Then the majority of the reading skills can be taught by the selective use of literature-based reading instruction, the basal reader approach, and perhaps a meaningful phonic approach if the student has the requisite auditory discrimination skills to succeed in such a program.

However, some students present unique problems that cannot be accommodated by the recommended reading strategies and materials just summarized. Most of the emergent literacy skills are beneficial for the vast majority of children. However, some children with inadequate auditory discrimination skills are taught too many phonic elements and phonic generalizations in a formal phonic program that deemphasizes comprehension. This may cause such students to focus too much on word pronunciation while paying little attention to comprehension, the heart of the reading process. On the other hand, some learning-handicapped students or perhaps slow-learning students may profit from an extensive program of phonic analysis presented in a structured manner with much concrete reinforcement.

At the beginning stages of reading, some students make the most progress with the use of *tracing strategies* or *kinesthetic approaches* that stress the sense of touch as an aid to word identification. Such tracing can take the form of a sand tray or salt tray, the use of instant pudding, shaving cream, sandpaper letters, macaroni letters, sandpaper letters, felt letters, glitter letters, or rice letters. (See Chapter 5.) Since tracing is a very time-consuming way of teaching sight words, it should be mainly used only at the beginning stages of reading instruction with children who seem to have severe difficulty in retaining important sight words. When used in this manner, it can be extremely effective for some children.

There is no one best method for presenting reading instruction to intermediate-grade students. For most of them a combination of approaches probably is the most effective. Most children of this age should have a predominantly literature-based reading program with many opportunities to read both narrative and expository materials on their instructional and independent levels. The basal reader approach may be used in a *very* selective manner, and the specialized reading skills that are required for effective reading of content materials should be taught and practiced. Chapters 5 and 6 contain a multitude of strategies and materials for use with intermediate-grade students.

Learning-handicapped students at this level need to be presented with strategies and materials that have been especially designed for them. Such strategies can take the form of a phonic program or various kinesthetic (tactile) approaches. Chapter 7 also contains a number of special techniques and materials that can be used with intermediate-grade learning-handicapped students.

In their book *Reading Difficulties: Instruction and Assessment* (New York: Random House, 1988, pp. 41-42), Barbara Taylor, Larry A. Harris, and P. David Pearson describe a teaching strategy that may be appropriate for use with a number of different reading approaches. Very briefly, it involves the following five steps:

1. Modeling
2. Guided Practice
3. Consolidation
4. Practice
5. Application

It is very important for you to be knowledgeable about the multitude of different reading strategies and materials. Only then can you present the most effective reading program for all the children in your trust.

What Results When Reading Instruction Is Not Presented at the Proper Pace

Improperly paced reading instruction is another factor that can result in reading disabilities. Sometimes reading instruction is presented at too rapid a pace without sufficient reinforcement of the important sight words and phonic elements. This undoubtedly is especially true with learning-handicapped children, children from an impoverished home environment, or slow-learning children. Such children often are not given enough meaningful reinforcement in the basic sight words and crucial phonic elements to attain mastery of them. This may well be the case in the basal reader approach and also in some phonic approaches. Therefore, the student does not attain mastery of these vital reading skills before being expected to learn additional important reading skills.

In addition, the basal reader approach and sometimes the formal phonic approach feature the use of reading achievement groups. Although the accompanying manuals emphasize that such groups should be flexible enough to encourage children to move from group to group as they progress in the reading skills, in practice the groups usually become quite rigid, and the child who is placed in the below-average group in first grade usually remains in that same group through sixth grade. Students in the below-average group often feel stigmatized and develop a negative self-concept about reading and all reading activities.

Sometimes the grade-level designation of the reading materials determines their use in a particular grade. For example, all children in a third grade are required to read a certain reader whether or not it is appropriate. This then holds back the above-average readers who may become underachievers who are not challenged and thus lose interest in reading. Perhaps even more unfortunate, this practice causes children in the below-average reading group to consistently attempt to read at the *frustration reading level*, which undoubtedly is one or more years above their actual reading level. Some children have spent their entire school career reading at the frustration reading level, causing them to dislike reading activities since they never are able to experience success with it. Fortunately, this practice does not occur as frequently in elementary schools today as it did in the past, but even now it is not uncommon in the intermediate grades where the reading range may vary from that of nonreader to the secondary school level.

What Results from the Use of Large Classes

Large classes in the elementary school, especially in the primary grades, are not conducive to optimum reading achievement. No primary-grade classroom should have more than 20 pupils, while an intermediate-grade classroom should not have more than 25 students. Unfortunately, in a time of budgetary constraints and teacher cutbacks, these optimum class sizes often are not achieved.

However, diagnostic-prescriptive individualized reading instruction should be maintained as much as possible to ensure optimum reading achievement. Such a reading

program always should stress a student's strengths, while attempting to compensate for his or her weaknesses. In addition, the reading program should provide as much individual attention as possible and should teach to the child's preferred modality (channel), as may be the case with learning-handicapped children.

Why the Teacher-Pupil Relationship Is So Important

One of the most important factors that influences a child's reading success both in the classroom and in tutoring sessions is the *teacher-pupil relationship*. The significance of this relationship is indicated by the following statement from *Becoming a Nation of Readers* (Washington, D.C.: National Institute of Education, 1985, p. 85) by Richard C. Anderson, Elfrieda H. Hiebert, Judith A. Scott, and Ian A. G. Wilkinson:

Studies indicate that about 15 percent of the variation among children in reading achievement at the end of the school year is attributable to factors that relate to the skill and effectiveness of the teacher . . . In contrast, the largest study ever done found that about 3 percent of the variation in reading achievement at the end of the first grade was attributable to the overall approach of the program.

The teacher-pupil relationship is very difficult to describe because it varies so much. Most children make the best reading progress when the teacher provides a warm, supportive, positive environment, removing great pressure from learning to read. On the other hand, a few children seem to require a much firmer teacher who will command their respect, since they need some degree of pressure to apply themselves to the difficult task of learning to read. Certainly, some children, perhaps especially in inner-city environments, have had many teachers who did not expect them to be able to perform well in school; their students have, in return, given them little in the way of reading achievement. Research has found that the self-fulfilling prophecy frequently applies in the classroom. A student often will respond only up to the limits of what his or her teachers expect.

In their book *Assessing and Correcting Classroom Reading Problems* (Glenview, Illinois: Scott, Foresman and Company, 1988, pp. 69–71), J. Estill Alexander and Betty S. Heathington have described twelve characteristics that they believe good teachers of reading should possess:

- Effective reading teachers are teachers who read.
- Effective reading teachers have a positive sense of self-worth, especially about helping others.
- Effective reading teachers are knowledgeable.
- Effective reading teachers have a genuine affection for learners, apparent in both word and deed.
- Effective reading teachers are enthusiastic and communicate their enthusiasm to problem readers.
- Effective reading teachers accept learners as they are—their feelings, their emotional needs, and their values.
- Effective reading teachers are open and flexible, giving learners the opportunity to make suggestions regarding their own welfare.
- Effective reading teachers are warm and cooperative.
- Effective reading teachers have confidence in the learner's ability to improve his or her reading skills.
- Effective reading teachers are empathetic, not sympathetic.

- Effective reading teachers value diversity in learners.
- Effective reading teachers are structured and consistent in behavior.

In *How to Increase Reading Ability* (New York: Longman, 1990, p. 356), Albert J. Harris and Edward R. Sipay state that unsuccessful reading teachers may employ some of the following practices:

- failing to ensure readiness for learning a new skill or strategy
- instructing a child at too fast a pace
- using materials that are too difficult for a child
- giving pupils insufficient thinking time
- failing to give approval for a correct task
- expressing disapproval for a child's mistake
- asking a child to perform a task that he/she cannot do well in front of others

Characteristics an Elementary School Should Possess to Maximize the Chances of Reading Success

Research has discovered that optimum reading achievement occurs in elementary schools that possess several important characteristics. The more time spent on reading instruction, the better the reading achievement normally will be. However, this presupposes that the time spent on reading instruction is devoted to *quality* instruction such as literature-based reading instruction, meaningful reading of narrative and expository materials with predictions made before reading, and comprehension emphasized in various ways after reading instruction. It does not mean the extensive use of workbook pages, for example, just to keep the students busy and quiet.

Taylor, Harris, and Pearson (1988) state on page 40 in their book that good readers complete more contextual reading and spend more time in silent reading than in oral reading. Thus, oral reading should receive little emphasis in their program after the initial stages of reading instruction. On the other hand, they stated that lower readers demand more teacher time and task monitoring with feedback than do good readers. Because a number of teachers do not really enjoy teaching below-average readers, they may not always receive the time and attention from the teacher that they require.

Reading instruction also must be taken seriously by both the teacher and the pupils for the optimum amount of reading progress to take place. It also is very important for an elementary school to have a principal who is knowledgeable about reading instruction and who supports his or her teachers in innovative as well as in traditional practices that may lead to improved reading achievement. Obviously, there must be sufficient discipline in a classroom for reading instruction to take place. This certainly does not imply a totally quiet classroom, but rather a well-organized, professional classroom.

Other Educational Causes

There are a few other school-related causes for reading disabilities that should be mentioned. If a child has missed a great deal of school especially during the primary grades or has moved a great deal during that time, it may be difficult for him or her to make the optimum reading progress possible unless he or she is linguistically adept or has had special reading help of some type.

A Brief Summary

Educational factors of some type undoubtedly are the most common cause of reading disabilities. Fortunately, a number of these factors could be changed to result in improved reading achievement if the schools and society would work together to attempt to do so. The vast majority of children in contemporary elementary schools could learn to read at least effectively enough to function in our society, if they had well-trained teachers and well-equipped schools and a society that recognizes the worth and necessity of that learning. We really cannot afford to do less than this for our children.

Visual Defects**Illustration:**

Jay is a boy in Ms. Coe's first-grade classroom. Although it already is February of his first-grade year, Jay still is having difficulty in learning to read. Ms. Coe has noticed that Jay still reverses a number of letters such as *g* and *q*, *b* and *d*, and *p* and *q*. In addition, he reverses simple words such as *stop* and *spot*, and *was* and *saw*. Jay often also loses his place while attempting to read, occasionally skipping an entire line of print even in simple tradebooks. In addition, he has great difficulty with workbook pages and activity sheets that have a number of items on them and seems to do better with such sheets when they are relatively simple. Since his visual acuity was evaluated at the beginning of first grade and was found to be normal, Ms. Coe suspects that Jay has a *visual perception defect*, not a vision defect, which may well be interfering with his making satisfactory progress in learning to read.

Hypothesis: From examining this very brief summary, it seems obvious that Jay undoubtedly has a *visual perception problem*. He also may be *learning handicapped*, since visual perception problems often accompany a learning disability in the early stages of reading. Special strategies and materials should have been employed with Jay in his reading instruction in preschool, kindergarten, and early first grade. Fortunately, it is not too late to provide these, although it will be more difficult for him to catch up with his peers than it would have been if this intervention had been provided earlier. Some ideas and materials for providing such intervention are provided in Chapter 5.

Note: Various kinds of visual defects are considered by reading specialists to be the most common of the physical problems that are related to reading achievement. Such defects are usually placed into two main categories—*visual perception problems* and *vision defects*.

Visual Perception Problems

Visual perception can be defined as the selection and organization of the various sensory data people meet in their environment. There seems to be a relation between visual perception ability and reading achievement, especially if the perception of both letter names and sight words is stressed in the initial reading problem. Research has shown that visual perception tasks that stress letter identification (discrimination) and sight-word identification (discrimination) influence primary-grade reading achievement much more than does the discrimination of geometric forms. Therefore, you should use geometric forms and patterns of some type *only* with the child who is very weak in visual perception ability along with other visual perception activities such as those suggested in

Chapter 5. Visual perception difficulties are somewhat common among learning-handicapped children and slow-learning children.

Common Vision Defects

Research has found that vision difficulties contribute to reading disabilities about 50 percent of the time to some degree. Some children with inadequate vision can become average or even good readers because they are able to compensate for their vision defect. However, all children should have regular vision testing and appropriate corrective measures. No child should have to face the task of reading with inadequate vision.

A first-grade child must have adequate near-point vision to be able to see the printed words on the page. Sometimes the eye muscles are not finely enough developed to allow children to have adequate near-point vision when they enter first grade. Although these muscles normally develop later, reading problems can result in first grade if children are asked to do an excessive amount of book reading before they are visually ready to do it. For such children, the extensive use of the language-experience approach with its large charts and Big Books may be especially helpful.

Myopia (Nearsightedness). The most common visual defect in elementary-school children is *myopia*, or *nearsightedness*. This is a refractive error that causes students to hold the book close to their eyes to be able to read the print without its blurring. It also causes children difficulty in seeing the words written on the chalkboard unless they are seated near the front of the classroom. A myopic child always should be fitted with corrective contact lenses or eyeglasses because such a vision defect causes headaches, blurred vision while reading, and difficulty in reading as effectively as possible without great effort.

Hyperopia (Farsightedness). Although found less frequently among children than adults, the other fairly common vision defect is *hyperopia*, or *farsightedness*. This also is a refractive error which probably influences reading problems more than any other vision defect. Farsighted children have some difficulty with near-point vision such as is required in reading since they must move the material away from their faces to be able to read it.

Lack of Binocular Coordination. Another vision defect which occasionally causes reading problems is a child's lack of fusion of the two eyes. When a reader looks at a printed page, he or she sees two images, and the eyes must be able to fuse or join the two images into one image if he or she is to be able to see the printed words clearly. This lack of *binocular coordination* or *fusion* usually occurs in young children and may be corrected by the child's doing the eye exercises recommended by an ophthalmologist or an optometrist. Binocular fusion can be tested by using one of the devices described later in this section.

Astigmatism. *Astigmatism* is also a refractive error and usually exists with either myopia or with hyperopia. This vision defect causes the print to be blurred and therefore results in eye fatigue. Astigmatism also often results in headaches which make it difficult to concentrate on reading.

Aniseikonia. A fairly uncommon vision defect is called *aniseikonia*. This is a condition in which the eyes have a different size or shape in the image of an object in each eye. When there is no difference in the refractive error of the two eyes, the difference in image size is due to a different physical size of the eyeball. A student with this vision defect would have difficulty fusing and thus have difficulty in learning to read.

Some Ways to Test Visual Acuity

The old *Snellen Chart* is not adequate for judging vision for reading instruction since it tests a child's sight at far-point instead of at near-point as is required in reading. Neither does it evaluate the fusion ability of a child. The vast majority of elementary schools today do vision testing using one of the following types of instruments:

Keystone Complete School Vision Screening Program
Mast/Keystone
2212 East 12th Street
Davenport, IA 52803

Ortho-Rater
Bausch & Lomb Optical Company
Rochester, New York 14602

School Vision Tester
Bausch & Lomb Optical Company
Rochester, NY 14602

Titmus II Vision Tester—Pediatric Model—Preschool and Primary
Titmus
Ophthalmic Products Division
P.O. Box 191
Petersburg, VA 23804

You also may gain some clues to possible vision problems by using the A-B-C's of vision: (a) the *appearance* of the eyes—redness, watering of the eyes, or frequent styes; (b) the *behavior* of the child—signs of nervousness, how far the book is held away from the eyes, and the posture of the body; and (c) the *complaints* of the child—frequent headaches, seeing double, blurring of the printed material, and nausea.

Joan M. Harwell has included a very useful "Educator's Checklist of Clues to Visual Problems" in her book *Complete Learning Disabilities Handbook* (West Nyack, New York: The Center for Applied Research in Education, 1989, pp. 207–208) that helps you observe vision defects and visual perception deficits in the following areas:

- appearance of the eyes
- complaints when using the eyes at work
- behavioral signs of visual problems such as eye movement abilities, eye teaming abilities, eye-hand coordination abilities, visual form perception, and refractive status

Auditory Defects

Illustration: _____

Rita is a second-grade girl in Ms. Bellott's classroom who has had great difficulty in learning to read. Even in the second grade she only reads at about the primer level. Her first-grade class was taught reading skills with the formal phonic program *Alpha One*, and she also was taught beginning reading skills in kindergarten using *Alpha Time*, a phonic

readiness program. She never has been able to differentiate effectively between the various phonic elements, especially the short vowel sounds. This was extremely frustrating both to Rita and her teacher since the various phonic elements were presented in many different ways such as letter people, teacher-constructed and commercial games, and activity sheets. Rita has learned some environmental words by sight. The language-experience approach, Big Books, and predictable books were not used with her.

Hypothesis: Rita undoubtedly had poor auditory discrimination in kindergarten but nonetheless was required to try to learn letter-sound relationships through the formal phonic program mandated for use in her kindergarten. It is very likely that her teacher used the program in the prescribed way, not modifying it for Rita in a way that might have assured her some degree of success. She should have had reading instruction in both kindergarten and first grade in ways in which she could have experienced success—by using the language-experience approach, Big Books, predictable books, literature-based reading instruction, extensive use of sight-word teaching, and perhaps a limited use of tactile strategies.

Common Auditory Defects That May Contribute to Reading Disabilities

Auditory defects undoubtedly are less often related to reading disabilities than are visual defects, unless the child is required to learn to read by a formal phonic program when he or she has inadequate auditory discrimination. K. A. Kavale reported a direct, though low, correlation between auditory processing and reading success in an article “The Relationship Between Auditory Perceptual Skills and Reading Ability: A Meta-Analysis” (*Journal of Learning Disabilities*, November 14, 1981, 539–546).

Auditory defects can be divided into two major categories: *auditory acuity defects* and *auditory discrimination defects*. *Auditory acuity* is the ability to hear sounds found in the environment and defects may be related to reading disabilities if there is a high-frequency loss. It is said that about 5 percent of elementary-school children have a significant hearing loss.

Auditory discrimination normally is defined as the ability to differentiate between the likeness and differences in the sounds that are found in oral language. A child with good auditory acuity can have inadequate auditory discrimination. In fact, this is fairly common among disabled readers, especially in kindergarten and the early primary grades.

In his book *Listening: What Research Says to the Teacher* (Washington, D.C.: National Education Association, 1969), Stanford E. Taylor has described three different levels of listening. He states that the lowest level is *hearing*, which refers to the sound waves being received and modified by the ear. Since hearing is a physical phenomenon, it cannot be taught. *Listening* is the level at which a person becomes aware of sound sequences. At this middle level a person is able to identify and recognize the sound sequences as known words if the words are in their listening vocabulary. *Auditing* is the highest level and involves giving meaning to the sounds and assimilating and integrating the oral message. At this level a person is able to perform all the high-level comprehension skills that are usually associated with reading.

Another subskill in this area is *auditory memory* or *auditory span*. It is listening to and then remembering a series of sounds, digits, or words. It is considered to be one element of intelligence and thus is found on the Wechsler Intelligence Scale for Children (WISC-R), an individual intelligence test.

Auditory discrimination and *auditory blending* (the ability to blend a series of sounds into a recognizable word) can well be related to reading progress especially in a reading program that places great emphasis on learning phonic elements and generalizations. As stated earlier, a child with good auditory acuity still may have auditory discrimination

difficulties, but a child obviously cannot have good auditory discrimination ability with inadequate auditory acuity. When a child's acuity is low, his or her reading achievement also may well be low.

A child with poor auditory discrimination should not be taught initial reading skills with a formal phonic approach or even with a basal reader approach that contains considerable phonic elements. A few children are not auditorily mature enough to be taught many phonic elements and rules until they are eight years old. The child with inadequate auditory discrimination should be taught reading using the language-experience approach, Big Books and predictable books, literature-based (whole language) instruction, or a tactile or kinesthetic approach. Sight words should be greatly emphasized with such a child.

A few learning-handicapped children have a weak auditory channel and do not profit from a formal phonic approach, but this may be less common than those children who have a weak visual channel. A few learning-handicapped children are weak in both the visual and auditory channels and need to be primarily taught by a tactile approach, especially at the beginning.

It is interesting to note that even totally hearing-impaired children can learn to read effectively if the proper methods and materials are used. Such approaches often are some variation of the language-experience approach, the basal reader approach, and literature-based reading instruction.

All children in the elementary school must be given auditory screening tests on a regular basis to determine if they have hearing problems. Here is a partial list of audiometers and their manufacturers:

Auditory Instrument Division
7375 Bush Lake Road
Minneapolis, MN 55435

Auditory Instrument Division
Zenith Radio Corporation
6501 West Grand Avenue
Chicago, IL 60635

Beltone Electronics Corporation
Hearing Tests Instruments Division
4201 West Victoria Street
Chicago, IL 60646

Precision Acoustics Corporation
55 West 42nd Street
Chicago, IL 60635

Royal Industries
Audiotone Division
P.O. Box 2905
Phoenix, AZ 85036

The Wepman Auditory Discrimination Test may be of some use in identifying children in kindergarten and first grade and learning-handicapped children who are especially weak in auditory discrimination ability. However, it should be used only as one tentative indicator of auditory discrimination ability along with teacher observation and perhaps other standardized tests. It should not be used with children who do not speak standard English, as they may not be able to differentiate between all of the sounds on this test. Here is the publisher of this device:

Wepman Auditory Discrimination Test

Language Research Associates, Inc.
 P.O. Drawer 2085
 Palm Springs, CA 92262

In *Reading Difficulties: Their Diagnosis and Correction* (Englewood Cliffs, New Jersey: Prentice Hall, 1989, pp. 53–54), Guy L. Bond, Miles A. Tinker, Barbara B. Wasson, and John B. Wasson present the following behavioral characteristics of *hearing impairment* that you may want to watch for:

- Inattention during listening activities
- Frequent misunderstanding of oral directions or requests for repetition of statements
- Turning one ear toward the speaker or thrusting head forward when listening
- Intent gazing at the speaker's face or strained posture while listening
- Monotone speech, poor pronunciation, or indistinct articulation
- Complaints of earache or hearing difficulty
- Insistence on closeness to sound sources
- Frequent colds, discharging ears, or difficult breathing

Learning Disabilities

Illustration:

Jeff is a student in Mr. Bernstein's fourth-grade class who reads at about the second-grade instructional reading level. Even though he can accurately pronounce words at about the third-grade level, he has great difficulty retelling the material or responding to higher-level (implicit) comprehension questions. It is very frustrating for Mr. Bernstein since Jeff sometimes can recognize a word instantly but cannot do so a short time later. He is a boy of above-average intelligence, has adequate visual and auditory acuity, and comes from a stable, middle-class environment. He has never been successful either with reading or spelling, although he is capable in math. Jeff also is somewhat distractible but not excessively so. He has been tested for a learning disability, but since the tests indicated no real evidence of a learning disability, Jeff was placed in Mr. Bernstein's class with no additional help from a learning disabilities teacher.

Hypothesis: From examination of this very brief summary it appears that Jeff is mildly learning-handicapped. Sometimes a learning handicap that is this mild is not easy to ascertain. Jeff should have been presented with reading instruction much earlier using some of the strategies and materials that have been specially designed for learning-handicapped children. A few of these are the following: perhaps a formal phonic approach using tracing strategies as an aid to word identification, other tracing strategies such as a salt tray or a sand tray for especially difficult-to-remember sight words, the language-experience approach, predictable books, or literature-based reading instruction (see Chapters 5 and 7).

At this time, Mr. Bernstein needs to request additional testing for Jeff to see if he can then enlist the help of the learning disabilities teacher in planning a program for him. Meanwhile, it is essential that Jeff be able to practice reading at his independent and low instructional reading levels to develop fluency and so that he can effectively retell the material. He may need to learn some simple strategies for improving both his prediction

and comprehension abilities. He may also profit from the use of medication such as Ritalin®, Dexedrine®, or Cylert®. It is very important that Jeff's reading disability be improved as soon as possible so that he has the best chance of achieving success in school. Much of the material presented in the intermediate grades and above is dependent upon his possession of adequate reading ability with good comprehension.

Learning disabilities are sometimes called *minimal brain dysfunction*, but the latter term is not precise. Learning disabilities are said by some specialists to be a central nervous system dysfunction. Others say that they are the result of brain degeneration. Learning disabilities can also be defined as significant difficulty in the acquisition of listening, reading, spelling, writing, or arithmetic skills.

Sometimes a learning disability is called *dyslexia*, which can be defined as severe reading disability. This term may be used more commonly today than it was in the past. Unfortunately, the term *dyslexia* may also be used with students who simply have a significant, specific reading disability but do not really have a learning disability. A number of specialists in the area believe that educators should use any label for a child very cautiously since the label may cause the child considerable harm.

The estimates as to how many people have learning disabilities varies from as low as 2 percent to over 20 percent. According to Harris and Sipay (1989, page 159), the number ranges from 2 percent to about 4 percent. There also is a continuum of learning disabilities that ranges from mildly handicapped to severely handicapped. A number of specialists in this area prefer the term *learning handicapped* over *learning disabled* since handicap indicates a condition that one should give recognition to, make adjustments for, and allow a person to achieve in spite of (Harwell, 1989, p.3). Since I agree with this, the term *learning handicapped* will be used in this *Handbook*.

Although neurologists have not entirely determined what is involved in minimal brain dysfunction, they have isolated a few basic characteristics. They generally agree that minimal brain dysfunction is not brain damage in the traditional sense but rather is brain functioning that is not completely normal in some way. A learning-handicapped child can be weak in the visual channel (modality), the auditory channel (modality), or in both visual and auditory channels (modalities). Although possible, it is fairly uncommon for a child to be weak in the tactile (kinesthetic) channel.

There are a number of tests that are used by school psychologists to determine whether a child has a learning handicap. Although most of these tests are quite useful, some of them are not completely valid or reliable, and the results from such a test always should be interpreted cautiously. Here are a few tests that are often used in determining a learning handicap:

- Wechsler Intelligence Scale for Children, Revised (WISC-R)
- Wechsler Adult Intelligence Scale, Revised (WAIS-R)
- Tests for handedness, dominance, and knowledge of left and right, such as the Harris Tests of Lateral Dominance
- Bender Visual-Motor Gestalt Test
- Developmental Test of Visual Perception
- Illinois Test of Psycholinguistic Ability (ITPA)

You can get a complete description of these tests from the school psychologist in your school building or school district.

There are a few other factors that you should understand about learning disabilities. It is common for learning disabilities to run in a family, especially among the boys. It is not unusual for a father who is learning handicapped to have one or more sons with the

same condition. The incidence of learning disabilities increase under the following conditions:

- children who experienced postbirth traumas
- children who had neonatal seizures
- children who had chronic ear infections
- children who had head traumas
- children whose mothers experienced difficult pregnancies
- children whose mothers had difficult labors
- children whose mothers ingested alcohol or drugs during pregnancies
- children whose mothers were younger than 16 or older than 40 at the time of the birth

It also is interesting to note that between 60 percent and 80 percent of the students who are classified as learning handicapped have significant reading disabilities.

On pages 6–10 of her book, Harwell (1989) has an excellent checklist you can use in making an assessment of a learning handicapped child. It assesses behavior in the following ten categories with some overlap between the categories:

- visual perceptual deficits
- visual perceptual/visual motor deficits
- auditory perceptual deficits
- spatial relationships and body awareness deficits
- conceptual deficits
- memory deficits
- motor output deficits
- attention deficit disorders
- failure syndrome
- serious emotional overlay

Although it is not possible to mention all of the items contained in this checklist in this *Handbook*, here are several of the items I have most commonly observed in learning handicapped children that you may want to look for. The actual diagnosis of a learning disability must, of course, be made by a team of specialists in an elementary school.

- reversals of letters or words (This is fairly common among children in kindergarten and first grade and should not be thought of as particularly relevant until second grade.)
- cannot copy accurately
- often loses place or skips lines while reading
- reading improves with larger print or fewer distractions on the page
- cannot color within the lines
- illegible handwriting
- letters collide and no space between word boundaries
- mirror writing (hold the paper up to the mirror and you are able to read it)
- messy papers

- difficulty with auditory discrimination
- cannot follow directions
- accident prone
- cannot make closure on an activity
- may do better with word identification in isolation than in sentence context
- has difficulty responding to implicit (higher-level) comprehension questions
- cannot think in an orderly, logical manner
- cannot remember a sight word even a short time after he or she seems able to identify it automatically
- has a limited sight vocabulary
- cannot remember what was just seen or heard
- makes the same error again and again: perseveration
- has difficulty with cutting, pasting, coloring, and writing activities
- cannot sit or stand still
- often falls out of his or her chair
- cannot finish assignments on time
- visually or auditorily distractible
- short attention span
- daydreams or looks out of the window
- rarely completes school work
- disorganized: loses items
- class clown, acting out behavior
- immature behavior: seems to be immature or babyish for his or her age
- lashing out or destructive behavior
- withdrawn
- anxious, tense, or fearful

Denny

While writing this *Handbook*, I recalled a second-grade boy named Denny who I had during my early elementary teaching career. His mother and I became good friends during the school year in which I taught her son. I now am aware as I read this list of behaviors that Denny had the classic profile of a learning-handicapped child. However, in 1959 no one had ever heard of learning disabilities so his handicap went undiagnosed and uncorrected. Indeed, in retrospect, I did everything wrong with him, and he made no reading progress at all in my class.

By 1975, when Public Law 94-142 (which requires that whenever possible, handicapped students be placed in regular classrooms) was passed, learning disabilities were understood fairly well. Today Denny's learning handicap could have been diagnosed before he entered second grade, and he could have been provided with the special strategies and materials that might have enabled him to make good reading progress. Imagine how that could have changed his life for the better. Perhaps medication such as Ritalin®, Dexedrine®, or Cylert® might also have been helpful with Denny.

Language Deficits

Illustration:

Rose is an African-American child from the inner city of a large urban area. She is now in fourth grade and is reading at about the third-grade level. Although she can understand standard dialect and uses it occasionally, she still prefers to speak using elements of African-American dialect in many situations including school. Do you believe that her use of this dialect has contributed to her difficulties in reading?

Hypothesis: If her teacher accepted Rose's language and emphasized reading for meaning instead of concentrating on word-perfect oral reading, it is doubtful that her lower-than-grade-level reading achievement is primarily due to her use of African-American dialect. On the other hand, if her first- and second-grade teachers emphasized word-perfect oral reading, Rose's dialect certainly may have contributed to her reading difficulties. Another contributing factor might be a lowered self-esteem if the African-American dialect were criticized. Some people believe that the differences between African-American dialect and standard dialect are becoming greater, not less, than they were in the past. However, it is the responsibility of the school to model standard English and attempt to teach it at least as an alternative language to African-American dialect, without negating the child's own language or heritage.

Common Language Deficits or Differences That May Contribute to Reading Disabilities

In some instances oral language and dialect differences can be a contributing cause of reading disabilities. A child normally cannot learn to read effectively unless he or she has a good command of oral language. This is one reason that non-English speaking children usually learn oral English before trying to learn to read in English. The child who has a poor command of oral English usually will have difficulty in learning to read. However, it is important to remember that a child might have reading problems even if he or she speaks English well. The lack of standard English oral language may compound, not cause, the reading disability.

However, language deficits and differences certainly may be a contributing factor to reading disabilities for a number of children. Some examples of these are as follows: the non-English-speaking child, a child who speaks a nonstandard dialect, a mentally handicapped child. Normally the true bilingual child does not have significant problems because he or she is fluent in spoken English as well as the native language. Phonic analysis may be especially difficult for children with language deficits or differences as the sounds are not heard as they are in English.

In summary, it may be somewhat difficult for speakers of a nonstandard dialect to learn to read if their oral language does not match the language found in their reading materials. However, by the time a child enters kindergarten, he or she usually has a good understanding of standard oral English, primarily because of the influence of television. In any case, it may be advantageous for such a child to use the language-experience approach so that his or her reading materials can match the oral language.

Dialects or *accents* from different areas may also have some relation to reading disabilities, especially if phonic elements are strongly emphasized in the reading program. For example, most formal phonic approaches and the phonic elements contained in basal readers are based on standard English, which is considered the "prestige" dialect in the United States. If a child does not use this dialect, some of the phonic elements may be very difficult for him or her to differentiate. For example, my father came from western Penn-

sylvania, where the word *creek* was pronounced as if it were spelled *crick*. How could he possibly mark the first *e* in this word long when he did not hear it that way? This regional dialect or accent difference may cause the most difficulty for children from the South or the Northeast areas of the United States where the accent diverges the most from the standard dialect.

Speech defects such as improper articulation, lisping, or stuttering may be related to reading problems. However, speech defects are probably not a very common cause of reading disabilities. If a child cannot articulate the sounds in exactly the way in which his or her teacher does, that child may have some difficulty with phonic analysis.

If a child stutters or stammers, he or she will certainly dislike reading orally. Children who stutter may also develop low self-esteem, which may make it more difficult for them to learn to read effectively.

Gender Differences

In the United States a child's sex has been related to reading disabilities. As you undoubtedly are aware, many more boys than girls in this country have reading problems. From 60 percent to 90 percent of the students referred for special reading help in Chapter I reading programs or in reading clinics are boys. The same can be said for boys in France and Japan. However, in Germany, boys normally do better in reading than do girls. In Canada, girls are the better readers, while in England, boys are the better readers. On Israeli kibbutzes, boys and girls are about equal in reading achievement.

There may be a number of cultural reasons why boys in the United States and Canada do not achieve as well in reading as do girls. For example, primary-grade boys often are less mature than girls of the same age and thus not as proficient in emergent literacy skills. Girls generally do surpass boys in verbal ability, while boys usually have better developed mathematical skills. However, since the 1970s boys have gained in verbal ability, and still maintain their superiority in mathematical skills. Often boys are thought by their teachers to be more energetic, vigorous, and difficult to control. There also may be more language interaction with girls than with boys, both in the home and in school. In addition, boys may look upon reading as feminine and thus not particularly desirable.

In the United States girls did better at ages of 9, 13, and 17 on each of the five NEAP assessments than did boys.

In summary, gender differences in reading achievement may be an example of a self-fulfilling prophecy, in which teachers in the United States and Canada seem to expect girls to learn to read more effectively than they do boys. However, as mentioned earlier, learning disabilities that may result in reading disabilities are much more common in boys than they are in girls. The entire area needs additional research before definitive conclusions can be drawn about the relationship between gender and reading achievement.

Health Problems

General health may be related to reading progress in several ways. For example, if a child is *malnourished* or *chronically fatigued*, it obviously will be more difficult for him or her to learn to read effectively than it would be under optimum conditions. Often a child cannot concentrate in school because of poor nutrition in the home. Such a child may lack drive and energy. Malnutrition in the home can be combated by school breakfast, milk, and lunch programs. A number of children watch television much later on school nights than they should. Although parents should try to limit late-night television viewing, this often is not done, since television is a convenient babysitter for tired, overworked parents. As everyone knows, there are far too many children in contemporary society who are living below the poverty level and in less-than-ideal circumstances.

A number of *illnesses* such as frequent colds, asthma, tonsillitis, diabetes, allergies,

headaches, and upset stomach can result in frequent school absences that in turn may lead to reading problems because of missed instruction. This may be especially crucial in first and second grades. Since reading normally is taught in a fairly developmental manner, missed instruction at any stage can result in reading disabilities.

There are a few genetic factors that may be related to reading disabilities. For example, a number of poor readers have poor coordination and appear awkward while walking or running. As another example, Sadie Decker and Bruce G. Bender evaluated the reading abilities of both fraternal and identical twins and found that where reading difficulties occurred in one fraternal twin, only 50 percent to 65 percent of the time did the difficulties occur in the other fraternal twin. On the other hand, when the disability occurred in identical twins, 80 percent to 90 percent of the time the disability occurred in both twins. (See their article, "Converging Evidence for Multiple Genetic Forms of Reading Disability" in *Brain and Language*, 33, March 1988, pages 197–215.)

An *endocrine* or *glandular malfunction* may occasionally contribute to reading problems. This probably is the case with less than 10 percent of the reading disabilities. You might see a child with *hypothyroidism*, meaning that the thyroid gland does not function as well as it should. This can result in his or her behaving in a sluggish, tired manner that makes it difficult for him or her to profit from reading instruction. On the other hand, *hyperthyroidism* occurs when the thyroid gland functions too much. Children with hyperthyroidism are overactive and thus may have difficulty in concentrating on reading instruction. Malfunctions of the thyroid gland often can be corrected by proper medication.

To summarize, physical problems may well have some relationship to reading disabilities. However, often they are more likely to be a contributing factor to reading difficulties than they are to be the sole cause.

Intellectual Causes

Illustration:

Marty is a student in Ms. Jefferson's second-grade class. As a result of teacher observation and basal reader tests, he apparently reads on about the middle first-grade level. He can identify some sight words and understands the most relevant phonic analysis skills which have been presented to him. Marty can answer literal (explicit) comprehension questions fairly well but has great difficulty making predictions about story content, retelling a story, and answering interpretive (implicit) comprehension questions. He does not enjoy reading for pleasure. Although he generally is well behaved, Marty daydreams more than he should in school, especially when he finds his tasks difficult. Although he is quite well coordinated, he seems a little slower than most other second-graders in his actions and in learning. Do you believe that he probably has a reading disability?

Hypothesis: Although it is difficult to be certain from this brief summary, it appears that Marty probably is a child with below-average intellectual ability who may be performing at or perhaps even above his potential level. To be certain of this diagnosis, the school psychologist would have to give Marty an individual intelligence test such as the Wechsler Intelligence Scale for Children, Revised or the Stanford-Binet Intelligence Scale, Revised. Some children with below-average intelligence are labeled as disabled readers when they really are not.

How Intellectual Level Can Contribute to Reading Disabilities

While some members of the public think that most children with reading disabilities have below-average intelligence, the fact is that most children with reading disabilities

have either average or above-average intelligence. Success in early reading more often is a product of prior experiences rather than intelligence. The child who has been exposed to a print-rich environment prior to school entrance—such as being read to regularly, being exposed to letter names, simple letter-sound relationships, and environmental print—is likely to do much better in reading than the child who has not.

Intelligence is a combination of innate potential and environmental conditions. This indicates that an optimum home environment certainly can increase a child's intellectual level to some extent. Beginning in the later primary grades, intellectual ability becomes very important to reading success. Certainly from that time on children with high IQ scores are generally among the best readers in a class. However, every reading teacher has known a number of *bright underachievers*. Since reading requires a degree of abstract intelligence, a child with below-average intellectual ability often may have difficulty with interpretive (implicit) comprehension.

It is important for any child with a reading disability to be given a valid *individual intelligence test* by a qualified professional such as the school psychologist. The best such test is the Wechsler Intelligence Scale for Children, Revised. This test has two major components: *verbal*, which is based on spoken or written language, and *performance*, which is based on spatial or numerical relationships. However, some psychologists prefer the Stanford-Binet Intelligence Scale, Revised or the Kauffman Assessment Battery for Children (K-ABC). Since any group intelligence test often evaluates reading ability as well as intelligence, the disabled reader's true intellectual ability is often underestimated on such a test.

Preferred Learning Modality

Sometimes *cognitive style* (the child's preferred *modality* or *method of learning*) is related to his or her reading achievement. Some children seem to learn word identification most effectively by a visual (sight) method and others from an auditory (phonic) approach, while a few children seem to have the most success with a tactile (touch) or kinesthetic approach. Cognitive style is one indication of mental ability. While a child of average or above-average intellectual ability usually can learn to read effectively with either a visual, an auditory, or a combination approach, a learning-handicapped child has great difficulty with word identification and may profit from an emphasis on one or another approach to the virtual exclusion of the others, especially at the beginning stages of reading.

In her book on page 41, Harwell (1989) has included a useful checklist that can help you determine a child's preferred learning modality so that you can provide the optimum method or combination of methods for teaching reading. Very briefly, Harwell has included the following major headings in this checklist. A few of the most important items in each portion of this checklist for you to consider are:

- The Visual Learner
 - learns by seeing
 - readily recognizes words by sight
 - relies on initial consonants or word form for identification
 - has good visual imagery
 - has good handwriting
- The Auditory Learner
 - enjoys talking and listening
 - relies on and is competent in phonic analysis
 - tries to solve problems in a verbal manner

- The Kinesthetic (Tactile) Learner
 - learns most effectively by doing
 - is not competent in spelling
 - has great difficulty in word identification either by sight or by phonic analysis
 - has inadequate oral language
 - does not enjoy reading activities
 - does not seem to use either the visual or the auditory channel effectively

Mental Impairment: How Educable and Trainable Mentally Handicapped Children Should Be Taught Reading

Most mentally impaired children have an intelligence quotient that averages around 80. They often may have great difficulty in a formal beginning reading program upon entering first grade. Instead, such children need informal reading instruction emphasizing the language-experience approach, the teaching of letter names and letter-sound relationships in a slow, deliberate manner with frequent concrete repetition; the teaching of sight words with the same concrete, repetitive instruction perhaps involving tracing strategies; and the use of predictable books, picture storybooks, and wordless books. Each reading skill must be presented and reinforced until the child attains complete mastery of it. Children may have the most difficulty with implicit (interpretive) comprehension because of their sometimes limited degree of abstract intelligence. Such children often respond well to extrinsic motivation such as stickers, graphs of progress, or tokens. They normally can learn to read well enough to attain success in our contemporary society with a well-planned and carefully executed reading program.

Trainable mentally impaired (TMI) students also can attain such a degree of reading success with early intervention and a reading program that builds upon their unique strengths. I am very fond of a sixteen-year-old girl with Down's syndrome who has had intervention of every type since she was about two years old. At the age of sixteen she reads on about the latter third-grade or beginning fourth-grade level with good literal (explicit) comprehension and less good, but fair, interpretive (implicit) comprehension. Her potential reading level probably will be at about the fourth-grade level or a little above. I also have seen the language-experience approach used very effectively with high-school-aged TMI students. Their pictures and self-written stories were typical of children in about the second grade.

Prior Knowledge and Self-Monitoring

It is very important that a child have good prior knowledge and schema if he or she is to be able to comprehend reading material effectively. The child must bring *prior knowledge* to bear on the printed material to be able to comprehend since effective reading is a combination of prior knowledge (nonvisual information) and the printed material (visual information). The more prior knowledge a child has, the less he or she needs to depend upon the printed material. This is why a history major, for example, normally can read a history textbook more rapidly and efficiently than a person who has little background or interest in history. A child's prior knowledge is stored and organized in his or her brain in what is *schema* (the plural is *schemata*). Well-developed schema on a topic greatly improves a child's comprehension. Culturally different children may not possess the prior knowledge and schema required for effective comprehension in the typical reading materials that are found in schools.

It also is important for a child to monitor or evaluate his/her own reading to determine if effective comprehension is taking place. This self-monitoring is called *metacognition*, which simply means “thinking about thinking.” Good readers normally are very effective in metacognition, while disabled readers are not. Such children must be taught and given the opportunity to monitor their own reading so that they know whether they are reading effectively and what to do if they are not. They need to be taught *fix-up strategies* such as those described in Chapter 6 of this book.

The Home Environment and Reading

Illustration:

Amanda is a first-grade child in Ms. Welles’s class. Although she is a beautiful child with big brown eyes and brown braids who first appears well adjusted and happy, unfortunately this is not the case. Amanda was sexually abused (raped) by her own father when she was three, and he cannot contact her, although he is not in prison. She lives alone in a mobile home with her mother. Amanda has had virtually no success in learning letter names, letter-sound relationships, or sight words or even in reading predictable books.

Although Amanda has had counseling since she was raped, she still evidences much maladjustment about the incident. For example, one day she asked me (the college supervisor of her reading tutor) why I always hugged her so tight. Indeed, I had never touched her at all, although I did like her very much and felt that she also liked me. One day she blurted out in her first-grade class: “My father raped me when I was three!”

Hypothesis: It is obvious that Amanda’s extremely difficult home environment had resulted in emotional maladjustment that undoubtedly has hindered her success in learning to read. Although we tried countless interesting strategies and materials with her in the emergent literacy tutoring, we had very little success. We tried tracing strategies, the language-experience approach, simple teacher-constructed reading games, reading storybooks aloud to her, wordless books, picture storybooks, predictable books, prediction activities, and extrinsic rewards—all with very, very little success. It was truly heartbreaking to know Amanda and what had happened in her life already.

Elements of the Home Environment That May Contribute to Reading Disabilities

As stated earlier, far too many children in today’s society live in homes that are less than ideal in terms of being stable, happy, print-rich homes that motivate effective reading achievement. We have tutored a number of kindergarten children, for example, who had never heard a book read to them prior to school entrance or had the opportunity to explore books or manipulative materials of any type. We have tutored children who have come to school unkempt, malnourished, tired, and disinterested. Sadly, we also have tutored children both in kindergarten and elementary school who were sexually abused as early as the age of two. As everyone knows, single-parent families are common today, as are children with divorced parents. We have tutored many children from both types of homes. It may be fairly difficult for one parent to fulfill both parental roles although it certainly is possible.

Many research studies have been done over the years on the relation of the home environment to reading achievement. All of them have discovered that if there are few reading materials and models of adult reading behavior in the home, the result will be children who are “at risk” of reading disabilities. They also have found that children from higher socio-economic homes tend to be better readers than children from lower socio-economic homes. In addition, the studies have found that family values can greatly influence reading achievement. If disadvantaged families place a high value on education, their children are more likely to do well in school. On the other hand, some parents place too

much pressure on their children to succeed, which may cause reading problems. A parent who is overprotective also may cause a child to have reading difficulties. Certainly death and divorce in a family can have a negative impact on a child's reading achievement. As stated earlier in this chapter, it is extremely important to involve parents in their children's education to aid in reading success.

Children from less-than-ideal home environments are found in the inner-city of large urban areas, in rural areas, on Native American reservations, and in virtually every other part of the United States and Canada. Indeed, there are many children from middle-class and upper-class homes who do not have an ideal home environment.

In any case, a number of children enter school with little of the prior knowledge about literacy that other children may possess. Unless they are given compensatory help either before school entrance or upon school entrance, they usually will experience little reading success and will fall farther and farther behind as they progress through the elementary school. Very often in inner-city schools and in schools of other types such as on Native American reservations (for example, the school in northern Wisconsin on the Lac du Flambeau Chippewa Reservation), teachers may expect little in the way of reading achievement. This lack of expectation results in the self-fulfilling prophecy that was mentioned earlier.

Poverty can further influence reading achievement because a poor child may be malnourished, may not obtain adequate testing, may have uncorrected physical problems such as vision, hearing, or dental problems, and perhaps most important, may have inadequate role models in reading. Imagine the potential difference in emergent literacy attainment between such a child and the child who has been read to on a daily basis since infancy, comes from a print-rich home environment, and has gone on many family outings. On the average, which child do you think will achieve more reading success in school?

What are the simple answers to the complex problems of children who come from less-than-optimum home environments? I certainly do not have such answers—I wish that someone did. It is surprising to me that not all such children have significant reading problems. Indeed, some of them make excellent reading progress with the help of well-educated, dedicated reading teachers who are determined to teach them to read up to the limits of their potential. Our society certainly needs to seriously consider how we can afford to waste so many children because of an inadequate education and circumstances which are beyond their control. However, since the children of poverty have no voice or power, their needs are often not taken seriously.

Social-Emotional Causes and Self-Esteem

Illustration:

Rod is a student in Mr. Tucker's fifth-grade class. According to a standardized achievement test given near the end of fourth grade, he is reading at about the middle third-grade level. Although he knows a number of sight words, he does not seem to have an effective method of word attack and does not use context clues effectively or monitor his own reading. In spite of miscalling a number of words while he is reading orally and probably also while reading silently, he has fairly good literal (explicit) comprehension but has considerably more difficulty with interpretive (implicit) comprehension. However, Rod exhibits many symptoms of unsatisfactory emotional adjustment. For example, he acts out, is aggressive and hostile, and is a class clown. His acceptable behavior in school probably influences reading achievement since he often refuses to sit down and complete his work in an acceptable manner. Do you think that his emotional maladjustment has caused his reading disability?

Hypothesis: Although it is impossible to draw definite conclusions without knowing much more about when Rod's difficulties began, the most typical scenario is that he

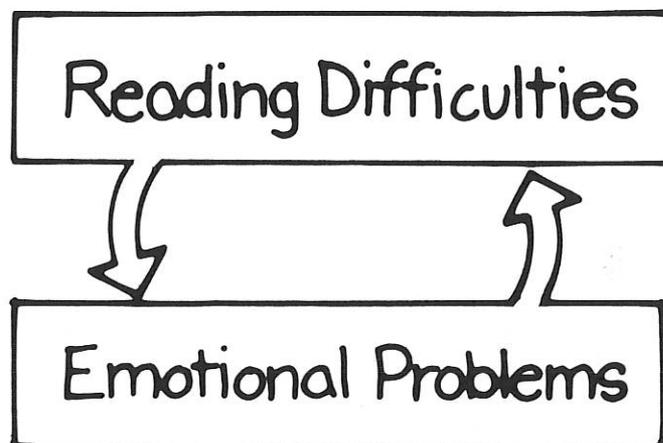
entered school at least fairly well adjusted but began to exhibit emotional problems as a result of his reading disabilities. This may be the case with most disabled readers.

Elements of Emotional Adjustment That May Influence Reading Achievement

Since reading is a very complex process, a number of different factors can impact upon a child's success. One of the more important factors is *emotional adjustment*. The beginning stages of emergent literacy require that a child possess a number of different personality characteristics. Success in emergent literacy usually requires that the child be curious, emotionally mature, responsible, independent, and able to follow simple directions. If a child does not possess one or even several of these characteristics, it does not necessarily follow that he/she will develop reading disabilities. However, normally a child should possess many of these personal characteristics to achieve reading success.

Most children enter school expecting to learn to read effectively if they indeed do not already know how to read and write as a result of the emergent literacy experiences to which they have been exposed at home. In addition, most students enter school with a sufficient degree of emotional adjustment to be able to learn to read and write up to the limits of their potential if they have effective, appropriate reading instruction and a good teacher-pupil relationship. Therefore, emotional maladjustment alone is not a very common cause of reading disability. However, it certainly can be a significant contributing factor as it was in the example of Amanda mentioned earlier in this chapter. However, a child often can become emotionally maladjusted if he/she does not learn to read as well as he/she should. Emotional maladjustment then occurs because learning to read is a very important developmental task for the vast majority of children. Those who do not learn to read effectively have failed this important developmental task and often develop emotional maladjustment and a low self-image.

Therefore, emotional maladjustment and reading disabilities often form a *reciprocal relationship* in which reading difficulties lead to slight emotional maladjustment. This maladjustment may lead to more severe reading disabilities, which in turn lead to a more severe emotional maladjustment.



In most cases, the emotional adjustment of a child improves greatly as his/her reading skills improve in an excellent diagnostic-prescriptive reading program with a good teacher-pupil relationship. Sometimes psychological or guidance counseling in conjunction with reading instruction will result in the optimum amount of reading improvement.

However, there are a few children who resist learning to read in school for various reasons. For example, they may make a conscious refusal to learn to read to punish their parents or as a result of too much parental pressure. Some children may want to remain so dependent on their parents that they may resist the “grown-up” task of learning to read. Then, too, a few children may be too distractible, hyperactive, or inattentive to make good reading progress.

In any case, disabled readers can display many different kinds of behaviors in school. Occasionally they can appear passive, withdrawn, and disinterested. However, some—like Rod in the example given earlier—are aggressive, hostile, and destructive. From my experience the latter type of behavior is the more common. As stated earlier, all types of emotional maladjustment usually improve with good reading instruction and good teacher-pupil rapport.

A Child's Self-Esteem Can Contribute to Reading Disabilities

There often may be significant relationships between a child's self-concept and his/her reading success. Students with a negative self-concept may have difficulty profiting from reading instruction up to the limits of their potential. However, a child's self-concept will improve along with his/her reading skills if the child is provided with excellent reading instruction. Negative self-esteem more often is a product of the child's reading disabilities rather than the cause. When you believe a child can make reading improvement, the child usually will make reading improvement—another example of the self-fulfilling prophecy.

Interests and Attitudes

A child's interest in reading and his/her attitudes toward reading activities can greatly influence success in reading. A child who is truly interested in a book's topic may well be able to read it even if it is on his/her frustration reading level. On the other hand, a child's lack of interest in a book certainly can result in a virtual refusal to attempt to read it. That is why it often is helpful for you to give some type of “interest inventory” so that the child's interest can be capitalized upon in selecting reading materials. Unfortunately, it often is difficult to find any type of reading materials that will really interest a truly reluctant reader.

A child's attitude toward reading and his/her motivation to read either for pleasure or information can also influence his/her degree of success in reading. For example, if a child comes from a home in which reading is not valued or he/she sees no relevance to what must be read, it may be difficult to motivate him/her to read. This is why it is so important to try to provide a child with materials that he/she considers to be relevant and meaningful. A significant lack of motivation perhaps can result in reading disabilities in extreme incidences.

The Relationships Among Reading Disability, Handwriting, and Arithmetic _____

It is interesting to briefly explore the relationships between reading problems, handwriting competence, and arithmetic ability. According to Harris and Sipay (1990, pages 356–358), there is a correlation of .05 to .08 between reading ability and spelling ability. This indicates that a good reader is likely to be a good speller. However, a child also can be a good reader and a poor speller (about 2 percent of the population), or a poor reader and a poor speller. Good readers are less likely to misspell phonetically regular words than

phonetically irregular words. However, the misspellings of a number of disabled readers appear to be unrecognizable, but may be only phonetically inaccurate.

Poor handwriting occurs fairly often among disabled readers. Poor handwriting may be an expression of dislike for all types of reading activities, but also may be a sign of poor hand-eye coordination. Disabled readers often are below average in arithmetic also, although often not as far below average as in reading and spelling. It is not unusual for a learning handicapped child to have fairly good mathematical skills while having very poor reading and spelling skills.

The Significance of the Multiple Causation Theory of Reading Disabilities _____

Rarely is there a single cause of reading disabilities. Often there are a constellation of causes operating together that result in a child's reading difficulties. Reading is a complex process requiring visual and auditory perception abilities, word identification ability, comprehension ability, adequate prior knowledge and schema, and effective metacognition (monitoring of reading comprehension). Therefore, it is logical that there often are several causes for a case of reading disability.

As one example, a child may not have good emergent literacy skills before being exposed to a formal beginning reader program. Therefore, he/she may not experience success in beginning reading, and a poor self-image and emotional maladjustment may result causing further difficulties in reading. This also can happen when a child does not learn to read effectively because of inappropriate reading instruction. For example, a visual defect such as uncorrected myopia may cause reading problems that, in turn, can lead to emotional maladjustment. Therefore, you can see that it is often difficult to determine a single cause for a child's reading problems.

It is important for you to attempt to determine the causes of a disabled reader's reading difficulties. However, it is necessary for you to treat the symptoms of the reading disabilities while you try to discover the causes for the problems. You can formulate tentative hypotheses or guesses as to why the child has the disability, which later can be confirmed or disconfirmed. In addition, disabled readers can give invaluable help themselves in determining why they have the reading disability. Although certainly this is true with intermediate-grade students, it also is possible with primary-grade children.

Some of the Criteria for Determining Reading Disability _____

When selecting children for inclusion in a remedial or corrective reading program, it is important to determine whether a student is *underachieving* (perhaps reading at grade level but less than his/her intellectual ability would allow), a *disabled reader* (reading below his/her potential level and grade level), or a *slow learner* (reading as well as could be expected in the light of his/her intellectual potential).

Normally you must consider the child's chronological age, intelligence or mental age, present reading ability, and possibly listening comprehension ability in determining whether or not he/she is reading up to the limits of his/her potential. Although it may not always be necessary to attempt to be precise in determining potential for reading improvement, at times it is important to determine this with as much precision as possible so that children can be admitted to special reading programs in the light of their true reading needs and potential for reading improvement.

In any case, you undoubtedly will find the entire issue of determining potential for reading improvement very complex and possibly time consuming. As an example, Harris and Sipay (1990) devote nineteen pages (162–180) of their book to this topic, with much of the material being quite complicated.

Carol Winkley has suggested a very simple way to determine reading expectancy. In "Building Staff Competence in Identifying Underachievers" (*The Underachiever in Reading*, H. A. Robinson, ed., Supplementary Educational Monograph No. 92, University of Chicago Press, 1962, pp. 155–162), she recommends using stanine scores (1–9) from reading and intelligence tests. The score from the intelligence test must be at least two stanines higher than that of the reading test in order to indicate that the child has a reading disability. This simple means may be acceptable for the teacher's own use but probably is not precise enough for selecting students for inclusion in special reading programs.

The Bond and Tinker reading expectancy formula has often been used in the past (1989, pages 41–42). It is said to function fairly accurately with students who are of average intelligence, but sets too-high expectations for slow-learning students and too-low expectations for bright children. In any case, here is the Bond and Tinker formula:

$$\text{Reading Expectancy (RE)} = \frac{YRI \times IQ}{100}$$

In this formula, *YRI* means years of reading information, *IQ* is intelligence quotient, and 100 is a constant. For example, an eight-year-old student whose IQ is 90 and who had received reading instruction for two years, by the end of second grade would have an RE of 2.8.

$$2.8 = \frac{2 \times 90}{100} + 1$$

Harris and Sipay (1990) explain in their book what appears to be a very useful procedure for identifying reading disabilities. It uses the concepts of reading expectancy age, reading expectancy quotient, and reading quotient. In this formula *reading expectancy age* is an estimate of the reading age and, therefore, the level of reading achievement that a student should be able to attain. This formula gives priority to the importance of intelligence but also considers other age-related characteristics. Here is the formula:

$$\text{Reading Expectancy Age (R Exp A)} = \frac{2MA + CA}{3}$$

A reading expectancy quotient expresses how a pupil's actual level of reading compares with his/her expected reading level. It uses the reading age (add the grade equivalent score on a reading test and 5.2—for example, 3.2 + 5.2 = 8.4) and the reading expectancy age. The number 5.2 is used because there normally is a regular difference of 5.2 years between chronological age and grade equivalent, since the typical child in American public schools enters first grade at 6.2 and is promoted regularly. In any case, here is this formula:

$$\text{Reading Expectancy Quotient (R Exp Q)} = \frac{RA}{R \text{ Exp A} \times 100}$$

Reading expectancy quotients that range between 90 and 110 are considered to be normal while those below 90 are considered to be examples of reading disability or underachievement—the farther below 90, the greater the disability or underachievement. If the R Exp Q is above 110 it indicates reading above expectancy. To help determine both reading expectancy age and reading expectancy quotient, two tables from the Harris and Sipay book are given here. The "Reading Expectancy Age Table" shows selected combinations of chronological age and intelligence quotients. You must interpolate as needed. The "Reading Expectancy Quotients Table" uses reading age and reading expectancy to determine the quotients, and those printed in bold type fall within the normal range.

**Reading Expectancy Ages for Selected Combinations
of Chronological Age and Intelligence Quotient**

IQ	CHRONOLOGICAL AGE												
	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2	12.7	13.2
140	9.1	9.6	10.3	10.9	11.6	12.1	12.9	13.4	14.1	14.7	15.4	15.9	16.7
135	8.8	9.4	10.1	10.6	11.3	11.8	12.5	13.1	13.8	14.3	15.0	15.5	16.2
130	8.6	9.1	9.8	10.3	11.0	11.5	12.2	12.7	13.4	13.9	14.6	15.1	15.8
125	8.4	8.8	9.5	10.0	10.7	11.2	11.9	12.3	13.0	13.5	14.2	14.7	15.4
120	8.1	8.6	9.3	9.7	10.4	10.9	11.5	12.0	12.7	13.1	13.8	14.3	14.9
115	7.9	8.3	9.0	9.4	10.1	10.5	11.2	11.7	12.3	12.7	13.4	13.8	14.5
110	7.6	8.1	8.7	9.2	9.8	10.2	10.9	11.3	11.9	12.4	13.0	13.4	14.0
105	7.4	7.9	8.4	8.9	9.5	9.9	10.5	11.0	11.5	12.0	12.6	13.0	13.6
100	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2	12.7	13.2
95	6.9	7.4	7.9	8.3	8.9	9.3	9.7	10.4	10.8	11.3	11.8	12.2	12.7
90	6.7	7.1	7.6	8.0	8.6	8.9	9.5	9.9	10.4	10.8	11.4	11.7	12.3
85	6.4	6.8	7.4	7.7	8.2	8.6	9.1	9.5	10.0	10.4	10.9	11.3	11.8
80	6.2	6.6	7.1	7.4	7.9	8.3	8.8	9.2	9.7	10.0	10.5	10.9	11.4
75	6.0	6.3	6.8	7.2	7.6	8.0	8.5	8.8	9.3	9.7	10.1	10.5	11.0
70	5.7	6.1	6.5	6.9	7.3	7.7	8.1	8.5	8.9	9.3	9.7	10.1	10.5
65	5.5	5.9	6.3	6.6	7.0	7.3	7.8	8.1	8.6	8.9	9.3	9.6	10.1
60	5.3	5.6	6.0	6.3	6.7	7.0	7.5	7.8	8.2	8.5	8.9	9.2	9.8

Note: Any expectancy age in the table can be changed into an expectancy grade equivalent by subtracting 5.2 years.

From *How to Increase Reading Ability: A Guide to Developmental and Remedial Methods* by Albert J. Harris and Edward R. Sipay. Copyright © 1990 by Longman Publishing Group. Used with permission.

**Reading Expectancy Quotients for Selected Combinations
of Reading Expectancy Age and Reading Age**

Reading Age	READING EXPECTANCY AGE											
	6.7	7.2	7.7	8.2	8.7	9.2	9.7	10.2	10.7	11.2	11.7	12.2
6.2	92	86	80	75	71	67	63	60	57	55	52	50
6.7	100	93	87	81	77	72	69	65	62	59	57	54
7.2	107	100	93	87	82	78	74	70	67	64	61	59
7.7	114	106	100	93	88	83	79	75	71	68	65	63
8.2	122	113	106	100	94	89	84	80	76	73	70	67
8.7	129	120	112	106	100	94	90	85	81	78	74	71
9.2	137	128	119	112	106	100	95	90	86	82	79	75
9.7	145	135	126	118	111	105	100	95	91	87	83	80
10.2	152	142	132	124	117	111	105	100	95	91	87	84
10.7	160	149	139	130	123	116	110	105	100	96	91	88
11.2	167	156	145	137	129	122	115	110	105	100	96	92
11.7	175	163	152	143	134	127	121	115	109	104	100	96
12.2	182	169	158	149	140	133	128	120	114	109	104	100

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General Guidelines and Materials for Diagnosing Reading Disabilities

Many people who are not in the field of education believe that the standardized tests given each school year are an accurate way of determining a student's reading progress. They believe that these test scores provide definitive information about a student's reading achievement and, therefore, enable the teacher to place that child into a particular reading group or class. As any experienced reading teacher knows, a standardized test score may be in error in a number of different ways and *never should be thought of as an infallible indicator of a student's true reading ability or status*. Instead, these teachers understand that diagnosis or assessment of reading progress should be a continuous, daily process which occurs in classrooms and points the way toward more effective diagnostic-prescriptive reading instruction. Indeed, if such assessments would take place regularly in elementary and special classrooms, many cases of reading disability could be prevented or at least minimized. Diagnosis should take the form of both informal and standardized devices.

The Differences Between Reading Assessment and Reading Diagnosis

At the beginning, it undoubtedly is important to define the terms *assessment* and *diagnosis* as they normally are used by reading specialists today. *Assessment* can be defined as gathering information to meet the particular reading needs of a child. *Diagnosis or testing* can be defined as one particular method for obtaining information about a child. It seems obvious that assessment is considerably more informal than diagnosis or testing when the terms are defined this way.

Assessment should always be considered an essential part of instruction and therefore should occur continuously. Often, it is more useful in determining a child's reading strengths and weaknesses than standardized diagnosis especially if it is done by an experienced reading teacher. Assessment is usually recommended by contemporary reading spe-

cialists more frequently than diagnosis. Informal, process-oriented assessment of reading competencies *may be* more commonly used in the future than standardized tests if administrators, school-board members, and parents will accept it. However, a number of people place too much faith in standardized test scores, which correspondingly discourages the use of informal teacher assessment.

Such informal assessment should be done on an individual or small-group basis. It should be the basis for subsequent diagnostic-prescriptive teaching of reading for an individual child or a small group of children.

On the other hand, testing or diagnosis generally requires the use of some type of standardized device which is given to a group of children or to an individual child: standardized survey reading/achievement tests, basal reader tests, individual or group diagnostic reading tests, process-oriented measures of reading comprehension, or criterion-referenced tests. The standardized testing of reading has been stressed in the past and continues to receive emphasis primarily because of the accountability movement in education. As stated earlier, assessment may receive more well-deserved emphasis in the future if the accountability movement will allow for this.

An Emergent Literacy Behavioral Checklist

This is a checklist that kindergarten and first grade teachers can use in assessing a child's competence in the most important emergent literacy skills. It should be equally useful with both "average" and learning-handicapped children. You can duplicate and use it in its present form or modify it, if necessary, to suit your particular needs.

EMERGENT LITERACY BEHAVIORAL CHECKLIST

(For Children of All Abilities, Including Learning-Handicapped Children)

Name _____ Grade _____ Teacher _____ Date _____

A. Understanding the Terms Used in Reading (Concepts about Print)

1. Is able to locate the title of a book
2. Is able to locate the author of a book
3. Is able to locate the front of a book
4. Understands the concept of a *letter*
5. Understands the concept of a *word*
6. Understands what a *period* and a *comma* are

B. Visual Discrimination and Perception

1. Understands *left-to-right* progression
2. Is able to discriminate between letters such as *a* and *e*
3. Is able to discriminate between letters such as *g* and *q* (reversals)
4. Is able to discriminate between letters such as *m* and *w* (inversions)
5. Is able to discriminate between such non-look-alike words as *run* and *jump*
6. Is able to discriminate between such look-alike words as *stop* and *spot*
7. Is able to complete a jigsaw puzzle of about fifteen pieces
8. Is able to recognize word boundaries (white spaces between words)
9. Is able to keep his/her eyes on the line
10. Is able to draw an acceptable person with a pencil

C. Auditory Discrimination

1. Is able to rhyme words
2. Is able to discriminate between the various consonant sounds
3. Is able to discriminate between the different long vowel sounds
4. Is able to discriminate between the different short vowel sounds

D. Letter-Name Knowledge

1. Is able to identify most or all of the lower-case letter names in isolation
2. Is able to identify most or all of the lower-case letter names in context
3. Is able to identify most or all of the upper-case letter names in isolation
4. Is able to identify most or all of the upper-case letter names in context
5. Is able to give the sounds of most or all of the consonants

Emergent Literacy Behavioral Checklist, continued

6. Is able to give the sounds of most or all of the long vowels (*a, e, i, o, u*)
7. Is able to give the sounds of most or all of the short vowels (*a, e, i, o, u*)

E. Knowledge of Environmental Print (Common Sight Words)

1. Is able to recognize by sight about five to seven words that are commonly found in the daily environment (STOP, McDonalds, Crest®, Wal-Mart, K-Mart, Cheerios®, Alpha-Bits®, etc.)
2. Is able to recognize his/her own first name
3. Is able to recognize by sight a word the day after it was presented

F. Writing Activities

1. Uses scribbling or letter strings (random letters) to indicate that he/she understands the purpose of writing
2. Is able to use inventive spelling on appropriate occasions which require it (writing stories, writing letters or notes, writing cards, etc.)
3. Is able to print his/her own first name correctly
4. Is able to copy sight words correctly that he/she can recognize

G. Word Understanding and Listening Comprehension

1. Is able to select the correct meaning for words such as *nest, monster, insect, or dinosaur*
2. Is able to understand such terms as *over, under, top, and bottom*
3. Is able to pick out a word that does *not* go with a group of four words (classify or categorize as chair, table, computer, sofa)
4. Is able to answer questions at various levels (explicit—factual and implicit—interpretive and critical) after listening to a picture storybook or a tradebook
5. Is able to retell a picture storybook or a tradebook after listening to it being read

H. Conceptual Ability

1. Has a fairly good imagination (average to that of his/her peers)
2. Seems to be as “creative” as the other members of his/her group

I. Oral Language Usage

1. Is able to speak in complete sentences
2. Is able to speak in compound or complex sentences
3. Uses interesting, precise vocabulary
4. Seems to enjoy participating in such activities as sharing time, conversation, role-playing, and dramatic play

Emergent Literacy Behavioral Checklist, continued

J. Laterality

1. Is able to differentiate between his/her right and left hands
2. Is able to differentiate between his/her right and left feet

K. Motor Coordination

1. Is able to walk forward and backward on a balance beam
2. Is able to catch a large ball with ease
3. Seems generally well coordinated when playing games
4. Is able to run, jump, skip, and gallop fairly well
5. Is able to use manipulative materials such as scissors, paste (glue), crayons, markers, and paint brushes fairly effectively
6. Does not demonstrate perseveration (giving the same response again and again even if incorrect)
7. Has scribbling or handwriting that appears about average with his/her peers
8. Is able to draw a fairly accurate circle, square, rectangle, and diamond (however, the diamond is very difficult for most children at this level)

L. Memory Ability

1. Is able to remember what was just seen
2. Is able to remember what was just heard
3. Is able to remember a letter name, letter sound, or sight word one or several days after it was presented
4. Is able to remember the primary (basic) colors

M. Social-Emotional Adjustment

1. Appears to be appropriately independent, self-reliant, and mature for his/her age
2. Appears to have a positive self-image
3. Is able to follow simple directions
4. Is able to concentrate on something that interests him/her for at least 10 to 15 minutes
5. Is able to work and play well with other children
6. Is able to sit still as well as most of the other children in the group
7. Has adequate frustration toleration
8. Does not appear excessively fidgety or distractible
9. Appears fairly well organized

A Primary-Grade Checklist for Observing Reading Competencies and Weaknesses

Here is a ready-to-duplicate checklist you can use to aid observation of a child's reading strengths and weaknesses in the various reading skills, including word identification skills, comprehension skills, beginning study skills, and oral and silent reading fluency. Equally useful with both "average" and learning-handicapped children, you can reproduce this checklist in its present form or modify it in any way necessary to suit your particular students.

An Intermediate-Grade Checklist for Observing Reading Competencies and Weaknesses

Here is a ready-to-use checklist for you to use as an aid in the observation of intermediate-grade children's reading strengths and weaknesses in the various reading skills, including word-identification techniques, comprehension skills, study skills, oral reading fluency, and silent reading ability. This checklist is equally applicable to both "average" and learning-handicapped children.

You can duplicate this checklist in its present form or modify it to suit your particular situation.

PRIMARY-GRADE CHECKLIST FOR TEACHER OBSERVATION OF A CHILD'S READING SKILLS (For Children of All Abilities Including Learning-Handicapped Children)

Name _____ Grade _____ Teacher _____ Date _____

I. Word Identification Techniques

A. Sight Word Recognition

1. Is able to recognize most or all of the words on any basic sight-word list such as the *Dolch Basic Sight Word List*, *Fry's Instant Words*, or *Hillerich's 240 Starter Words*
2. Seems to be able to remember a sight word the day after or several days after it was presented
3. While reading orally or silently seems to recognize most of the words encountered on an automatic basis
4. Is able to effectively learn hard-to-retain sight words by using some type of tracing strategy such as felt letters, sandpaper letters, a sand tray, a salt tray, or by the use of instant pudding or shaving cream

B. Phonic (Graphophonic) Analysis

1. Is able to provide the sounds of all the consonants and is able to provide a word that begins with each of them
2. Is able to provide a word that begins with each of the common consonant sounds
3. Is able to recognize and provide a word containing the common consonant digraphs such as *voiced th*, *voiceless th*, *sh*, *ch*, *ph*, and *wh*
4. Is able to recognize all of the common phonograms such as *-ack*, *-all*, *-ick*, *-ell*, *-ill*, *-in*, *-en*, etc.
5. Is able to provide the long vowel sounds for *a*, *e*, *i*, *o*, *u*
6. Is able to provide the short vowel sounds for *a*, *e*, *i*, *o*, *u*
7. Understands the use of r-controlled vowels
8. Is able to give a word beginning with the soft and hard sounds of *c*
9. Is able to give a word beginning with the soft and hard sounds of *g*
10. Understands the function of the final *e* marker
11. Understands that *k* is silent in *kn*, that *w* is silent in *wr*, and that *g* is silent in *gn*
12. Is able to give a word containing a diphthong such as *oi*, *oy*, *ou*, and *ow*

Primary Checklist for Observation of Skills, continued

13. Understands and is able to apply these phonic generalizations:
 - a. When there are two vowels found side by side, the long sound of the first vowel is usually heard, while the second one is usually not heard
 - b. When a vowel is found in the middle of a one-syllable word that ends with a consonant, the vowel is usually short
 - c. When the same two consonants are found side by side, only one consonant is heard
 - d. When the only vowel letter is found at the end of the word, the letter usually stands for the long sound
 - e. When a word contains two vowels, one of which is *final e*, the first vowel is long and the *final e* is silent
14. Is able to blend a series of sounds into a recognizable word (skill in auditory blending—especially important to success in a program that stresses synthetic phonic analysis)
15. Is able to filter out extraneous noise—is fairly competent in the auditory channel (modality)

C. Structural (Morphemic) Analysis

1. Is able to add the common suffixes such as *-s, -es, -ed, -ing, -ly, -y, -ful, -er, -en, -ness* and *-less*
2. Understands the basic function of prefixes and can add such prefixes as *un-, in-, re-,* and *dis-* to base words
3. Is able to recognize some less common contractions by sight such as *we'll, you'll, I've, shouldn't, couldn't, wouldn't, o'clock, they've, they'll,* and *they're*
4. Is able to understand the use of the possessive such as *my sister's dress*
5. Is able to divide words of two or three syllables correctly
6. Is able to understand and apply the principle of the *final silent e* while adding a suffix to the base word
7. Is able to understand and apply the principle of *doubling the final consonant* in a short word with one vowel before adding the suffix
8. Is able to understand and can apply the principle of changing *y* to *i* before adding the suffix *-es*
9. Usually uses structural analysis skills before applying phonic analysis skills in decoding an unknown word when applicable

D. Contextual (Semantic) Analysis

1. Usually substitutes words for unknown words that make sense in sentence context and that are grammatically correct while reading aloud
2. Usually can pronounce words correctly in context that might not be pronounced accurately in isolated word lists

Primary Checklist for Observation of Skills, continued

3. Is able to complete about 80 percent or more of the deleted words with the correct word or synonym from a traditional cloze exercise at the second-grade or third-grade reading level
4. Is able to complete a contextual analysis exercise correctly at the second-grade or third-grade reading level in a written form such as the following:
The girl who lived in the woods saw a _____
money
porcupine
pretty
walking down the road one day.
5. Understands the use of figurative language at a rudimentary level (personification and figures of speech)

II. Comprehension Skills

A. *Explicit (Literal or Factual) Comprehension*

1. Is able to answer explicit (literal, recall, or factual) comprehension questions from material at about the second-grade or third-grade reading level that the child has read for himself/herself
2. Is able to retell a story written at about the second-grade or third-grade reading level in approximately the correct sequence
3. Is able to orally state the main idea of a story or a picture storybook
4. Does better with explicit comprehension than with implicit comprehension
5. Is able to carry out written directions of about three to five steps in about the correct order
6. Is able to locate the significant details in a story or picture storybook
7. Is able to locate the directly stated main idea in a paragraph at the second-grade or third-grade reading level if it is placed in the topic sentence of that paragraph

B. *Implicit (Interpretive) Comprehension*

1. Is able to answer implicit (interpretive) comprehension questions at about the second-grade or third-grade reading level (questions that call for interpreting, inferring, drawing conclusions and generalizations, predicting outcomes, and summarizing)
2. Is able to predict story content effectively before reading a story and then confirm or disconfirm the predictions during and after reading
3. Is able to orally or in writing summarize a story or a picture storybook in one or two sentences
4. Is able to understand and apply very simple cause-effect relationships

Primary Checklist for Observation of Skills, continued

5. Is able to understand and orally state an author's purpose for writing a story
6. Is equally competent in implicit comprehension and explicit comprehension

C. Critical (Implicit) Comprehension

1. Is able to answer questions that call for critical or evaluative responses from material at about the second-grade or third-grade reading level
2. Is able to distinguish between real and make-believe (fact or fantasy) with some degree of competence
3. Is able to understand and recognize the feelings, actions, and motives of story characters with some degree of competence

D. Creative (Script or Schema-Implicit) Comprehension

1. Is able to relate what he/she reads or has read to himself/herself in some way that contributes to his/her improvement
2. Is able to follow up reading in a problem-solving manner such as by cooking or baking activities, art activities, construction activities, dramatic play, creative dramatics, rhythm activities, or creative writing of prose or poetry

III. Study Skills

1. Is able to use a table of contents at the second-grade or third-grade reading level
2. Is able to use the page numbers in a book to locate the required page
3. Is able to understand and interpret pictures and simple maps
4. Is able to use these elements of a simplified dictionary: guide words, entry words, and definitions; at this reading level, these reading skills should be mastered at a fairly simple level

IV. Oral Reading

1. Seems to enjoy reading orally
2. Uses good expression while reading orally
3. Is able to stay on the correct line while reading orally
4. Does not reread a line or skip a line while reading orally
5. Is able to read in phrases or groups of words fairly well instead of reading in a word-by-word manner
6. Observes punctuation marks such as periods and commas while reading orally
7. Does not usually lose his/her place while reading orally
8. Comprehends fairly well what he/she has read orally
9. Appears to have no significant speech disorders while reading orally

Primary Checklist for Observation of Skills, continued

V. Silent Reading

1. Seems to enjoy reading as evidenced by reactions during the reading of a story or a picture storybook
2. Uses word identification skills well to decode unknown words while reading silently
3. Comprehends material that is read silently
4. Uses correct posture and book position while reading silently
5. Reads somewhat more rapidly silently than orally
6. Usually avoids lip movements, subvocalization, finger pointing, and head movements while reading silently

INTERMEDIATE-GRADE CHECKLIST FOR TEACHER OBSERVATION OF A CHILD'S READING SKILLS (For Children of All Abilities Including Learning-Handicapped Children)

Name_____ Grade_____ Teacher_____ Date_____

I. Word Identification Techniques

A. *Sight Word Recognition*

1. Is able to recognize all of the words on any basic sight-word list
2. Is able to recognize all of the words on Harris-Jacobsen Core List (a sight-word list encompassing the sixth-grade reading level) or on any other comprehensive sight-word list
3. Seems to be able to remember a sight word the day after or several days after it was presented
4. While reading orally or silently seems to be able to recognize most of the words encountered on an automatic basis
5. Seems to be able to recognize the majority of the words in content textbooks, such as social studies and science, on an automatic basis
6. If necessary, primarily for learning-handicapped or disabled readers: Is able to effectively learn hard-to-retain sight words by some type of tracing strategy such as the Fernald Tracing Method

B. *Phonic (Graphophonic) Analysis*

1. Is able to effectively use all of the consonant elements that were presented and reinforced in the primary grades to decode unknown words
2. Is able to use all of the vowel elements that were presented and reinforced in the primary grades to decode unknown words
3. Is able to blend a series of sounds into a recognizable word (skill in auditory blending)
4. Seems to be competent in the use of the auditory channel (modality)
5. Is able to determine when it is appropriate to use phonic analysis as the most effective word-identification technique
6. Understands and can effectively apply the major phonic analysis generalizations that were presented in the primary grades
7. Seems to be equally competent in using phonic analysis in decoding unknown words both in narrative and in content reading

Intermediate Checklist for Observation of Skills, continued

C. Structural (Morphemic) Analysis

1. Is able to add all of the suffixes to base words that were presented in the primary grades
2. Is able to add suffixes such as these to base words: *-less*, *-ible*, *-able*, *-ment*, and *-ish*
3. Is able to add all of the prefixes to base words that were presented in the primary grades
4. Is able to add prefixes such as these to base words: *sub-*, *under-*, *semi-*, *dis-*, *ante-*, and *anti-*
5. Is able to correctly divide multisyllabic words into syllables
6. Is able to use primary, secondary, and tertiary accents (stresses)
7. Is able to understand and use the principles of adding suffixes with a spelling change that were presented in the primary grades
8. Is able to understand and use the important structural analysis generalizations that were presented in the primary grades
9. Is able to understand and can use these important accent generalizations:
 - a. In inflected or derived forms of words, the primary accent normally falls on or within the root word
 - b. The primary accent usually occurs on one of the first two syllables in words of one or more syllables
10. Can use the meaning of prefixes, suffixes, or word roots to determine the approximate meaning of unknown vocabulary found in content area reading
11. Usually uses structural analysis before using phonic analysis in decoding unknown words

D. Contextual (Semantic) Analysis and Vocabulary Knowledge

1. Usually substitutes words for unknown words that are semantically and syntactically correct while reading orally or silently
2. Usually is able to pronounce words correctly in context that might not be pronounced correctly in isolation
3. Is able to complete about 70 percent to 80 percent of the omitted words correctly or with a synonym from a cloze exercise constructed on the fourth-, fifth-, or sixth-grade reading level
4. Understands such figurative language as *idioms*, *similes*, and *metaphors*
5. Understands the use of *synonyms*, *antonyms*, and *homonyms*
6. Understands the use of *homophones*, *homographs*, and *onomatopoeic* words

Intermediate Checklist for Observation of Skills, continued

II. Comprehension Skills

A. *Explicit (Literal or Factual) Comprehension*

1. Is able to answer explicit (literal, recall, or factual) comprehension questions about narrative or content material at the intermediate-grade reading level that the child has read for himself/herself
2. Is able to retell a story written at about the fourth-, fifth-, or sixth-grade reading level
3. Is able to locate the directly stated main idea and/or topic sentence in a paragraph
4. Is able to state orally the main idea of a basal reader story, a content textbook selection, or a tradebook
5. Is able to state the main idea of a basal reader story, a content textbook selection, or a tradebook in written form
6. Is able to effectively read and carry out directions at the appropriate reading level
7. Is able to locate irrelevant or unimportant details in content material
8. Understands the meaning of specialized vocabulary terms in the content areas of social studies, science, and mathematics

B. *Implicit (Interpretive) Comprehension*

1. Is able to answer implicit (interpretive) comprehension questions (questions that call for interpreting, inferring, drawing conclusions and generalizations, predicting outcomes, and summarizing) about narrative or content material at the intermediate-grade reading level that he/she has read for himself/herself
2. Is able to locate the implied main idea in a paragraph
3. Is able to apply cause-effect and/or comparison-contrast relationships
4. Is able to summarize narrative or content material in several sentences or in a written paragraph
5. Is able to determine an author's purpose for writing a narrative or content selection
6. Is able to test in writing the hypotheses about a selection that were made before reading it
7. Does equally well with implicit comprehension and explicit comprehension

C. *Implicit (Critical) Comprehension*

1. Is able to answer questions that call for critical or evaluative responses from narrative or content material at the intermediate-grade reading level that he/she has read for himself/herself

Intermediate Checklist for Observation of Skills, continued

2. Is able to distinguish between fact and opinion
3. Is able to compare material from several different sources such as a tradebook and a content textbook
4. Is able to determine an author's biases in a writing selection of any kind
5. Is able to recognize the common propaganda techniques, such as testimonials and the bandwagon effect
6. Is able to evaluate the actions of individuals or groups
7. Is able to critically read parts of the newspaper such as the editorials, letters to the editor, and advertisements
8. Is able to estimate the answer to a verbal problem in arithmetic
9. Does equally well with the elements of implicit comprehension and explicit comprehension

D. Creative (Script or Schema-Implicit) Comprehension

1. Is able to effectively relate what was read to his/her own life in some way that contributes to his/her welfare
2. Is able to follow up his/her reading in a problem-solving way such as by creative writing of prose or poetry, storytelling, art activities, construction activities, rhythm activities, dramatic activities, and pantomiming
3. Does equally well with these elements of implicit comprehension as with explicit comprehension

III. Study Skills

1. Is able to use all the elements of a dictionary at the appropriate reading level to locate the pronunciation or meaning of unknown words which are met in narrative or content reading (alphabetical sequence, guide words, diacritical marking, and most important, choosing the correct definition for use in the actual reading situation)
2. Is able to use a thesaurus effectively
3. Is able to use such textbook aids as the table of contents, index, glossary, appendices, subheadings, and footnotes
4. Is able to interpret various kinds of maps, charts, diagrams, pictures, tables, and schedules
5. Is able to use appropriate reference books in the content areas of social studies and science
6. Is able to use the library card catalog at least to some extent
7. Is able to use such parts of an encyclopedia as the key words, volume numbers, guide words, entry words, and cross-references
8. Is able to outline a content textbook chapter using main headings and subordinate headings

Intermediate Checklist for Observation of Skills, continued

9. Is able to take acceptable notes from a content textbook at the appropriate reading level
10. Is a *flexible reader* (able to adjust reading rate to satisfy his/her purpose for reading and the difficulty of the reading material)
11. Is able to *skim* the reading material to gain an overall impression
12. Is able to *scan* the reading material to locate a specific fact, name, or date

IV. Oral Reading

1. Seems to enjoy reading aloud before an audience
2. Does not seem to be tense while reading aloud
3. Uses good expression while reading aloud
4. Observes punctuation marks while reading aloud
5. Reads aloud in thought units or groups of words
6. Is able to comprehend what he/she has read aloud
7. Usually avoids inhibiting factors such as head movement and fingerpointing while reading aloud

V. Silent Reading

1. Seems to enjoy reading silently as evidenced from reactions while reading silently
2. Uses all of the word-identification techniques (sight-word recognition, phonic analysis, structural analysis, and contextual analysis) independently to decode unknown words met in narrative and content reading
3. Seems to effectively comprehend material that is read silently
4. Adjusts reading rate to the reading material (demonstrates reading flexibility)
5. Reads silently about twice as rapidly as orally
6. Is able to select appropriate reading material for recreational reading
7. Chooses to read for pleasure as a recreational activity at least fairly often
8. Demonstrates correct posture and book position while reading silently
9. Avoids inhibiting factors while reading silently such as lip movements, subvocalization, head movement, and fingerpointing
10. Appears to be a more competent silent reader than oral reader

Additional Ways of Assessing (Diagnosing) Reading Disabilities

As stated earlier, for many reasons informal assessment or diagnosis of reading strengths and weaknesses is more practical and useful than standardized assessment. However, since it appears less “scientific” and precise to some administrators and to a number of parents and school board members, it is not as commonly used as it should be. However, some of the techniques described and illustrated in this part of the chapter may make the use of informal assessment devices more useful for many classroom reading teachers and learning disability teachers.

Portfolio Assessments and Work Samples

It is extremely important to keep examples of a child’s work over a time period for a number of reasons: (1) these work samples show the child in a concrete manner the type and quantity of his/her reading improvement; and (2) such work samples can be extremely useful during parent-teacher conferences to illustrate a child’s specific progress or lack of mastery in certain reading skill areas.

It is extremely important for all disabled readers, and especially for learning-handicapped students, to see their progress in a concrete, meaningful manner. Therefore, portfolio assessment and work samples are usually quite effective for this type of child.

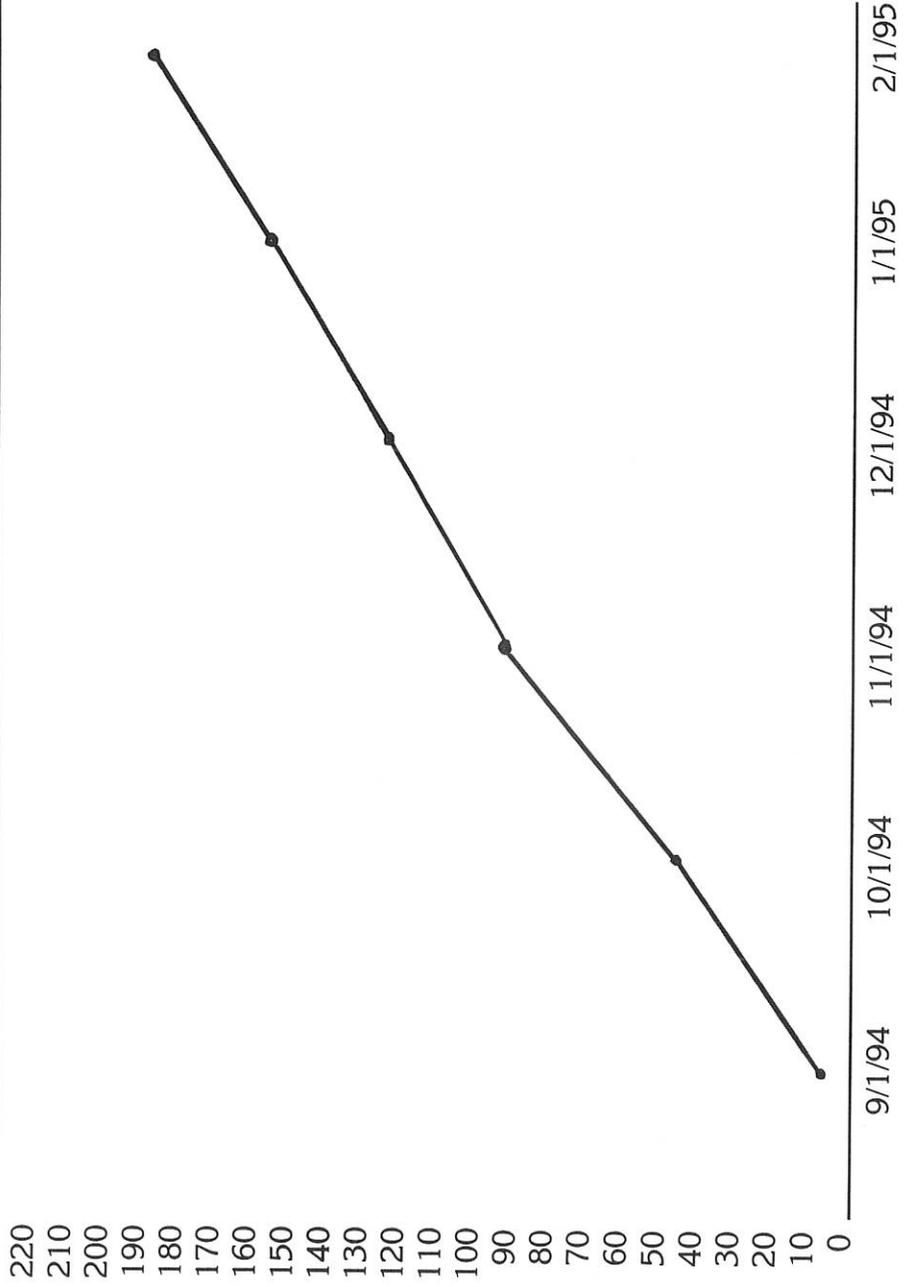
Examples of the child’s work can be included in what is called *portfolio assessment*. Briefly, this means that the child’s work is placed into a labeled folder or notebook and then kept and added to over a time period. Although portfolio assessment may contain a number of different types of child’s work, here are some examples of the work which could be included:

- An observational checklist that the teacher has completed for a child (see the previous section). This checklist can be used in total or in part later on to illustrate the child’s mastery of some of the reading skills in which competence had not been attained at the earlier observation.
- Tape-recorded oral reading protocols (explained in detail in the next section).
- Tape-recorded oral reading protocols that are analyzed by *miscue analysis* (illustrated later in this section). This analysis may show the child’s reading strengths in a concrete manner.
- Graphs of progress that show concretely a child’s progress in a specific area of reading attainment such as the following:
 - mastery of a word on a sight-word list such as the *Dolch Basic Sight Word List*
 - mastery of a certain sequence of phonic principles
 - completion of a certain level of basal reader, basal reader workbook, or phonic workbook
 - completion of a certain number of books or pages of books read

This "graph of progress" was constructed for a third-grade severely disabled reader who knew virtually no sight words at third-grade entrance.

Dolch Basic Sight Word List

Manual



Tape-Recorded Oral Reading Protocols

Tape-recorded oral reading protocols can be extremely useful in both corrective and remedial reading programs. Their most common purpose is to simply show a child and his/her parents reading progress over time in a very concrete, meaningful way. They are also very easy to implement, for example:

- Have the child read a passage orally while you record it on cassette tape. A primary-grade child can easily learn to tape record his/her own reading, which then saves the teacher time. After a time period, have the child record the same oral passage again and have him/her compare the two performances. Tape-recorded oral reading protocols can be used on a regular basis throughout the school year to provide students with a concrete record of their actual reading progress during that time.

- As an alternative, the child can read aloud along with a commercial or teacher-prepared tape and then replay it, noting his/her errors using some very simple coding system he/she has learned. Later, the child can read the same material again noting if he/she has made fewer errors.

We have often used tape-recorded oral reading protocols very successfully in tutoring sessions of various kinds. However, we have found that teacher-prepared tapes are normally more effective than are commercial tapes since the child usually reads more slowly than the commercial reader. The teacher-prepared tapes provide the child with greater feelings of success.

Oral Reading Miscue Analysis

The concept of oral reading miscue analysis is mainly credited to the work of Kenneth and Yetta Goodman of the University of Arizona, and to some of their associates.

Miscue analysis is based upon the study of psycholinguistics. Stated simply, this theory maintains that deviations from the printed text are not truly *errors* but instead are *miscues*. They normally are classified into some variation of the following:

- *graphophonic (graphonic or graphic) miscues*—those deviations in which there is a graphic change in the deviation (the substitution of *talk* for *take*)
- *semantic miscues*—those deviations in which there is a meaning change in the deviation (the substitution of *house* for *horse*)
- *syntactic miscues*—those deviations in which there is a substitution in the grammatical structure of the sentence (turning a question into a statement)

Miscue analysis also maintains that some deviations from print are more important than others. Those miscues are considered to be the most significant if they interfere with comprehension or change the meaning of the material greatly. On the other hand, some deviations do not alter the meaning of the material very much. I call the former type of miscues *major oral reading miscues* and the latter *minor oral reading miscues* (explained in detail in the next section of this chapter).

The work of Yetta Goodman, Dorothy Watson and Carolyn Burke and others is presented in *Reading Miscue Inventory: Alternative Procedures* (Katonah, NY: Richard C. Owen, 1987). Although it is possible for the reading teacher or special education teacher to use this inventory, I have found it time-consuming and therefore not particularly well suited for the busy reading teacher.

One useful, fairly simple system for coding oral reading miscues which you might consider using was developed by Susan B. Argyle and is described in her article "Miscue

Analysis for Classroom Use" (*Reading Horizons*, 29, Winter 1989, pp. 93-102). Very simply, it attempts to determine if the miscue caused a meaning change, a graphic change, or was a self-correction. If the student's miscues resulted in few meaning changes, they undoubtedly are not very significant since they probably would not interfere with comprehension. If the student made a number of miscues that resulted in graphic changes, he/she possibly may need additional instruction or reinforcement in phonic analysis or structural analysis depending upon their frequency or whether they interfered significantly with comprehension. If the student made a number of self-corrections, he/she probably does not have a very significant reading problem as compared with the student who does not recognize his/her miscues and therefore does not attempt to correct them.

In general, Argyle recommends the following steps for using class miscue analysis:

1. Choose reading material that is unfamiliar to your students. This may be part of a basal reader story or a passage from a content textbook. Usually even adept readers make some miscues with totally unfamiliar material.
2. Copy the reading selection.
3. If you want to administer this material individually, tell the students that it is not a test, in order to reduce their anxiety.
4. Have the student read the passage orally without any preparation. Tape recording helps you to code all of the miscues but may not be completely practical in a noisy setting. It is possible to code the errors while the student reads, but it is fairly difficult.
5. Place the miscues on a summary sheet so that they can be analyzed.

Here is a very brief example of how Argyle's coding system may work:

Omission	a (gravel) road
Addition	new a gravel road
Pause	a/gravel/road
Substitution	a gravel road ride
Repetition	a <u>gravel</u> road
Reversal	a gravel road
Correction	a gravel road
Word Supplied by Teacher	a gravel road

Illustration of the Oral Reading Coding System

An oral reading passage entitled "The Friendly Deer" was written on the second-grade reading level and taken from my book, *Reading Teacher's Complete Diagnosis and Correction Manual* (West Nyack, NY: The Center for Applied Research in Education, 1988, page 78). It was given to Aimee, a second-grade child who had evidenced reading difficulties. The passage was tape recorded, and Aimee's teacher coded her miscues using the system just described. The coded copy of this reading passage is now included.

THE FRIENDLY DEER

(Second-Grade Reading Level)

My father and I were ^{driving} down a gravel road in the North Woods. Suddenly we saw a ^{big deer} ~~large deer~~ standing by the side of the road about a ^{old} ~~black~~ away. He was looking at us.

My father drove very slowly closer to the deer. After awhile, our car was ^{standing} right beside the deer. We stopped ^{driving} and the deer never moved. He looked at us with his big brown eyes, and we looked ^{black} ~~back~~ at him. After a little while, he put his ^{tall} ~~tail~~ down and started to wag it just like a dog. His ^{tall} ~~tail~~ was brown on top and white ~~underneath~~ and not very long. He wagged it several times and seemed so friendly. Then the deer made several ^{really} noises that sounded like he was talking to us. It was like ~~snorting~~ sound. He seemed to really like us.

After a ^{very} little while, the deer walked slowly into the woods still snorting. I wonder who he ^{thought} ~~thought~~ we were. He wasn't afraid of us at all and he really seemed to like us. Both my father and I hope we can see him again ^{somewhere} ~~someday~~.

SUMMARY SHEET OF ORAL READING MISCUES

Student's Name _____ Date _____

TEXT	MISCUE	MEANING CHANGE	GRAPHIC			SELF-CORR.
			B	M	E	
1. driving	diving	yes	—	✓	✓	
2. gravel	—	partial	—	—	—	
3. Suddenly	—	partial	—	—	—	
4. large	big	partial	—	—	—	
5. deer	deck	yes	✓	—	—	
6. —	old	partial	—	—	—	
7. block	black	yes	✓	—	✓	
8. slowly	—	yes	—	—	—	
9. —	standing	partial	—	—	—	
10. driving	diving	yes	—	✓	✓	
11. big	—	partial	—	—	—	
12. back	black	yes	—	✓	✓	
13. tail	tall	yes	✓	—	✓	
14. wag	—	yes	—	—	—	
15. tail	tall	yes	✓	—	✓	
16. underneath	—	yes	—	—	—	
17. wagged	—	yes	—	—	—	
18. several	—	yes	—	—	—	
19. several	—	yes	—	—	—	
20. really	—	yes	—	—	—	
21. snorting	—	partial	—	—	—	
22. —	very	yes	—	—	—	
23. slowly	—	partial	—	—	—	
24. thought	though	yes	—	—	—	*
25. at	—	partial	—	—	—	
26. all	—	partial	—	—	—	
27. again	—	partial	—	—	—	1
28. someday	somewhere	yes	✓	—	—	
			5/	3/	6/	

Total 100%/ 18%/ 11%/ 21%/ 4%

Aimee's teacher then transferred her miscues to a brief summary sheet she had constructed. This summary sheet contains a list of all of Aimee's oral reading miscues. For each miscue the correct word is written first. Then as close a representation as possible of the child's response is written in each instance. If the miscue resulted in a complete meaning change, the word *yes* is written, while if only a partial meaning change occurred, the word *partial* is written. Next, each miscue is analyzed in terms of a graphic change in either the *beginning*, *the middle*, or *the end of the word*. In either instance a — is normally written for a miscue in that part of the word, while a ✓ is written for a correct response in that part of the word. If the child self-corrects a miscue, the self-correction also is noted.

After coding Aimee's responses on the summary sheet, her teacher attempted to analyze some of her reading strengths and weaknesses mainly in terms of patterns of behavior which can be seen. (A similar type of analysis is done in the early intervention Reading Recovery program which is described in detail in Chapter 5.) The reading teacher will find that it takes considerable time to become adept in the interpretation of oral reading miscues and to develop in-depth understanding of the reading process.

You will notice that Aimee made seventeen errors that interfered with comprehension and eleven miscues that only partially interfered with comprehension.

The percentages of graphophonic (phonic) similarities that Aimee made were also coded by her teacher. You will notice that Aimee made a total of 28 oral reading miscues on this passage out of a total of 194 words. This indicates that she mispronounced about 14 percent of the words and pronounced about 86 percent of them correctly. This percentage is below the 90 to 95 percent level that ordinarily comprises the *instructional reading level*. Therefore, this passage probably is on Aimee's *frustration reading level*.

From the number of miscues that interfered fairly significantly with comprehension, Aimee's teacher inferred that she has some difficulty with reading comprehension. However, because Aimee did make a number of miscues that resulted in only partial meaning changes, her comprehension was not believed to be as inadequate as if she had made all or nearly all meaning changes which were complete.

Aimee's teacher then tried to notice if Aimee appeared to be more competent in identifying the *beginnings*, *middles*, or *endings* of the miscued words. Aimee's teacher noticed that she had the most difficulty with word middles, the next most difficulty with word beginnings, and the least difficulty with word endings. It is fairly typical for a child to have the most difficulty with word middles because they typically contain the vowel sounds which are the most difficult for almost all children to discriminate and to identify. Although a child is usually the most competent in identifying word beginnings, this was not the case with Aimee. However, she was nearly as good at identifying word beginnings as she was word endings. Aimee's teacher also noted that she made only one self-correction, also indicative of a child with significant oral reading miscues who does not *monitor* his/her reading comprehension to see if reading makes sense.

Since the slash marks in the coding of Aimee's reading behavior indicate pauses in her oral reading, it appears that although she does not really have oral reading fluency, there are not as many pauses as are typical of students who truly read in a word-by-word manner.

In summary, here are some of Aimee's reading strengths:

- a fair knowledge of word endings and beginnings
- fair oral reading fluency

Here are some of her reading weaknesses:

- comprehension
- making meaning changes that have semantic acceptability (make sense in sentence context)

- ability to identify word middles
- the use of self-corrections or monitoring her own reading

Aimee's program of reading improvement should contain a number of different elements to ensure her optimum reading progress. She certainly must be given reading materials that are on her own instructional or independent reading level. Additional analysis should be done to determine this level with some degree of accuracy. One way of doing this is with the use of the "Individual Reading Inventory" (described and illustrated in detail in the next section of this chapter). She must also receive extensive instruction and reinforcement in the importance of using context clues to determine the meaning of unknown words and of monitoring her own reading carefully by making self-corrections when appropriate. In addition, she needs instruction and reinforcement in the various elements of reading comprehension and metacognition (monitoring her own reading to ensure that she is understanding). Strategies and materials for improving both comprehension ability and metacognition at Aimee's reading level are found in Chapter 6 of this *Handbook*.

Aimee should probably also have some instruction and/or reinforcement in the use of phonic analysis, especially in relation to word middles (long and short vowel sounds). Strategies and materials for this purpose are found in Chapter 5 of this *Handbook*.

In summary, the preceding is just one way in which a variation of oral reading miscue analysis can be used to determine a student's reading strengths and weaknesses. You will notice that although it is fairly simple to implement and modify, since it is an informal device, it does require considerable experience and knowledge of the reading process to administer. This technique, therefore, would have to be used judiciously by an inexperienced teacher of reading.

The Individual Reading Inventory

The Individual Reading Inventory (IRI) can also be called an informal reading inventory. It is an informal device designed to determine a student's approximate *independent, high instructional, instructional, low instructional, and frustration reading levels*. The inventory can also be used to determine a child's specific reading skills, competencies, and weaknesses. Although it can be given to all students in an elementary classroom, it normally is only given to disabled readers or learning-handicapped students due to the time involved in its individual administration and scoring. Most often, it is given near the beginning of tutoring sessions by Chapter I reading teachers and by teachers in a reading clinic for disabled readers with whom they are going to work. However, it can certainly be a useful assessment device for learning-handicapped students.

Although the Individual Reading Inventory is not accepted as a useful diagnostic device by all contemporary reading specialists, it can be fairly useful in determining a child's *tentative reading levels* and reading competencies and weaknesses. However, the results of an IRI always should be thought of as only a very tentative indicator of a child's independent, instructional, frustration, and capacity levels.

The IRI as it is used today probably originated with Emmett A. Betts and his doctoral student, Patsy A. Kilgallon. Kilgallon established criteria for accuracy in word identification and comprehension which she then tested on forty-one students ("A Study of Relationships Among Certain Pupil Adjustments in Language Situations," doctoral dissertation, Pennsylvania State College, 1942). In their version of the IRI, the students read each passage silently and then orally, a different procedure than normally used when giving the IRI today. Betts then determined the independent, instructional, and frustration reading levels and also the listening comprehension level in his textbook *Foundations of Reading Instruction* (New York: American Book Company, 1946, pp. 438-485).

NOTE: I use somewhat different criteria in this book as a result of my experience with hundreds of children over the past twenty-nine years.

When using the graded word lists on any IRI, it is normal to have a child begin pronouncing the words aloud on a word list that is at least two reading levels below the estimated instructional reading level. Have the student continue pronouncing the words on the graded word lists until he/she reaches the point where he/she is able to pronounce fewer than about 80 percent to 90 percent of the words on a list correctly. Later, when you evaluate the performance on the graded word lists, a + can be written by each word pronounced correctly, while a - or 0 can be written by each word pronounced incorrectly. The child's mispronunciation of a word can also be written on the teacher's copy of the word lists. The percentages contained on the word list of any IRI can be used to determine the child's ability to pronounce the word lists in terms of his/her independent, instructional, or frustration reading levels.

Then you normally have the child begin reading the graded passages. In some instances, one set of passages can be used to assess performance in oral reading, while a corresponding form can be used to assess performance in silent reading so that a comparison can be made between a child's oral and silent reading abilities. Sometimes there is quite a difference in this ability. This certainly may be the case with a learning handicapped student.

In any case, have the child begin reading the paragraph that corresponds to the level at which 80 percent or 90 percent of the listed words are recognized. It is very important to have the child begin reading aloud at a low enough level so that he/she will experience success at the beginning and not become discouraged. The child should continue reading succeeding paragraphs aloud until the frustration reading level is reached, indicated by signs of frustration and nervousness. This point is clearly evident even to an inexperienced reading teacher. After the child has completed reading each paragraph, ask the comprehension questions which accompany that paragraph. If you wish, you also can read aloud the next difficult paragraph and ask the comprehension questions that accompany it in order to establish the *potential* or *capacity level*. This is the reading level which a child theoretically may be able to reach under optimum conditions.

At a later time, you can mark the child's oral reading miscues by playing back the tape recording. You can mark the child's oral reading miscues by a variety of systems. Here is the one I use, but any system with which you are familiar is equally useful:

- **Omission**—Circle the entire word or letter sound.

elephant

- **Additions**—Insert with a caret.

nice
^

- **Substitutions/Mispronunciations**—Draw a line through the word and write in the substituted word.

where were

- **Reversals**—Use the transposition symbol.

qu[.]ickly and

- **Repetitions**—Use a wavy line to indicate a repetition of more than two words.

a black umbrella

- **Words Aided**—If a child says nothing after about five seconds, provide the word and cross it out.

why

Since the two major purposes for giving the graded oral reading paragraphs of an IRI are to determine a child's approximate reading level and to determine the pattern of miscues made, you then must evaluate the child's performance on the paragraphs. Since this is too complicated to explain here, you are encouraged to examine a source such as the following if you need more help in understanding it:

Wilma H. Miller, *Reading Diagnosis Kit, Third Edition* (West Nyack, New York: The Center for Applied Research in Education, 1986, Chapters 3 and 8.)

Here are the next steps to take in evaluating the IRI contained in this *Handbook*. You should consult the manual of any other IRI you may want to give to locate the corresponding material:

1. Count as a *major oral reading miscue* and deduct *one point* for any error that interferes with comprehension. Some examples may be *red* for *rain*, *stop* for *spot*, *horse* for *home*, *talk* for *take*, or *one* for *once*.
2. Count as a *minor oral reading miscue* and deduct *one-half point* for any deviation from the printed text that does *not* seem to interfere significantly with comprehension. Some examples are *old* for *elderly*, *fast* for *quickly*, *little* for *tiny*, *white* for *ivory*, and *large* for *huge*.
3. Count an *addition* as half an oral reading miscue if it does not change the meaning of the material significantly. Usually an addition is a minor oral reading miscue since it does not interfere very significantly with comprehension.
4. Do *not* count a *self-correction* as an error if it occurs within a short period of time such as five seconds. A self-correction usually indicates that the student is *monitoring* his/her own reading and attempting to read for meaning.
5. Count a *repetition* as half an oral reading miscue if it occurs on two or more words. A repetition of a single word may indicate that the student is trying to monitor his/her own reading or correcting the error.
6. Do not count more than *one oral reading miscue* on the same word in any one

paragraph. For example, if the child mispronounces the same word more than once while reading a graded passage, count it as an error only once.

7. Do not count an oral reading miscue on any *proper noun* which is found in any graded passage.
8. Deduct *one point* for any word that a student cannot pronounce after about five seconds *if that word interferes with comprehension*. Deduct *one-half point* for any word that a student cannot pronounce after about five seconds *if that word does not seem to interfere with comprehension*.
9. Do not count oral reading miscues that seem to exemplify a child's *cultural and regional dialect*. To consider this point, you must be quite familiar with the basic characteristics of the child's speech patterns, as in the African-American dialect or the Hispanic dialect.

When you have marked all of the miscues from a series of graded passages, you can use the information just presented to determine the child's approximate independent, instructional, and frustration reading levels. However, you should consult the manual of the IRI you are using for this information since the percentages for the different reading levels vary somewhat.

The characteristics of the three major reading levels used in the IRI included in this *Handbook* are:

- *Independent reading level*—The point at which a child is about 99 percent accurate in word identification and has about 95 percent or better comprehension.
- *Instructional reading level*—The point at which a student is about 90 percent accurate in word identification and has about 75 percent or better comprehension.
- *Frustration reading level*—The point at which a student is less than about 90 percent accurate in word identification and has less than about 50 percent accuracy in comprehension.

From using graded oral reading paragraphs with hundreds of children over a period of many years, adding several other reading levels to the three basic levels can be helpful in placing children in reading materials. You also can use the following three subcategories of reading levels:

- *Low independent reading level*
- *High instructional reading level*
- *Low instructional reading level*

This *Handbook* uses these three subcategories of reading levels in addition to the three basic ones. Since the IRI necessarily is an informal assessment device, you must use your own judgment in arriving at these reading levels, and you must take into account a child's word-identification and comprehension skills together. I usually weigh the child's performance on comprehension more highly than I weigh his/her performance on word identification, since comprehension is obviously more important. As you know, comprehension is the capstone of the reading process. Using the three additional appropriate reading levels is justified since the graded oral reading paragraphs are informal devices and should never be thought of as infallible indicators of a child's accurate reading levels.

It may be useful at this point to indicate how the preceding information can be applied to determine a child's reading level in an actual situation. (Taken from Wilma H. Miller's *Reading Teacher's Complete Diagnosis & Correction Manual*. West Nyack, New York: The Center for Applied Research in Education, 1988, page 80.)

SEEING REDHORSES

(third-grade reading level)

Have you ~~ever~~^{every} seen a redhorse? A redhorse is ~~not~~ any kind of horse, but ~~rather~~^{instead} it is a medium-sized fish.

As Ashley and Tommy and their parents were driving along a ~~road~~^{old} road in the woods in northern Wisconsin, they saw an old man ~~standing~~^{staying} on a small wooden bridge. He was looking down into the creek that went under the bridge. Tommy's father stopped the car, and Tommy jumped out. He asked the old man what he was looking at. The man showed him a ~~huge~~^{big} school of fish that was swimming down the creek. Tommy asked ~~the man~~^{old} what kind of fish they were, and the man said that they were called redhorses. Then the rest of the family got out of the car to look at the fish.

The creek had hundreds and hundreds of redhorses swimming in it. There were so many that some were swimming almost on top of each other. A redhorse is a fish about a foot or more long with a red-colored head and a ~~grey~~^{big} body. Since they swim near the ~~bottom~~ of a creek or river, they are called "~~bottom-feeding~~ fish."

After awhile, Ashley, Tommy, and their parents left. However, they drove by the creek again an hour later. The redhorses were still swimming down the creek. ~~Most~~^{Many} people ~~that~~^{which} the children talked to later said that redhorses are not very good to eat. Many of ~~these~~^{the} people had never seen such a big school of them either. No one seemed to know how they got their funny name.

The child made the following seven major miscues, each of which resulted in a deduction of one point. These miscues included substitutions, omissions, and words aided. The substitutions and omissions were considered major oral reading miscues since the meaning of the material was altered significantly. The omission of the word *red-colored* was considered a major miscue since that word was considered significant to the overall meaning of the passage. Here is a list of the major miscues in this passage:

every	red-colored
not	bottom
staying	bottom-feeding
school	

In addition, the child made the following twenty minor miscues, each of which resulted in a deduction of one-half point. These miscues included substitutions, omissions, repetitions, and additions. The substitutions and omissions were considered to be minor oral reading miscues since the meaning of the material was not changed significantly. The additions also were thought of as minor miscues since they did not alter the meaning of the material significantly. As stated earlier in this section, a repetition of two or more words results in a deduction of one-half point.

Here is a list of the minor oral reading miscues in this passage:

rather	of the family
medium-sized	hundreds and hundreds
and their parents	almost
old	big
northern	and their parents
wooden	again
He was looking	most
He asked the old man	that
huge	these
old	either

The child made a total of seventeen miscues (seven points and ten points). Subtract 17 from 259 (the number of words in this passage) to determine how many words the student pronounced correctly—**242**. Divide 259 (words in this passage) into 242 (total words that the student pronounced correctly) to obtain the percentage of correct words. This results in approximately 93 percent accuracy in word identification, which is the high instructional reading level. The student would have had to attain about 233 words correctly pronounced to reach the low instructional reading level.

Remember to use your judgment in determining the low independent, high instructional, and low instructional reading levels and to weigh the comprehension score somewhat higher than the word identification score for the reasons explained earlier.

Samples of Word Lists and Graded Oral Reading Paragraphs

Included here are sample word lists and graded oral reading paragraphs from the primer through the twelfth-grade reading level. Two sets of these materials should be duplicated from this book. One set of word lists should be duplicated for the student to pronounce, and another set should be duplicated on which to record the scores. One set of graded oral

reading paragraphs at the appropriate reading level should be duplicated without the comprehension questions and the formula for scoring. This is the set from which the student reads aloud. The other set contains the comprehension questions and the formula for scoring and is the set which you evaluate. The child's set (both the word lists and the graded passages) can be laminated for durability, and it should not show the reading level.

Two additional sets of graded word lists and oral reading passages can be found in the following source:

Wilma H. Miller, *Reading Diagnosis Kit, Third Edition* (West Nyack, New York: The Center for Applied Research in Education, 1986, Chapter 8)

One set of word lists and graded passages can be found in the following source:

Wilma H. Miller, *Reading Teacher's Complete Diagnosis & Correction Manual* (West Nyack, New York: The Center for Applied Research in Education, 1988, pages 69–95)

These additional word lists and passages can be used for pretesting and post-testing or for different kinds of administration such as oral-silent-oral, silent-oral, oral-silent, and silent-oral-silent.

It is very difficult to discriminate between Level Nine through Level Twelve. Therefore, the reading levels determined from these four word lists and two sets of reading passages should always be considered very tentative.

GRADED WORD LISTS

Preprimer

1. said
2. big
3. help
4. come
5. can
6. have
7. but
8. are
9. three
10. back
11. look
12. green
13. you
14. make
15. then
16. house
17. not
18. play
19. you
20. will
21. black
22. to
23. and
24. see
25. book

90%—22 or 23 correct

Primer

1. was
2. could
3. children
4. know
5. what
6. saw
7. around
8. mother
9. now
10. old
11. fly
12. very
13. have
14. into
15. yellow
16. tree
17. what
18. about
19. went
20. cake
21. all
22. way
23. hold
24. your
25. over

90%—22 or 23 correct

First Reader

1. please
2. flower
3. snowman
4. brown
5. children
6. father
7. drop
8. birthday
9. men
10. kind
11. story
12. cry
13. tell
14. street
15. buy
16. why
17. rabbit
18. ball
19. walk
20. paint
21. behind
22. give
23. her
24. again
25. laugh

90%—22 or 23 correct

Graded Word Lists, continued

Second Reader

1. beautiful
2. everyone
3. should
4. write
5. sorry
6. people
7. instead
8. breakfast
9. cupcake
10. eyes
11. love
12. reach
13. people
14. save
15. strong
16. carry
17. first
18. together
19. friend
20. present*
21. write
22. hurt
23. fall
24. until
25. does

90%—22 or 23 correct

Third Reader

1. magic
2. beginning
3. thankful
4. crawl
5. museum
6. reason
7. bush
8. planet
9. discover
10. enough
11. precious
12. fright
13. honor
14. several
15. unusual
16. hour
17. escape
18. wiggle
19. soup
20. enemy
21. either
22. remember
23. matter
24. inventor
25. diamond

90%—22 or 23 correct

Fourth Reader

1. predict
2. knowledge
3. canoe
4. vicious
5. decorate
6. windshield
7. parachute
8. official
9. dignity
10. island
11. dozen
12. exercise
13. bound
14. machine
15. experience
16. motion
17. coward
18. servants
19. legend
20. force
21. nephew
22. barrel
23. weather
24. ghost
25. weight

90%—22 or 23 correct

*Either pronunciation should be considered correct.
pres'ent
present'

Graded Word Lists, continued

Level Five

1. territory
2. plateau
3. muscle
4. telegram
5. grease
6. pierce
7. orchard
8. pouch
9. parallel
10. argument
11. dissolve
12. manager
13. considerable
14. salmon
15. scientist
16. briskly
17. kindle
18. region
19. typical
20. octave
21. vinegar
22. amount
23. intestines
24. prevent
25. yarn

90%—22 or 23 correct

Level Six

1. microphone
2. privacy
3. particle
4. reluctant
5. applause
6. demon
7. liberty
8. pounce
9. wreath
10. moisture
11. sensitive
12. insurance
13. contract*
14. midstream
15. antibiotic
16. burro
17. helicopter
18. hearth
19. transfusion
20. envelope
21. request
22. contrary
23. sausage
24. surf
25. hustle

90%—22 or 23 correct

Level Seven

1. humidity
2. monarch
3. terrain
4. algebra
5. alliance
6. neutral
7. boulevard
8. geological
9. horizontal
10. perpetual
11. exception
12. sculpture
13. warden
14. exaggerate
15. collapse
16. progressive
17. famine
18. merchandise
19. shrine
20. ambitious
21. thresh
22. notable
23. uranium
24. segment
25. domestic

90%—22 or 23 correct

*Either pronunciation should be considered correct.
con'tract
contract'

Graded Word Lists, continued

Level Eight

1. miscellaneous
 2. jaunty
 3. quota
 4. competent
 5. juvenile
 6. sequence
 7. belligerent
 8. recruit
 9. intrigue
 10. tremor
 11. discipline
 12. prescription
 13. arrogant
 14. custody
 15. embankment
 16. yacht
 17. authentic
 18. browse
 19. rehearsal
 20. currency
 21. universal
 22. substantial
 23. masquerade
 24. politician
 25. extension
- 90%—22 or 23 correct**

Level Nine

1. memorable
 2. ecstasy
 3. consecutive
 4. aggressive
 5. priority
 6. indispensable
 7. legitimate
 8. aquatic
 9. originate
 10. obsolete
 11. countenance
 12. malicious
 13. quadruple
 14. regime
 15. heathen
 16. avalanche
 17. adversary
 18. gist
 19. physique
 20. spouse
 21. agitate
 22. enviable
 23. judicial
 24. harmonize
 25. insignia
- 90%—22 or 23 correct**

Level Ten

1. vigilant
 2. pilgrimage
 3. opaque
 4. qualm
 5. heirloom
 6. eccentric
 7. superlative
 8. disreputable
 9. crypt
 10. callous
 11. rhapsody
 12. exuberant
 13. conveyance
 14. atrocious
 15. artisan
 16. infidel
 17. fallacy
 18. oratory
 19. phenomenal
 20. devastate
 21. eloquent
 22. callous
 23. spasm
 24. bereaved
 25. fictitious
- 90%—22 or 23 correct**

Graded Word Lists, continued

Level Eleven

1. labyrinth
2. exhilarated
3. virtuoso
4. philanthropy
5. vehement
6. oscillate
7. epitaph
8. celestial
9. nutritious
10. physiology
11. memoir
12. awry
13. gauntlet
14. financier
15. hypothesis
16. whimsical
17. confidentially
18. amethyst
19. gullible
20. kinetic
21. assimilate
22. claimant
23. knoll
24. bohemian
25. malign

90%—22 or 23 correct

Level Twelve

1. harangue
2. gregarious
3. ignominious
4. colloquial
5. blasphemy
6. utilitarian
7. echelon
8. desultory
9. facsimile
10. tertiary
11. zealot
12. rhetoric
13. digression
14. gauche
15. charlatan
16. epoch
17. digression
18. obtuse
19. symmetry
20. prolific
21. pedagogy
22. bourgeois
23. atrophy
24. inveigle
25. pique

90%—22 or 23 correct

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

A TAN DOG (Preprimer)*

Pat has a tan dog.

The dog's name is Jill.

Pat and Jill take two walks a day.

Jill has a blue ball.

She likes to run after her ball.

She likes to jump too.

She likes to eat her dog food.

Pat has a lot of fun with Jill.

Jill has fun too.

*The readability level of this passage was computed by the Spache Readability Formula.

A TAN DOG

1. What is the dog's name? (L-E)*

Jill

2. What color is Jill's ball? (L-E)

blue

3. Who do you think usually throws the ball for Jill? (I-I)

Pat

any other member of Pat's family

any one of Pat's friends

4. Why do you think that Pat and Jill go for walks every day? (I-I)

Jill needs to go to the bathroom

Jill likes to walk

Pat likes to walk with Jill

Jill likes to be outside

5. What do you think are some of the ways in which Pat has fun with Jill? (I-I)

throwing the ball for her

walking with her

playing with her

Number of words in this selection 54

Number of word-identification miscues

Word-Identification Miscues

Independent reading level 0

Low independent reading level approx. 1

High instructional reading level approx. 2-4

Instructional reading level approx. 5

Low instructional reading level approx. 6

Frustration reading level 7+

Number of comprehension errors

Comprehension Errors

Independent reading level 0

Instructional reading level 1

Frustration reading level 2+

*In each of the oral reading passages in this *Handbook*, L-E represents Literal—Explicit and I-I represents Interpretive—Implicit.

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

THE BABY DEER (Primer)*

I saw a baby deer last summer. It was brown with white spots all over it. The baby deer had pretty big brown eyes. It had a shiny black nose too.

I saw the baby deer run after its mother. One time it almost fell down on the road. Then the baby deer's mother ran into the woods. The baby deer ran into the woods after her. I saw the mother deer waiting in the woods for her baby. Then I saw the baby deer run to its mother in the woods.

*The readability level of this passage was computed by the Spache Readability Formula.

THE BABY DEER

1. What color were the baby deer's eyes? (L-E)
brown
2. Who was the baby deer following? (L-E)
its mother
the mother deer
3. Why do you think the baby deer almost fell down? (I-I)
its legs were long and thin
it couldn't run as fast as its mother could
4. Why do you think the mother deer was waiting for her baby in the woods? (I-I)
so that the baby deer wouldn't get lost
a mother deer always tries to take care of her baby
she knew that her baby couldn't run as fast as she could
5. Why do you think the mother deer waited in the woods for her baby instead of waiting on the road? (I-I)
it was safer to wait in the woods
a car couldn't hit either one of them in the woods
a deer feels safer in the woods than it does on a road

Number of words in this selection 92

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-1
Low independent reading level approx. 2-3
High instructional reading level approx. 4-6
Instructional reading level approx. 7-9
Low instructional reading level approx. 10-11
Frustration reading level approx. 12+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0
Instructional reading level 1
Frustration reading level 2+

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

THE BIG, BIG TURTLE (1)*

One day last summer Joey saw a big, big turtle. Joey lives with his mother and father and little sister. They all live in a house in the big woods.

One morning Joey was going to take his dog out. He saw a big, big turtle in the garage. Joey and his dog almost stepped on the turtle.

Joey and his mother tried all day to get the turtle out of the garage. They didn't want it to die. They tried to give it meat to eat. They held the meat so that the turtle would go out. They tried to push the turtle with a rake. At last the turtle went out of the garage. He went down to the lake. There he was safe.

*The readability level of this passage was computed by the Spache Readability Formula.

THE BIG, BIG TURTLE

1. What did Joey find in the garage? (L-E)
a turtle
a big, big turtle
2. What did Joey and his mother try to give the turtle to eat? (L-E)
meat
3. Why do you think the turtle might die if it stayed in the garage? (I-I)
it would starve to death
it wouldn't have any food to eat
it wouldn't have any water to drink
4. Why do you think Joey and his mother had to be careful when they tried to push the turtle out with the rake? (I-I)
so that they wouldn't hurt it
5. Why do you think the turtle went back to the lake when it left the garage? (I-I)
it would be safe there
it was used to living by the lake

Number of words in this selection 126

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-1
Low independent reading level approx. 2-3
High instructional reading level approx. 4-6
Instructional reading level approx. 7-11
Low instructional reading level approx. 12-13
Frustration reading level 14+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0
Instructional reading level 1
Frustration reading level 2+

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

MOST ANIMALS DON'T WANT TROUBLE (2)*

Did you know that most wild animals try to avoid trouble if they can? Jenny didn't learn that until she spent the summer in the North Woods with her grandfather and grandmother.

Jenny first found that out about wild animals when she was walking on a road in the woods one day. She saw a porcupine way down the road coming toward her. Jenny could tell that the porcupine didn't seem to see her. As she and the porcupine came closer and closer, Jenny really wondered what it would do.

Finally, as they met on the road, the porcupine saw her. As soon as it saw her, the porcupine turned and walked into the woods as quickly as

*The readability level of this passage was computed by the Spache Readability Formula.

Oral Reading Passage, continued

it could. Even though the porcupine had sharp quills, it didn't want trouble.

Another time Jenny met a large black bear when she was walking on the road. The bear looked at Jenny for awhile. Then it walked across the road into the woods. It also didn't want trouble.

MOST ANIMALS DON'T WANT TROUBLE

1. Who did Jenny spend the summer with? (L-E)
her grandfather and grandmother
2. What animal has sharp quills? (L-E)
a porcupine
3. Why do you think most wild animals try to avoid trouble if they can? (I-I)
**they don't like to fight unless they have to
they only fight if they don't have any other choice**
4. How do you think a porcupine can use its quills to protect itself if it has to? (I-I)
**it can stick them into another animal if that animal gets too close
once an animal has had quills in it from a porcupine, it never
bothers a porcupine again**
5. Why do you think that the bear looked at Jenny for a while? (I-I)
**it may have never seen a person before
it was curious about who Jenny might be**

Number of words in this selection 167

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-2

Low independent reading level approx. 3-4

High instructional reading level approx. 5-8

Instructional reading level approx. 9-15

Low instructional reading level approx. 16-17

Frustration reading level 18+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0

Instructional reading level 1

Frustration reading level 2+

ORAL READING PASSAGE

Name _____ Grade _____ Teacher _____ Date _____

BILL COSBY (3)*

Bill Cosby is a very good example for all children that they can be anything that they want to be.

When Bill was a child, he was very poor. Although he was very bright, he did not do well in school. Instead of studying, he usually told jokes to the other children. However, he always promised his mother that he would get an education someday. He kept that promise after he had become famous.

After having been in the Navy and in college for awhile, he began working as a comic in clubs. After a little while, he began acting on television in a show with a white man. People liked this show, and Bill Cosby made a lot of money. He was the first black man who was equal to a white man on television.

After making some other television shows and commercials, Bill Cosby began acting in a show called the *Cosby Show*. In it Bill Cosby played a doctor, and his wife was a lawyer. Their family had five children. This show became very popular, and both black and white children liked it very much. Bill Cosby tried hard to act like a real father in this show.

In real life Bill Cosby is married and has five children. For most of the time when his children were growing up, the family lived on a farm in the East.

All of his life Bill Cosby has tried hard to show that people are mostly alike no matter what color skin they have.

*The readability level of this passage was computed by the Spache Readability Formula.

BILL COSBY

1. What did Bill Cosby often do in school instead of studying? (L-E)
tell jokes
2. How many children does Bill Cosby have in real life? (L-E)
five
3. Why do you think Bill Cosby told jokes in school instead of studying? (I-I)
he didn't like to study
he wanted the other children in his class to like him
he wanted attention from the other children and from his teacher
4. Why was it important to Bill Cosby to play a black man on television who was equal to a white man? (I-I)
black people are as good as white people
black people and white people are the same except for the color of their skin
5. Why did both black children and white children like the *Cosby Show*? (I-I)
it showed what a real family can be like
it showed a father and mother that most children would like to have

Number of words in this selection 255

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-3

Low independent reading level approx. 4-7

High instructional reading level approx. 8-12

Instructional reading level approx. 13-21

Low instructional reading level approx. 22-25

Frustration reading level 26+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0

Instructional reading level 1

Frustration reading level 2+

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

CANADA GEESE (4)*

Canada geese are among the most fascinating and amazing of any of the birds in the world. Most of us have seen large flocks of Canada geese flying in a V outline high in the sky in the spring and fall.

Scientists have studied the migration of Canada geese for many years. Although they still do not really understand how Canada geese know exactly where to fly, they are beginning to figure out something about it. Scientists now believe that each Canada goose is born imprinted with a route which follows the stars. This can be called a "star map" which shows each Canada goose exactly where to fly.

Canada geese always fly in a V outline. The leader of the outline becomes very tired from breaking the air waves. That is why a flock of geese changes its leader many times on each migration north or south. The rest of a flock flies in the V outline to take advantage of the updrafts made by the wings of the bird in front of it. These updrafts make it easier for each Canada goose to fly.

A Canada goose has a shining black head and neck with an oval patch of white. It has a pale gray chest and a gray-brown body and wings. It also has a white belly and black tail feathers. The average goose weighs about ten pounds. Canada geese use their legs as a landing gear when they come down from flying much as an airplane uses landing gears when landing in an airport.

All baby Canada geese are born in the summer in Canada when it is safe for them. However, they each mate for life in the winter somewhere in the south.

*The readability level of this passage was computed by the Dale-Chall Readability Formula.

CANADA GEESE

1. What kind of outline do Canada geese fly in? (L-E)

V outline

2. What part of a Canada goose's body serves as landing gear? (L-E)

its legs

3. How could a scientist try to prove that Canada geese are born with a "star map"? (I-I)

**try to let a flock of young geese fly south without an experienced leader
put geese in a planetarium where there are make-believe stars**

4. What parts of a leader goose's body may become the most tired? (I-I)

its wings

its neck

5. Why do you think that Canada is a fairly safe place for baby Canada geese to be born in? (I-I)

it is not likely hunters are there

there may not be many enemy animals

there are not many people there

Number of words in this selection 288

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-3

Low independent reading level approx. 4-7

High instructional reading level approx. 8-12

Instructional reading level approx. 13-25

Low instructional reading level approx. 26-29

Frustration reading level 30+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0

Instructional reading level 1

Frustration reading level 2+

ORAL READING PASSAGE

Name _____ Grade _____ Teacher _____ Date _____

THE OCTOPUS (5)*

The octopus is a fascinating although in some ways a frightening creature of the sea. As one example, an octopus shoots water from the tube that protrudes from the loose bag of skin covering its body. This helps it to move quickly through the sea.

An octopus has eight webbed arms. Each arm is about two feet long and contains double rows of powerful suction discs. These discs are helpful to an octopus in capturing its food. One of the most unique features of an octopus is its ability to grow back an arm which has been pulled off by an enemy such as an eel. There is no bleeding when the arm is torn off since an octopus can contract its blood vessels. It takes a young octopus about six weeks to grow a new arm.

When an octopus finds a lobster for its meal, it floats down over the lobster like a parachute and envelopes it. Then the octopus bites its victim with the black beak that is hidden in the circle of its arms. An octopus paralyzes its victim with the venom contained in its bite.

Another interesting fact about an octopus is its ability to change colors depending upon the emotions that it is feeling. It has a transparent outer layer of skin that can be red, brown, or very pale depending upon whether the octopus is happy, excited, or frightened.

A female octopus usually lays about 50,000 eggs, each one the size of a grain of rice. Each tiny egg is attached to a thread. The octopus then glues each cluster of eggs to the ceiling of a cave which she has chosen. The eggs hang there like tiny bunches of grapes. Of the baby octopuses that are hatched about a month later, only about two or three live long enough to become adults.

*The readability level of this passage was computed by the Dale-Chall Readability Formula.

THE OCTOPUS

1. How many arms does an octopus have? (L-E)
eight
2. What type of food are octopus eggs like? (L-E)
grains of rice
3. What might happen to an octopus if it could not contract its blood vessels when it has an arm torn off? (I-I)
it would bleed to death
it couldn't stop the bleeding
4. Why do you think it is helpful to an octopus to have its beak well hidden? (I-I)
its victim can't see the beak until it is bitten by it
its victim doesn't know what to protect itself from
5. What dangers do you think a baby octopus faces? (I-I)
fish could eat it
crabs could eat it
shrimp could eat it
shore birds could eat it

Number of words in this selection 310

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-3
Low independent reading level approx. 4-8
High instructional reading level approx. 9-13
Instructional reading level approx. 14-28
Low instructional reading level approx. 29-31
Frustration reading level 32+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0
Instructional reading level 1
Frustration reading level 2+

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

THE NAVAHO NATIVE AMERICANS (6)*

The Navaho tribe of Native Americans undoubtedly is among the most well known and influential of any of the tribes that are found in the United States. The Navaho people live on a huge reservation in the southwestern area of the country which encompasses parts of northeastern Arizona, northwestern New Mexico, and a small portion of Utah.

The Navahos are especially well known for their silver and wool crafts. The Navaho silversmiths, who are usually men, can shape silver so that it shimmers like the brilliance of the desert sun where these people live. Often turquoise gem stones are combined with silver in pieces of jewelry such as necklaces, bracelets, earrings, and pendants. The Navaho silversmiths also design and execute belts, belt buckles, and superb serving trays. The Navaho weavers, who typically are women, work on looms to create brilliantly colored blankets and rugs. The geometric patterns seem to represent the mesas, cliffs, and canyons which characterize Navaho country. Navaho men learned how to use silver from Mexican silversmiths, while Navaho women probably learned weaving from their Pueblo Native American neighbors in the late 1600s.

Most Americans who are not Native American are astonished to learn that the Navahos played a unique and important role in helping the United States attain its victory in World War II. Many people were surprised that so many Navahos chose to enlist when their people had been so mistreated by the federal government for so many years. However, an impressive number of Navahos thought of themselves as being both Navaho and American and wished to serve their country. The Navaho

*The readability level of this passage was computed by the Dale-Chall Readability Formula.

Oral Reading Passage, continued

language served as the basis for a unique code in the Pacific theater of war. The Navaho Codetalkers, a group of about two hundred Navahos, contributed a remarkable chapter to their people's proud history. It is unfortunate that this contribution is not well known today.

THE NAVAHO NATIVE AMERICANS

1. In what area of the United States do the Navaho people live? (L-E)
southwestern
southwest
2. In which war did the Navahos play a significant part? (L-E)
World War II
3. Why do you think the Navahos often use turquoise gemstones in their silver jewelry? (I-I)
it may be easy for them to get it
it may be mined in the Southwest
4. Why was the Navaho language probably well suited to be used as a secret code? (I-I)
the Japanese had never heard of it
it was not known by our enemies in the war
it may have been a hard language to understand
5. Why do you think so few Americans know about the Navaho Codetalkers? (I-I)
Native American culture has not been studied very much
in our schools
World War II happened a long time ago

Number of words in this selection 313

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-3
Low independent reading level approx. 4-8
High instructional reading level approx. 9-13
Instructional reading level approx. 14-28
Low instructional reading level approx. 29-31
Frustration reading level 32+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0
Instructional reading level 1
Frustration reading level 2+

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

LORRAINE HANSBERRY—BLACK PLAYWRIGHT (7)*

It is indeed unfortunate that most young people never have heard of the famous black woman playwright Lorraine Hansberry. Had she not suffered a tragic premature death from cancer in 1965 at the age of only thirty-four she might well still be writing memorable plays such as the one for which she still should be remembered.

Lorraine spent her childhood on the south side of Chicago with her father, mother, a sister Mamie, and two brothers Carl and Perry. During her childhood the family attempted to live in an integrated neighborhood but were unsuccessful because of the restrictive ordinances typical of that time. These laws stated that a black family could not move into a segregated neighborhood. Although Lorraine's father challenged the law, he did not win the case until it was tried years later before the United States Supreme Court.

As she was growing up, Lorraine became increasingly aware of the destructive racial prejudice against her people. She determined that she must make a contribution to the true liberation of her people, and she believed that perhaps her writing might be the way. To help her achieve her goal, she studied at the New School for Social Research in New York and also wrote for the black newspaper *Freedom*.

In 1953 Lorraine married a student at New York University who was active in the Progressive Movement named Bob Nemiroff. After her marriage, Lorraine's writing took up much of her time as she worked on novels, several plays, and an opera at the same time. One day she decided to write a genuine, contemporary play describing the lives of a black family living on the south side of Chicago. Although Lorraine's family had been wealthier than that, she had known many black families who lived in ghettos and had struggled to make a better life for themselves. Thus,

*The readability level of this passage was computed by the Dale-Chall Readability Formula.

Oral Reading Passage, continued

Lorraine's idea became the very famous play *A Raisin in the Sun*, which depicts the different ways family members would spend some money if it were available.

Lorraine Hansberry's play *A Raisin in the Sun* was named Broadway's best play of 1959. Lorraine was the first black person and the youngest American playwright ever to receive this award. After she became famous, she continued to work for the Civil Rights Movement. After her death in 1965, Bob Nemiroff, her former husband, whom she had divorced in 1964, read the papers which she had left him in her will. He organized her work into a play called *To Be Young, Gifted, and Black*, a play which still is performed on college campuses.

LORRAINE HANSBERRY—BLACK PLAYWRIGHT

1. What illness caused Lorraine's death in 1965? (L-E)
cancer
2. What is the title of the play that was named Broadway's best play of 1959? (L-E)
A Raisin in the Sun
3. Why do you think restrictive ordinances were unfair? (I-I)
a family should be able to live wherever it wants to and can afford to
a person should not be discriminated against because of his/her race
4. Why do you think it was a good experience for Lorraine to work on the newspaper *Freedom* when she was young? (I-I)
it helped her learn to write
it helped her understand more about the problems that black people face
it helped her meet some new people
5. Why do you think it might be helpful for a white person to see the play *A Raisin in the Sun*? (I-I)
it would show him/her how difficult life can be
it might help him/her understand black people better
it can show him/her what life in the ghetto can be like

Number of words in this selection 437

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-5
Low independent reading level approx. 6-11
High instructional reading level approx. 12-20
Instructional reading level approx. 21-37
Low instructional reading level approx. 38-44
Frustration reading level 45+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0
Instructional reading level 1
Frustration reading level 2+

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

AUSTRALIAN BIRDS THAT USE A THERMOMETER (8)*

The mallee bird of Australia is a superb example of the high degree of instinct that can be found in a wild creature. This unique species of bird is one of the birds known as "mound builders." Its remarkable characteristics only have been understood for about thirty-five years. This species of bird has mainly been studied by an Australian scientist named H. J. Frith.

The mallee bird is about as large as an average turkey. For its nest it builds a huge mound of sand and vegetable rubbish. Each mallee bird devotes eleven out of twelve months of each year to taking care of its nest, an inordinate amount of its entire life span.

In May the male birds dig a large pit in the sand, scraping the earth out with backward thrusts of their large, powerful feet and legs. In June, with the onset of the Australian winter, they fill the pit with vegetable rubbish scratched together from a wide area. The winter rains come then, causing the vegetable rubbish to ferment and heat up. In August the birds mix sand with the decaying vegetable rubbish in a smaller pit at the center of the mound in what will be the actual incubation chamber for the eggs.

The egg laying begins in September by the time the mixture of sand and vegetation in the smaller pit has reached a level of 92° F (33.5°C). Then the compost, the mixture of sand and leaves at the center, is opened up by the mallee bird and if he is satisfied that the temperature is satisfactory, the hen lays an egg in the hole after she has tested the temperature also. The female bird lays eggs one on top of another at intervals of two days through seventeen days for about four months.

The birds test the temperature of the mound daily and are careful to keep it at an even level. If the mound shows signs of becoming overheated, the mallee bird opens it to allow excess heat to escape. If the mound is too cool, it is opened up so that the sun's rays can heat it. The mallee bird apparently is guided by its tongue and the inside of its mouth, which together act as a living thermometer when it picks up a beakful of the materials in the mound.

*The readability level of this passage was computed by the Dale-Chall Readability Formula.

AUSTRALIAN BIRDS THAT USE A THERMOMETER

1. What is the name of the bird described in this passage? (L-E)

mallee bird

2. At what temperature must the mound be kept? (L-E)

92°F or 35.5°C

3. How does a mallee bird know that it must keep its mound at a precise temperature so that its eggs will hatch? (I-I)

it was born with that instinct

it is part of the bird's nature

4. Why do you think the mallee bird has strong legs? (I-I)

it has to dig a large pit in the sand for its nest

it is a hard job to dig a pit in the sand

5. Why do you think the temperature in the mound must be tested every day? (I-I)

if it became too hot or too cold the eggs would not hatch

the eggs require a certain temperature in order to hatch

Number of words in this selection 390

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-4

Low independent reading level approx. 5-10

High instructional reading level approx. 11-18

Instructional reading level approx. 19-33

Low instructional reading level approx. 34-39

Frustration reading level 40+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0

Instructional reading level 1

Frustration reading level 2+

ORAL READING PASSAGE

Name _____ Grade _____ Teacher _____ Date _____

TALES OF SEARCHING FOR HIDDEN TREASURE (9)*

History abounds with unique tales of the different means fortune hunters have employed in their search for hidden treasure such as gold, silver, and jewels of all descriptions. Their efforts ranged from very primitive many years ago to the contemporary scientific means which are commonly used today.

For hundreds of years the divining rod was the primary tool used to presumably locate buried treasure. The branch of a divining rod was always cut from a special tree that commonly was a hazel, a willow, or a holly. However, only an individual who supposedly was endowed with a "special gift" was able to induce the divining rod to twist and turn toward earth containing gold, or even more often, the often precious commodity of water.

One of the most interesting of the tales related to searching for treasure concerns Captain Thomas Dickinson and his giant derrick. In 1830 the British frigate *Thetis* was sailing east with 800,000 dollars in gold and silver coins when it lost its bearings and crashed into the huge wall of stone named Cape Frio. Later, Captain Dickinson installed a derrick in the cave in which the *Thetis* sank. This derrick was half the length of an entire football field and consisted of twenty-two pieces of wood held together with dowels, iron bolts, hoops, and wrappings of four-inch rope. Dickinson then hung a diving bell from the end of the derrick like a weight on the end of a fishing pole. His men used chains and cables to lower and raise the derrick and to move it from side to side so that they could place the bell where they wanted it and then lift it out. The diving bell enabled a diver to rest while breathing fresh air. Although the bell was open at the bottom to allow a diver to enter and leave, the air inside kept the water out. After fourteen months of intense effort, most of the treasure from the *Thetis* was recovered.

Three sophisticated inventions from World War II are now used in the recovery of treasure. One is *scuba* which stands for self-contained underwater breathing apparatus. *Sonar* is used by contemporary treasure hunters to locate sunken ships. As they tow a sonar device behind a search boat, it fires electrical impulses into the water which bounce off whatever they hit and send back echoes that are picked up by a recorder. *Metal detectors* or *magnetometers* now are used by treasure hunters to find metal objects as deep as twenty feet underground.

*The readability level of this passage was computed by the Dale-Chall Readability Formula.

TALES OF SEARCHING FOR HIDDEN TREASURE

1. What was the most common device used to attempt to locate both gold and water many years ago? (L-E)

the divining rod

2. From what did Dickinson and his men hang a diving bell? (L-E)

a derrick

3. Why do you think the divining rod was not always successful in helping a person locate gold? (I-I)

there is no scientific evidence to prove that it really worked

4. Why was the diving bell necessary if a man were to be successful in finding the sunken treasure on the *Thetis*? (I-I)

a person could not breathe underwater without it

a person would die otherwise while trying to locate the sunken treasure

5. What kinds of treasure can be located by the use of metal detectors? (I-I)

gold or silver jewelry

metal ores

coins

Number of words in this selection 419

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-4

Low independent reading level approx. 5-10

High instructional reading level approx. 11-19

Instructional reading level approx. 20-37

Low instructional reading level approx. 38-42

Frustration reading level 43+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0

Instructional reading level 1

Frustration reading level 2+

ORAL READING PASSAGE

Name_____ Grade_____ Teacher_____ Date_____

THE DOG WHELK (10-12)* †

The dog whelk is a carnivorous snail that lives on the seashore along with countless other seashore creatures such as barnacles, mussels, starfish, sea urchins, and periwinkles. Marine zoologists have studied all of these sea animals extensively and as a result of their meticulous research, we now are cognizant of the characteristics which dog whelks possess.

Since the dog whelk is a carnivorous snail, its diet mainly consists of mussels or barnacles but not seaweed of any variety. The dog whelk moves quietly along, gobbling up the animals underneath it, such as the barnacle which it apparently kills or sedates with a substance called *purpurin* that it has secreted, a purple dye which drugs its victim. Then the dog whelk extends its *proboscis*, a trunk-like extension of its head which protrudes through the mouth opening, and uses its *radula*, or coiled tongue, to eat the barnacle.

Although a dog whelk has considerably more difficulty eating a mussel than a barnacle because the mussel shell is larger and tougher, it has the ability to do so. The dog whelk climbs onto the shell and bores a very neat round hole through the mussel's shell with its *radula*. After the task is accomplished, this carnivorous snail simply devours the mussel.

Carnivorous snails were not the first living thing to inhabit the seashore because plants, which are self-sufficient, appeared there earlier. While plants are self-sufficient, animals always have depended upon plants since they either eat plants themselves or eat other animals that have eaten plants.

Under the spiral shell with its siphon groove, one can observe the soft portion of the dog whelk. There is the muscular foot which supports the shell and moves it along with a series of contractions. There is the stumpy head with its odd-looking tentacles that can be pulled into the head if the dog whelk senses danger. In times of danger, a long, strong muscle, the *columnella*, which stretches back into the smallest section of the spiral, pulls the snail into its shell and closes it mostly in by shutting the *operculum* which is made of a horny material.

*The readability level of this passage was computed by the Dale-Chall Readability Formula.

†It was decided that it was too difficult to differentiate between passages at the tenth-grade reading level, eleventh-grade reading level, and twelfth-grade reading level. Therefore, one passage was written that should be fairly appropriate for all three of these levels.

THE DOG WHELK

1. What type of snail is the dog whelk? (L-E)
carnivorous
meat- or flesh-eating
2. What is the dog whelk's *radula*? (L-E)
tongue
coiled tongue
3. Why do you think it is useful for the dog whelk to sedate a barnacle before attempting to eat it? (I-I)
it then has no defenses
the barnacle's muscles then provide no resistance
4. Why do you think it is helpful for a dog whelk to climb onto a mussel before attempting to drill a hole into it? (I-I)
it would be easier when the mussel is directly under it
the radula probably has more power when the mussel is directly under it
5. Why do you think it is important for the dog whelk's foot to be muscular? (I-I)
the single foot must be very strong to support the shell and move it along
there is only one foot to hold up the shell and move it along

Number of words in this selection 454

Number of word-identification miscues _____

Word-Identification Miscues

Independent reading level 0-5
Low independent reading level approx. 6-11
High instructional reading level approx. 12-20
Instructional reading level approx. 21-36
Low instructional reading level approx. 37-41
Frustration reading level 42+

Number of comprehension errors _____

Comprehension Errors

Independent reading level 0
Instructional reading level 1
Frustration reading level 2+

Variations of the Cloze Procedure

The cloze procedure was developed in 1953 by Wilson L. Taylor ("Cloze Procedure: A New Tool for Measuring Readability," *Journalism Quarterly*, 30, Fall 1953, pages 415–433) and is based on the psychological theory of *closure* which presumes that a person wants to finish any incomplete pattern. The cloze procedure is based upon the *prediction* aspects of reading, which indicate that a reader wants to predict the unknown words he/she may encounter in a passage. The cloze procedure, therefore, makes use of both semantic (word meaning) and syntactic (sentence structure) clues to help a reader deduce the unknown words he/she may meet in reading.

The cloze procedure has a number of different variations, each of which can be valuable in improving a child's ability in both comprehension and contextual analysis. In addition, one variation of the cloze procedure can be used as a useful alternative for determining a child's independent, instructional, and frustration reading levels.

In either case, you can construct a variation of the cloze procedure from a basal reader story, supplementary reading materials, a tradebook, or a content textbook. To construct a cloze procedure, choose a passage of about 250 words at what is believed to be the child's approximate instructional reading level. Then type the first and last sentences of the passage with no deletions on a word processor, ditto master, or stencil. Every *n*th word is deleted throughout the rest of the passage unless the selected word is a proper noun or an unduly difficult word. I recommend that every tenth word be omitted at the primary-grade reading level, every eighth word at the intermediate-grade reading level, and every fifth word at the upper-intermediate-grade reading levels and above. Although many reading specialists recommend omitting every fifth word for all children, my experience has indicated that this is simply too difficult for young children, especially with the traditional cloze procedure.

When the traditional cloze procedure is used to determine a child's approximate reading levels, you must count as correct only those completed blanks that are the same as the original passage, although incorrect spelling is not marked as incorrect.

Useful Variations of the Cloze Procedure

There are a number of variations of the traditional cloze procedure that reading teachers have used effectively in improving ability in both comprehension and contextual analysis. However, any variation of the cloze procedure must be preceded by many *cloze readiness activities* if the child is to be successful with later actual cloze activities.

My teacher-trainees have used many variations of the traditional cloze procedure to improve the competency of the children whom they have tutored in both contextual analysis and in comprehension. I recommend an easy version of cloze for the primary grades, in which all the omitted words are written in random order in columns at the bottom of the sheet containing the passage.

Another simple version for use in the primary grades has each of the deletions with two or three options being placed under it. This version is similar to an inventory in contextual analysis as explained in Chapter 3 of this *Handbook*. One other fairly easy version of cloze for use in the primary grades combines graphophonic (phonic) clues along with semantic (meaning) clues. In this variation the beginning letter or the first two letters (consonant blend or consonant digraph) are placed at the beginning of the omission. One other fairly easy version has random deletions with the deleted word quite easy to deduce.

One version often used at about the third- or fourth-grade reading level combines word length clues and semantic (meaning) clues. Each omitted word is replaced by a

typewritten space as long as the omitted word. For example, here is how the word *monkey* would look if it were deleted from this kind of cloze procedure: — — — — —

NOTE: In all of the other versions of cloze, the length of each blank space should be about *fifteen typewritten spaces long*.

There are other useful variations of the cloze procedure. A number of these variations are most useful with students who are reading at about the intermediate-grade reading level or above. Some examples of these are the random omissions of nouns, verbs, adjectives, or adverbs. In each case, also, any noun, verb, adjective, or adverb that makes sense in that blank should be considered correct.

Some other contemporary variations of cloze include deleting entire sentences in a random manner, deleting more than one word at a time, deleting an entire phrase (such as a prepositional phrase), or deleting the unimportant words in a passage. You can construct a number of your own variations of the cloze procedure which are equally useful as the versions described here.

How to Score the Variations of the Cloze Procedure

As was stated earlier, the most common version of the cloze procedure is the *traditional version*, although I doubt it is the most useful one. In any case, after you have constructed the traditional cloze procedure, deleting every fifth word from the passage (with the exception of the first and last sentences), students should be encouraged to complete each blank space with the exact omitted word. The procedure is not timed.

In evaluating *only the traditional cloze procedure*, you must first count the number of blanks in the passage. This should usually be about fifty blanks. Then count the number of blanks that were completed with the exact omitted word. Then divide the total number of blanks into the number of blanks completed with the exact omitted words to obtain a percentage. For example, if a traditional cloze procedure contained fifty blanks and the student completed twenty of the blanks with the exact omitted word (even if spelled incorrectly), divide 50 into 20 to get a percentage (the student got 40 percent of the blanks correct). Then the following percentages can be used to get a rough estimate of the child's reading levels:

- 60 percent or more of the blanks completed with the exact omitted word—independent reading level
- 40 percent to 60 percent of the blanks completed with the exact omitted word—instructional reading level
- less than 40 percent of the blanks completed with the exact omitted word—frustration reading level

Remember that these percentages can be used only when every fifth word is deleted from a passage.

Other reading specialists use slightly different percentages for determining a child's approximate reading levels. Since none of the percentages have been sufficiently verified by objective research to be entirely accurate, the reading levels determined from the traditional cloze procedure should always be used only as an additional check on the reading levels determined from an IRI.

Although research has not established an exact level at which a child can be judged competent in the use of contextual analysis or comprehension by the use of any of the variations of the cloze procedure, you undoubtedly can use an 80-percent competency level as the approximate instructional reading level. For example, over a period of more than

fifteen years hundreds of my students used the 80-percent competency level as the instructional reading level in most of the variations of the cloze procedure. As a result, I have found it to be quite accurate in comparison with the instructional reading level determined both from an Individual Reading Inventory and the traditional cloze procedure.

Samples of Cloze Exercises at the Third-Grade, Fourth-Grade, and Fifth-Grade Reading Levels*

Here is a sample cloze exercise at the third-grade reading level that combines graphophonic (phonic) clues and semantic (meaning) clues; a sample cloze procedure at the fourth-grade reading level using random deletions; and a sample traditional cloze exercise at the fifth-grade level. You may duplicate any of these cloze procedures in their present form and use them in your reading improvement program with either competent or disabled readers or with learning-handicapped children. You can also use them as models in constructing your own cloze exercises. (The answers are given at the end of the chapter.)

*The ready-to-duplicate cloze procedures contained in this chapter can be used for either assessment or teaching in semantic (contextual) analysis and comprehension. They could equally well have been included in Chapter 6.

CLOZE PROCEDURE COMBINING SEMANTIC (CONTEXTUAL) ANALYSIS AND GRAPHOPHONIC (PHONIC) ANALYSIS

(Third-Grade Reading Level)

Name _____ Grade _____ Teacher _____ Date _____

Read this story about Walt Disney to yourself. The first letter or the first two letters of each omitted word have been put in the blank space as a clue. Write each entire omitted word in the space. When you are done, read the story again to be sure it makes sense.

WALT DISNEY

Almost every child today has heard the name "Disney."

However, not very many children know much about Walt Disney, a v_____ interesting man.

Walt Disney spent much of his childhood i_____ Missouri where he learned to love animals. When he w_____ a boy, he liked to draw cartoons, especially of th_____ animals he had seen. When he grew up, Walt dr_____ cartoons to earn a living for awhile.

However, he quickly b_____ interested in making his cartoons move in films. This pr_____ is called "animation," which means that artists draw cartoons, c_____ them out, photograph them, and then move a part of th_____ bodies a tiny bit and photograph them again.

Walt devoted m_____ of his life to improving the animation of cartoons f_____ films. He was the creator of the cartoon character Mickey Mouse a_____ of such famous animated films as Snow White and

Walt Disney, continued

th_____ Seven Dwarfs and Cinderella. During this time of his l_____, Walt earned and lost much money since some of h_____ films were very successful and some were not.

However, Walt i_____ just as famous for creating two very popular amusement p_____—Disneyland in California and Walt Disney World in Florida. Millions o_____ children and adults have visited these very famous parks a_____ have enjoyed them very much. Walt Disney had b_____ a heavy smoker for much of his life. He developed lung cancer i_____ 1966 at the age of sixty-five and died. However, his cartoon characters, animated films, and amusement parks still give people much happiness and fun.

CLOZE PROCEDURE USING WORD LENGTH AS A CLUE

(Fourth-Grade Reading Level)

Name _____ Grade _____ Teacher _____ Date _____

Read to yourself this story about the gray kangaroo that lives in eastern Australia. Write a word in each blank that makes sense and contains the right number of letters. When you have finished the story, read it again to be sure it is correct.

THE GRAY KANGAROO

The gray kangaroo of eastern Australia certainly is one of the most fascinating wild animals in the whole world. One of the most interesting facts about _____ kangaroos is how the babies are born. _____ baby kangaroo is called a joey and _____ born only thirty days after its father _____ mother mate. The tiny joey is less _____ one inch long and weighs much less _____ an ounce. Only the strongest babies ever _____ long enough to reach the safety and _____ of the mother's pouch. Although a joey _____ leaves the pouch for a short time _____ it is about eight months old, it _____ stay in its mother's pouch part of _____ time until it is about 300 days _____ . A joey will not be fully grown _____ it is about 18 months old.

Gray _____ are fairly large animals. The males are _____ bucks and may stand more

The Gray Kangaroo, continued

than seven _____ tall and weigh up to 120 pounds. _____ females are called does and are usually _____ four feet tall. All of them have _____-brown fur, while the tips of their _____ and the fingers of their hands are _____. They also have large dark eyes fringed with _____. They all must groom themselves regularly with _____ tongue, teeth, and claws since they get _____ ticks and fleas.

Although gray kangaroos may _____ to be as old as twenty-three, most _____ live that long because of disease, other _____, and drought. The does can have babies _____ they are about sixteen years old. If you are not able to see a gray kangaroo in Australia, you probably can see one in a zoo.

TRADITIONAL CLOZE PROCEDURE

(Fifth-Grade Reading Level)

Name _____ Grade _____ Teacher _____ Date _____

Silently read this passage about Princess Diana's childhood. Write a word in each blank that makes sense. When you have completed the passage, reread it to be sure it is correct.

PRINCESS DIANA'S CHILDHOOD

Almost everyone has read countless stories about Princess Diana of England. However, not very many _____ are familiar with the _____ story of her childhood.

_____ neither one of them _____ it, Diana and Charles _____ first met while she _____ only a baby and _____ was a teenager. Diana _____ born in 1961 at Park House, _____ of the two country _____ owned by the queen, _____ the royal family spent _____ winter and summer holidays. Park House _____ elegant, containing ten bedrooms _____ servants' quarters and garages. Diana _____ two older sisters and _____ younger brother, and she _____ particularly close to him. _____ Diana was surrounded by _____ during her childhood, she _____ felt comfortable with them _____ though she was from _____ aristocratic, not royal, family.

Diana's _____ family life very unfortunately _____ when she was only _____, after her mother chose _____ divorce her father and

Princess Diana's Childhood, continued

_____ another man. However, she _____ made the adjustment quite _____ and tried hard to _____ her younger brother who _____ not. A short time _____ Diana was sent to _____ expensive boarding school where _____ too tried hard to _____, although she had not _____ to go. Even at _____ age, she showed a _____ combination of self-confidence and _____ and learned how to _____ her own way without _____ too aggressive.

As a _____, Diana attended another exclusive _____ school. Although she never _____ or drank there, she _____ have a great weakness _____ candy. Diana was not _____ good student and had _____ difficulty with mathematics and French. _____ Diana was not highly _____ to do well in _____, she did not pass _____ of her required examinations _____ she was sixteen. It _____ about this time when Diana _____ Charles for the first _____ as an adult. Although Charles had been dating her older sister, apparently it was Diana who captured his interest.

Some Standardized Ways of Assessing (Diagnosing) Reading Disabilities

This part of the chapter briefly explains the more common and useful ways of assessing (diagnosing) reading disabilities. However, it is important at the beginning to provide the following statement about the role of standardized assessment in any reading improvement program, either for disabled readers or learning-handicapped students:

- Any standardized device is only a very tentative indicator of those qualities it is attempting to assess. It must never be thought of as an infallible measure of those qualities. A child's performance on any device can be influenced by countless number of factors, including but not limited to: his/her interest in taking the test, his/her rapport with the examiner, his/her health the day of the testing, and the personal environment of the testing setting.

- A child should never be placed into a group, classroom, or program as the result of a standardized device. The device always should be used along with teacher observation.

- Administrators should realize that teachers often are a much better source of diagnostic information than are standardized devices. I would normally place much more faith in an experienced teacher's assessment of a student's strengths and weaknesses than I would in any type of standardized device.

- Results from a standardized device should never be the sole means used to evaluate a teacher's performance.

Standardized Survey Reading or Achievement Tests

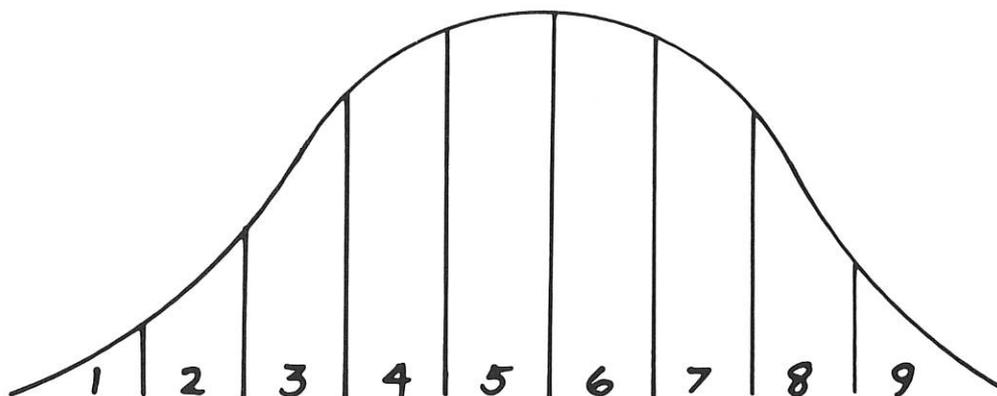
Almost all children with whom you will be working have been given a number of standardized survey reading tests during their school careers. Although such a test can be given alone, most often it is given as part of an achievement test battery that also includes tests in other curricular areas such as language usage, social studies, science, and arithmetic. Sometimes the survey reading test (most often, word meaning and comprehension) can be purchased separately from the rest of the achievement test battery.

A standardized survey reading test or the reading subtests of an achievement test battery try to evaluate a child's general or overall reading ability in the word identification skills (normally only at the primary-grade reading level), word meaning (vocabulary), sentence or paragraph comprehension, and sometimes study skills in such content areas as science and social studies. Usually students who score one year or more below grade level in the primary grades and two years or more below grade level in the intermediate grades should be given an Individual Reading Inventory or some type of diagnostic reading test to try to determine their specific reading skill strengths and weaknesses.

A standardized survey reading test is a group-administered, norm-referenced test (you can compare the results achieved by your group of children with the results achieved by a similar group of students in the standardization sample). Usually these are students of the same grade level, sex, socio-economic group, and geographic location. Norms can be reported in *grade equivalent scores*, *percentile ranks*, *stanines*, or *standard scores*.

- Although they are not valid and are not recommended by the International Reading Association, *grade equivalents* are still probably the most commonly used means to report a child's scores. Grade equivalent scores often *overestimate* a student's actual instructional reading level. The grade equivalent score is the grade level for which a raw score is the median score.

- A *percentile rank* indicates how a student compares in performance with other students of his/her age or grade.



- *Stanines* are normalized standard scores that range from a low of 1 through a high of 9, with 5 being the average performance.
- A *standard score* is a normalized score that allows you to compare a child's performance on a number of different tests. It is the only type of score that can be averaged from test to test.

Any standardized test should be reliable and valid to be useful. *Reliability* refers to the degree to which a test provides consistent results, while *validity* indicates the degree of truthfulness or accuracy with which a test measures what it is supposed to measure.

A standardized survey reading test or the reading subtests of an achievement test have these main advantages:

- They serve as a useful screening device to determine which students need additional individual testing.
- They normally are easy to administer and to score. Often this type of test takes from about 45 minutes to 1½ hours to give, and the scoring can be entirely done by computer.
- They are usually reliable and valid.
- They reflect the reading programs of most elementary schools.
- They are formulated by test experts and experts in the field of reading.
- They can be given by a virtually untrained examiner.

However, all of these tests have the following significant limitations:

- They are not free of cultural bias and often discriminate against children from minority groups or children who speak nonstandard English.
- They often are not passage dependent. The child may be able to answer the comprehension questions without reading the material.
- They use only short reading passages to evaluate reading comprehension. This is unlike the reading skills required in actual school reading.
- They have considerable difficulty in evaluating a child's ability in implicit (higher-level) comprehension, since only one answer is possible for any question.
- They may well overestimate the child's actual instructional reading level due to the guessing factor and to the difficulty of obtaining a true estimate of a child's grade equivalent at the upper and lower ends of the scale.

These limitations indicate forcefully why a child's score on a standardized survey reading test or the reading subtests of an achievement test should *always* be thought of as only a tentative indicator of his/her actual instructional reading level.

A Partial List of Tests

Here is a very brief description of a few useful standardized survey reading or achievement tests. Keep in mind that these are only a few of the better tests; this is not a comprehensive list.

California Achievement Tests; Reading (1987). This test is available in two forms and is designed for use in grades K–12. Levels 11 (grades K.6–2.2), 12 (1.6–3.2), and 13 (2.6–4.2) contain subtests on phonic analysis, vocabulary, and comprehension. Level 13 also contains a structural analysis subtest. Levels 14–16 (grades 3.7–7.2) and 17–20 (6.6–12) have vocabulary and comprehension subtests.

California Test Bureau
Del Monte Research Park
Monterey, CA 93940

Gates-MacGinitie Reading Tests (1989). This test is available in either one or two forms and is designed for use in grades K–12. The PRE Test level is available in Form K (grades K.7–1.2) and contains four subtests that evaluate elements of emergent literacy. Level R is available in Form K (grades 1.0–1.9) and contains three parts that evaluate elements of phonic analysis, sight words, and context. Level 1 is available in Form K (grades 1.4–1.9) and evaluates vocabulary and comprehension. Level 2 is available in Forms K and L (grade 2) and evaluates vocabulary and comprehension; Level 3 is available in Forms K and L (grade 3) and evaluates vocabulary and comprehension; Level 4 is available in Forms K and L (grade 4) and evaluates vocabulary and comprehension; Level 5/6 is available in Forms K and L (grades 5 and 6) and evaluates vocabulary and comprehension; Level 7/9 is available in Forms K and L (grades 7–9) and evaluates vocabulary and comprehension; and Level 10/12 is available in Forms K and L (grades 10–12) and evaluates vocabulary and comprehension.

The Riverside Publishing Company
8420 Bryn Mawr Avenue
Chicago, IL 60601

Iowa Silent Reading Tests (1973). These tests measure the ability to apply reading strategies to different types of tasks. The Reading Efficiency Index shows the relative effectiveness of reading rate and comprehension. Level 1 (grades 6–9) and Level 2 (grades 9–14) contain subtests of vocabulary, comprehension, and directed reading (work-study skills including locational skills, skimming, scanning, and reading efficiency).

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Iowa Test of Basic Skills (1986). Levels 5 (K–1.5), 6 (K.8–1.9), 7 (1.7–2.6), and 8 (2.5–3.5) measure listening, word analysis, and vocabulary. Levels 6–8 also evaluate reading comprehension. Levels 9–14 (grades 3, 4, 5, 6, 7, and 8–9) have vocabulary, comprehension, and reference strategies subtests. It also lists behavioral objectives to which the test items were written.

Riverside Publishing Company
P.O. Box 1970
Iowa City, IA 52244

Metropolitan Achievement Test: Reading (1986). This test evaluates reading ability in comprehension and is available in two forms, designed for K–12 students at different levels.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

SRA Achievement Tests: Reading (1978). Levels B (grades 1–2) and C (2–3) subtests in letters and sounds, listening comprehension, vocabulary, and reading comprehension. Level B also evaluates auditory comprehension. Levels D (grades 3–4), E (4–6), F (6–8), G (8–10), and H (9–12) evaluate vocabulary and comprehension. Two forms designed for Grades 1–12.

SRA
155 North Wacker Drive
Chicago, IL 60606

Stanford Achievement Test: Reading (1987). Includes Primary 1 (grades 1.5–2.9), Primary 2 (2.5–3.9), Primary 3 (3.5–4.9), Intermediate 1 (4.5–5.9), Intermediate 2 (5.5–7.9), and Advanced (7.0–9.9). At various levels this test evaluates word-study skills, word reading, literal and inferential comprehension, vocabulary, and listening comprehension. Two forms designed for grades 1–9.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Standardized Process-Oriented Measures of Reading Comprehension

The newest standardized testing thrust in comprehension seems to be some variation of a process-oriented measure of reading comprehension. This type of device is found in a number of state-mandated tests and in some basal reader tests.

These new types of standardized reading tests attempt to reflect contemporary research in reading comprehension. This research has discovered that reading is an active process that always involves the combination of prior knowledge, the printed material, and the child's reading strategies. Thus, reading involves combining the reader, the text, and the context of the reading material.

- *Reader elements* include such factors as prior knowledge, attitudes toward reading and the topic, ability to read the material, and knowledge of the appropriate strategies to use to improve comprehension.
- *Text elements* include such factors as the genre or type of material, how the author has structured the information, the difficulty of the material, and the organization of the text.
- *Context* includes such elements as the reader's purpose for reading, the setting where the reading takes place, and how the reader has to demonstrate his/her comprehension of the material.

The standardized process-oriented measures of reading comprehension normally employ an entire passage for the child to read. This passage often contains the actual pictures, tables, maps, or diagrams found in the reading material, which can be either narrative or expository material. This passage may be copied from an appropriate basal reader or content textbook at an appropriate reading level. The rationale behind this concept is that a longer passage is more like the actual reading a child does at school and at home.

Often prior to reading the passage the child completes a *topic familiarity (prior knowledge) section* that contains a brief summary of the selection followed by a number of questions of some type to assess the child's prior knowledge. The test next usually contains the complete narrative or expository passage. As stated earlier, often the entire passage is reprinted in the test booklet from the original basal reader story or content textbook.

The test may contain a number of *constructing meaning* questions. These questions differ from those found on the typical survey reading or achievement test in that they may have more than one possible correct answer. Both textually explicit (literal) and textually implicit (interpretive or critical) questions are used as well as application questions of some type.

The child's understanding and use of reading strategies also are usually contained in this type of standardized test. Such strategies may take the form of text lookbacks (looking back in the passage to locate the correct answer), rereading, reading only the first line in each paragraph, skimming, scanning, using contextual analysis, or using a dictionary.

Very briefly, here are a few advantages of process-oriented measures of comprehension:

- This type of test uses an entire narrative or expository passage with all of its inherent features, instead of using a short passage to evaluate reading comprehension. This more nearly duplicates actual reading situations.
- They teach the child that it is possible for an objective question to have more than one correct answer.
- They stress the effective use of the various word identification skills in the context of sentences and paragraphs. This is consistent with the whole language philosophy.
- They emphasize the importance of activating (using) prior knowledge before reading material. This greatly enhances comprehension ability.
- They demonstrate to the child that there are different purposes for reading different types of material.

Here are a few of the main limitations of the use of this type of test:

- It can be frustrating for the child to answer the comprehension questions when there is more than one correct answer if he/she has not had extensive practice with this concept prior to actually taking the test. Otherwise, the child often just marks the first correct answer that he/she sees and does not even read the remaining alternatives.
- Since each child's prior knowledge is different, it is difficult to score the topic familiarity (prior knowledge) section objectively.
- It is fairly difficult to evaluate a child's understanding and use of the appropriate reading strategies in this type of test.
- Teachers may feel threatened when this type of test is used to evaluate the performance of their children or—even worse—their own performance. Many of the teachers in Illinois I have spoken to who give the test dislike it.

In summary, a process-oriented measure of comprehension may have some value if it

is used to help teachers emphasize the most important reading skills and strategies. It may be harmful if it is considered infallible and used to evaluate a teacher's performance.

Criterion-Referenced Tests

Although *criterion-referenced tests* may not be as widely used in reading improvement programs as they were in the past, it may be helpful for you to have some knowledge of them. They also are called *mastery tests* and deal with one or more of the reading subskills and specify the point at which the child may have mastered that subskill. They are not norm-referenced, but they may be used to evaluate a child's strengths and weaknesses in all of the word identification, comprehension, and study skills. The major purpose of their use is to help the teacher individualize reading instruction more effectively.

Here are the major advantages of these tests:

- They may help the reading teacher be sure that a child has truly mastered important reading skills.
- The child need not learn nor practice a reading skill that he/she already knows.

Here are the major limitations of these tests:

- They fragment the reading process. This is not in keeping with the whole language philosophy.
- The 80-percent criterion level is an arbitrary and often inaccurate cutoff point.
- It is difficult for such a test to evaluate ability in higher-level (implicit) comprehension skills.

Standardized Diagnostic Reading Tests

A *standardized diagnostic reading test* is an individually-administered or group-administered test that attempts to determine a child's specific strengths and weaknesses in the various word identification and comprehension skills. It often also tries to ascertain a child's approximate independent, instructional, and frustration reading levels. Such a test is usually used with a child who has not performed well on a standardized survey reading or achievement test. Such a student normally is reading one or more years below grade level in the primary grades and two or more years below grade level in the intermediate grades.

A diagnostic reading test can evaluate word-identification ability in such subskills as knowledge of letter names; sight-word knowledge; understanding of various phonic elements such as consonants, consonant blends, vowels, word families, and auditory blending; understanding of various structural elements such as prefixes, suffixes, base or root words, and syllabication; and contextual analysis. In addition, a diagnostic reading test can also assess competency in vocabulary knowledge, explicit and implicit comprehension, and rate of reading.

Since diagnostic reading tests have been prepared by test experts, they typically are both reliable and valid. They also have been field tested and revised as a result of this testing. Most of them contain tables of norms such as percentile ranks and stanines with which to compare your students' results.

If you give a disabled reader or a learning-handicapped child an Individual Reading Inventory, you normally would *not* give him/her an individual diagnostic reading test, although you might wish to administer a group diagnostic reading test. An individual diagnostic reading test and an IRI evaluate about the same reading skills in approximately

the same manner. You normally choose to give a diagnostic reading test when you want to give a child a valid and reliable device.

Although most IRIs are not valid and reliable since they have not been constructed in the same manner as a standardized test, they still can be useful in the determination of a child's reading strengths and weaknesses.

Nevertheless, I prefer to give a child an IRI instead of a diagnostic reading test, but acknowledge that other reading teachers prefer to give an individual or group diagnostic reading test.

Normally you can give a group diagnostic reading test to a mildly or perhaps moderately disabled reader to whom you do not wish to take the time to give an individual device. Since a group diagnostic reading test can be given to a group of students at the same time, it does not require the administration time of either an individual diagnostic reading test or an IRI. However, you can also give a group diagnostic reading test on an individual basis if the student is only mildly disabled.

Most individual and group diagnostic reading tests evaluate a student's reading competencies and weaknesses quite effectively through about the eighth-grade instructional reading level. Therefore, they can be used with secondary school students who are functioning at the eighth-grade level or below.

A standardized individually administered or group-administered diagnostic reading test has these main advantages:

- Since it is standardized, it is more valid and reliable than the typical Individual Reading Inventory.
- It effectively ascertains a student's specific reading skill strengths and weaknesses and establishes his/her correct instructional reading level. Therefore, a child's corrective or remedial reading program can be appropriately prescribed.

However, each of these tests has the following limitations of which you should be aware:

- The individually administered diagnostic reading test normally takes considerable time to learn how to give, to actually administer, and to score. However, a group diagnostic reading test usually does not contain this limitation.
- They are not free of cultural bias and often discriminate against children from minority groups or children who speak a nonstandard English dialect.
- The group diagnostic reading tests are not particularly valid in assessing a student's ability in phonic analysis. For example, most group tests in phonic analysis require sound-symbol association, while reading requires symbol-sound association, a much more difficult task since there are so many different sounds to choose from, especially in the case of vowel phonemes.
- Nonsense words (pseudowords) often are used to evaluate competency in word identification, because the words on such a test must be unknown to the student if he/she is to demonstrate ability to apply phonic analysis or structural analysis effectively. Although nonsense words can be useful in testing word-identification skills, a number of students do not respond well to a subtest containing many such words since they have no association (referent) for the child.

A Partial List of Tests

Here is a brief description of a few useful standardized individual or group diagnostic reading tests. They should be thought of only as representative of some of the tests in this category:

Diagnostic Reading Scales (1981). This is an individual norm-referenced and criterion-referenced test. It contains three word lists (40 to 50 words each); two sets of eleven graded passages (preprimer–seventh reader), with seven or eight comprehension questions, each mainly at the literal (explicit) level; and twenty supplementary decoding tests (mainly phonic analysis). The word-recognition criterion for oral reading is norm-referenced, while the comprehension criterion for oral and silent reading and listening comprehension is criterion-referenced. The instructional level is based on oral reading, while the independent level is based on silent reading. It is designed for grades 1–7.

California Test Bureau
Del Monte Research Park
Monterey, CA 93940

Durrell Analysis of Reading Difficulty (1980). This individual test contains five primary- and three intermediate-level paragraphs each followed by mainly literal (explicit) questions. The instructional level (oral reading) is primarily based on reading time with comprehension given some consideration. There are five different primary and intermediate-level paragraphs for silent reading. The independent level for silent reading is based upon reading time and retelling of the material. There are six passages available for assessing listening comprehension. The criterion for listening comprehension is no more than two incorrect answers out of seven or eight for about a 75-percent level. Word recognition/word analysis consists of four fifty-word lists. The words are flashed first and then unknown words are shown untimed. The listening/vocabulary test consists of five fifteen-word lists, and the student indicates in which of three categories the word belongs. The sounds-in-isolation test measures symbol-sound associations. The spelling test consists of two twenty-word lists and fifteen words dictated on the phonic-spelling-of-words test. The test also includes tests devoted to visual memory for words and identifying sounds in words. In addition, the test evaluates prereading phonic abilities.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Gates-McKillop-Horowitz Reading Diagnostic Tests (1981). This battery contains fifteen individually-administered tests. The oral reading test has seven paragraphs. The score is based *solely* on the number of word recognition errors. The reading sentences test contains four sentences that are read orally, and the score is based on word recognition. The flash and untimed tests are based on the same four ten-word lists. The word attack portion of the test assesses syllabication, recognition, and blending of common word parts; decoding nonsense words (pseudowords), making symbol-sound associations for single consonants, and naming upper- and lower-case letters. The recognition of visual form of sounds evaluates sound-symbol association of single vowels. The auditory tests evaluate blending and discrimination. Spelling and writing skills are evaluated by a written expression test. The battery is designed for students functioning at grades 1–6 reading levels.

Teachers College Press
1234 Amsterdam Avenue
New York, NY 10027

Stanford Diagnostic Reading Test (1984). This test battery consists of four levels: Red (grades 1.5–4.5), Green (3.5–6.5), Brown (5.5–8.5), and Blue (7.5–13.0). The skill areas and grades at which each is measured are: auditory discrimination, grades 1.5–6.5; phonic

analysis, grades 1.5–8.5; auditory vocabulary (meanings of spoken words), grades 1.5–8.5; literal (explicit) and interpretive (implicit) reading comprehension, all grades; structural analysis, grades 3.5–13.0; reading rate, grades 5.5–13.0; word parts (knowledge of affixes and base words), vocabulary, and skimming and scanning, grades 7.5–13. Each level is available in two forms, and the four levels cover grades 1–13.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Woodcock Reading Mastery Test, Revised (1987). This is an individual test. Form G has six subtests: visual-auditory learning; letter identification, word-identification; word attack (decoding nonsense words); and word comprehension (modified cloze test of sentence comprehension). Form H contains only the last four of the previously mentioned subtests. The test is available in two forms.

American Guidance Service
Publishers Building
Circle Pines, MN 55014

Visual and Auditory Perception Tests

As stated in detail in Chapter 1, a learning-handicapped child may well have difficulty either with visual perception or auditory perception ability. Therefore, it may be helpful for a child—especially in the primary grades—to be given a visual perception or auditory perception test if he/she evidences a weakness in either or both of these channels.

A Partial List of Visual Perception Tests

Here is a brief description of some of the most common visual perception tests:

Bender Visual-Motor Gestalt Test (1963). This individual test measures perceptual-motor integration whereby the child copies nine abstract designs which remain in view. The child's reproductions are scored on the basis of departures from the models.

American Guidance Service
Publishers Building
Circle Pines, MN 55014

or

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Frostig Developmental Test of Visual Perception (1966). This test consists of five subtests: eye-motor coordination (drawing continuous lines between increasingly narrow boundaries); figure-ground (picking out and outlining geometric forms of differing sizes, shadings, textures, and positions); constancy of shape (discriminating among geometric forms of differing sizes, shadings, textures, and positions); position in space (distinguishing between figures in the same or reversed or rotated positions); and spatial relations (joining dots to reproduce forms and patterns shown). It is designed for ages 7 and 8.

Consulting Psychologists Press
577 College Avenue
Palo Alto, CA 94306

Benton Revised Visual Retention Test (1974). This individual test is designed to assess visual perception, visual memory, and visual-motor integration. Ten designs, one at a time, are shown briefly, and the child tries to draw each one. It also gives IQ equivalent scores.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Developmental Test of Visual-Motor Integration (1989). This is an individual test that measures ability to integrate visual perception and motor behavior. The child copies up to twenty-four geometric forms of increasing difficulty. It is designed for ages 3 to 18.

Modern Curriculum Press
13900 Prospect Road
Cleveland, OH 44136

Psycho-educational Inventory of Basic Learning Abilities (1968). This evaluates fifty-three basic learning abilities in six areas: gross motor development, sensory-motor integration, perceptual-motor skills, language development, conceptual skills, and social skills. It is designed for children aged 5–12.

Fearon/Janus/Quercus
500 Harbor Boulevard
Belmont, CA 94002

Auditory Memory Span Test (1975). This individual test requires the ability to retain and recall sets of single-syllable words spoken by the examiner. The sets range from two to six words. The test is available in two forms.

Language Research Associates
P.O. Drawer 2085
Palm Springs, CA 92262

or

Stoelting Company
1350 South Kostner Avenue
Chicago, IL 60623

Lindamood Auditory Conceptualization Test (1971). This is an individual test consisting of four parts: precheck (understanding needed to take the test); identifying the number of sounds heard and determining whether they are the same or different; indicating the sequence and determining the number of sounds in a syllable; and changes in the sound pattern when sounds are added, deleted, or changed. The understanding of the task is indicated by manipulating colored blocks. It is available for preschool through adult.

DLM Teaching Resources
One DLM Park
Allen, TX 75002

Purdue Perceptual-Motor Survey (1966). This is an individual test with a series of eleven tasks measuring balance and posture, body image, perceptual-motor skills, ocular control, and form perception. It is designed for ages 6 to 10.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

A Partial List of Auditory Discrimination Tests

Here is a brief description of two common auditory discrimination tests:

Goldman-Fristoe-Woodcock Test of Auditory Discrimination (1976). This test measures speech sound discrimination and is designed for ages four and up.

American Guidance Service
Publishers Building
Circle Pines, MN 55014

Wepman Auditory Discrimination Test, Revised (1987). This test contains forty pairs of words the child is to discriminate between when pronounced by the examiner. The teacher asks the child whether each word pair is the same or different. It cannot be used with children or teachers who do not speak the standard dialect.

Language Research Associates
P.O. Drawer 2085
Palm Springs, CA 92262

Some Individual and Group Intelligence Tests and Their Place in a Reading Improvement Program

Intelligence tests are used in any reading improvement program both with those children who are learning handicapped and with those who are not. An individual intelligence test is more valid than a group intelligence test since any group intelligence test tends to measure some degree of reading ability as well as intellectual ability. Thus, disabled readers of any type do not score well on the group intelligence test, and teachers sometimes believe that these readers do not have the intellectual potential which they actually possess.

However, even an individual intelligence test is only an estimate of a child's actual intellectual ability, since the results can be influenced by so many factors. The intelligence test results can be influenced by test anxiety, the child's physical health that day, the child's lack of prior knowledge (especially for minority group children), and the rapport between the examiner and the child, for example.

Most individual intelligence tests must be given by a school psychologist, a psychiatrist, or perhaps a guidance counselor. Most often, the individual intelligence test is given by the school psychologist in the district. Each student who is classified as "learning handicapped" is given a test of this type. You can learn to give such a test yourself if you enroll in a post-graduate-level course on testing.

Many reading specialists and psychologists think the *Wechsler Intelligence Scale for Children, Revised (WISC-R)* (Psychological Corporation, 555 Academic Court, San Antonio,

Texas 78204) is the most valid individual intelligence test for use in any reading improvement program with average and learning-handicapped students. It is designed for children from ages 5 to 15, while a parallel individual intelligence test—the *Wechsler Adult Intelligence Scale, Revised (WAIS-R)*—is designed for students older than 15. It is available from the same publisher.

The WISC-R yields a *verbal intelligence quotient*, a *performance intelligence quotient*, and a *full-scale intelligence quotient*. Since the verbal score is usually considered the most highly related to reading success, a number of disabled readers score somewhat more highly in the performance area. On the whole, disabled readers do not score well in the arithmetic, information, digit span, and coding subtests. They often do better on the subtests for comprehension, picture completion, block design, picture arrangement, and object assembly. Their performance often is mixed on the similarities and vocabulary subtests.

On the WISC-R (1974), the six subtests on the Verbal Scale are the following:

- *Information*: This subtest consists of thirty questions to evaluate a child's general range of knowledge and background. It may be influenced to some extent by cultural background.
- *Comprehension*: This subtest contains seventeen questions believed to be a test of "common sense" that evaluates a child's ability to use past information and to evaluate past experiences.
- *Arithmetic*: This subtest consists of eighteen questions that evaluate the child's ability to solve arithmetical problems. All questions must be answered orally.
- *Similarities*: This subtest of seventeen questions measures the child's ability to use logical reasoning processes to notice similarities.
- *Vocabulary*: This subtest contains thirty-two words that measure the child's knowledge of the meaning of words. This subtest is often one of the most effective predictors of reading achievement.
- *Digit Span*: This is a measure of a child's ability to remember a series of digits forward and backward.

In the WISC-R the Performance Scale consists of the following six subtests:

- *Picture Completion*: This subtest consists of a series of twenty-one pictures, each of which contains a missing part. The child must indicate the missing part either verbally or by pointing to the answer.
- *Picture Arrangement*: This subtest consists of twelve different series of pictures. Each series is placed in front of the child in mixed order. Then the child must arrange the pictures in order.
- *Block Design*: The child is given blocks with different designs on them. The child must arrange the blocks so that they match a pictured design shown by the examiner.
- *Object Assembly*: This subtest consists of four form boards the child is required to complete. Each is timed.
- *Coding (Digit Symbol)*: The child is required to make associations between various symbols. This subtest provides some information about the child's speed and accuracy of learning.
- *Mazes*: This subtest is not used often unless one of the other subtests is spoiled in the administration of the test. It consists of a series of eight pictured mazes the children have to find their way through.

In the past the *Stanford-Binet Intelligence Scale, Revised* (1986) was more commonly

used in reading improvement programs than it is today. It contains fifteen subtests in four areas: verbal reasoning (vocabulary, comprehension, absurdities); abstract/visual reasoning (pattern analysis, matrices, paper folding and cutting, copying); quantitative comprehension (quantitative, number series, equation building); and STM (memory for sentences, digits, and objects). This test yields scores for each subject, for each of the four general areas, and a complete score. The scores correspond to IQs that are now called "Standard Age Scores." It is designed for ages 2 to adult.

Riverside Publishing Company
8420 Bryn Mawr Avenue
Chicago, IL 60631

The *Peabody Picture Vocabulary Test, Revised (PPVT-R)* is an individual intelligence test that is sometimes used in a reading improvement program. It is not normally given to a learning-handicapped child in the screening process in place of another individual intelligence test. However, this test can be given by a reading teacher. It consists of a number of pictures that are shown to the child. The child points to the picture that best illustrates the word spoken by the examiner. It is available in two forms and is normally given to children from ages 2½ to 4.

American Guidance Service
Publishers Building
Circle Pines, MN 55014

Other Tests

Here is a brief description of a few other useful individual intelligence tests:

Goodenough-Harris Drawing Test (1963). This is a nonverbal test of mental ability. The child's drawings of human figures are compared to twelve ranked drawings and scored for presence of up to seventy-three characteristics. There are separate norms for boys and girls. It is used with children ages 3 to 15.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Kuhlman-Anderson Test (1982). This evaluates academic potential and consists of eight subtests, four verbal and four nonverbal in levels K (kindergarten), A (grade 1), B (2), CD (3-4), D (4-5), EF (5-7), G (7-9), H (9-12)

Scholastic Testing Service
450 Meyer Road
P.O. Box 1056
Bensenville, IL 60606

Otis-Lennon School Ability Test (1987). This evaluates abstract thinking and reasoning ability in levels Primary 1 (grade 1), Primary II (2-3), Elementary (4-5), Intermediate (6-8), and Advanced (9-12). There are two forms.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Slosson Intelligence Test (1981). This is an individual brief measure of intelligence. Many of the items are similar to those on the Stanford-Binet. It is designed for ages 2–18.

Stoelting Publishing Company
1350 S. Kostner Avenue
Chicago, IL 60623

Several Unique Tests for Assessing Abilities of Learning-Handicapped Children

The following tests may be useful in assessing the abilities of learning-handicapped children. Many of the tests mentioned earlier in this chapter and in Chapter 1 are also useful with this kind of child.

Houston Test for Language Development (1978). This test evaluates vocabulary, comprehension, word attack, and listening as well as nonverbal communication. It has two forms and is designed for infancy through 6 years of age.

Stoelting Publishing Company
1350 S. Kostner Avenue
Chicago, IL 60623

Harris Tests of Lateral Dominance (1958). This is an individual test to evaluate knowledge of left and right; hand preferences; simultaneous writing with both hands; speed and coordination in writing, tapping, and dealing cards; monocular and binocular tests of eye dominance; and foot dominance.

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

Diagnostic Test of Arithmetic Strategies (1984). This test evaluates ability to perform addition, subtraction, multiplication, and division. The analysis of performance allows for identification of faulty computational strategies and probable strengths. It is designed for grades K through 6.

Pro-Ed
5341 Industrial Oaks Boulevard
Austin, TX 78735

Illinois Test of Psycholinguistic Abilities, Revised (ITPA-R) (1969). This individual test evaluates abilities in three dimensions: channels of communication, psycholinguistic processes, and levels of organization. It contains twelve subtests: auditory reception, visual reception, auditory association, verbal expression, manual expression, grammatic closure, visual closure, and sound blending. It is designed for ages 2–10.

Slosson Educational Publications
P.O. Box 280
East Aurora, NY 14052

Test for Auditory Comprehension of Language, Revised (1985). This is an individual test of listening comprehension covering word classes and relations, morphemes, and elaborated sentence constructions. It is designed for ages 3–7.

DLM Teaching Resources
One DLM Park
Allen, TX 75002

Test of Language Development-2 (1988). This is an individual test. The primary edition (ages 4–8) has seven subtests that measure various components of receptive and expressive language (word meaning and use, grammar, articulation, auditory discrimination). The intermediate edition (ages 8–12) has six subtests that measure word meaning and use, as well as three aspects of syntactic and semantic knowledge.

Pro-Ed
5341 Industrial Oaks Boulevard
Austin, TX 78735

Kerby Learning Modality Test (1980). This individual brief screening test is designed to measure visual, auditory, and motor activity strengths and weaknesses. It has eight subtests: visual and auditory discrimination, visual and auditory closure, visual and auditory memory, and visual and auditory motor coordination.

Western Psychological Service
Box 775
Beverly Hills, CA 90213

Learning Style Identification Scale (1981). This test identifies five learning styles based on the child's internal sources of information (feelings, beliefs, attitudes) and external sources of information (other people, events, social institutions). It is designed for grades 1–8.

Educators Publishing Service
75 Moulten Street
Cambridge, MA 02238

Halstead-Reitan Neuropsychological Test Battery (1979). This individual test consists of three batteries: *Reitan-Indiana Neuropsychological Test Battery for Children* (ages 5 to 8), thirteen tests assessing a broad range of neurological functions; *Halstead Neuropsychological Test Battery for Children* (ages 9 to 14), eleven tests; *Halstead Neurological Test Battery for Adults* (ages 15 and up).

Neuropsychological Laboratory
The University of Arizona
Tucson, AZ 85721

Luria-Nebraska Neuropsychological Battery (1980). This individual test assesses a broad range of neuropsychological functions. It consists of 269 discrete, scored items in fourteen scales: motor, rhythm, tactile, visual, receptive and expressive language, writing, reading, arithmetic, memory, intellectual, pathognomonic, and left and right hemisphere. It requires a trained examiner and is available in two forms. It is designed for ages 15 and up.

Western Psychological Service
Box 775
Beverly Hills, CA 90213

Luria-Nebraska Neuropsychological Battery: Children's Revision (1987). This individual test assesses a broad range of neuropsychological functions similar to those

listed in the preceding test. It includes screening and diagnosing general and specific cognitive deficits. It is not useful with children who have low verbal ability. It requires a trained examiner and is designed for ages 5 through 12.

Western Psychological Service
Box 775
Beverly Hills, CA 90213

Neurological Dysfunctions of Children (1979). This individual screening device is for deciding whether to refer a child for a neurological examination. It is a series of eighteen yes-no items. The first sixteen items require the child to perform simple tasks such as walking along a straight line, touching a finger to his/her nose, and following a moving object with his/her eyes. It is designed for ages 3 through 10.

American Guidance Service
Publishers Building
Circle Pines, MN 55014

Quick Neurological Screening Test (1978). This individual brief screening test assesses fifteen areas of neurological integration. It samples motor development, control of large and small muscles, motor planning and sequencing, sense of rate and rhythm, spatial organization, visual and auditory perception, balance and cerebellar-vestibular function, and attention. It is designed for ages 5 through adult.

Slosson Educational Publications
P.O. Box 280
East Aurora, NY 14052

or

Psychological Corporation
555 Academic Court
San Antonio, TX 78204

ANSWERS TO "WALT DISNEY"

very	cut	his
in	their	is
was	much	parks
the	for	of
drew	and	and
became	the	been
process	life	in

Note: In this variation of the cloze procedure, every tenth word was omitted. However, there is a slight variation from this pattern of deletions due to the difficulty of completing a word in that position.

ANSWERS TO "THE GRAY KANGAROO"

gray	will	tails
The	the	black
is	old	eyelashes
and	until	their
than	kangaroos	both
than	called	live
live	feet	do not
food	The	animals
first	about	until
when	grayish	

Note: Every eighth word was omitted from this passage except when the deletion would have caused undue difficulty.

ANSWERS TO "PRINCESS DIANA'S CHILDHOOD"

people	had	well	boarding
accurate	one	help	smoked
Although	was	did	did
remembers	Because	later	for
probably	royalty	an	a
was	always	she	great
he	even	adjust	Since
was	an	wanted	motivated
one	stable	this	school
estates	ended	unique	all
where	six	shyness	when
both	to	get	was
[was] is	marry	appearing	met
and	apparently	teenager	time

Note: Every fifth word was deleted from this traditional cloze procedure unless it was a proper noun. If you wish to use the formula contained earlier in this section, only the exact omitted word can be scored as correct. However, if you do not wish to use this formula, a synonym of the omitted word can be counted as correct.

Ready-to-Use Materials for Diagnosing Disabilities in the Word-Identification Techniques

Do you believe that most disabled readers and learning handicapped students in the primary and lower intermediate grades are competent in the various word-identification techniques? If you answered "no" to this question, you are absolutely correct. Disabled readers at this level typically have great difficulty with sight-word recognition or phonic (graphophonic) analysis. On the other hand, both disabled readers and learning handicapped students at the intermediate-grade level seem to have the most difficulty with comprehension, especially higher-type comprehension.

What Constitutes Letter-Name Knowledge? _____

Letter-name knowledge has been found by research to be very predictive of primary-grade reading achievement. Although a child probably could learn to read without knowledge of the letter names, it is essential for all children to learn the letter names fairly near the beginning of reading instruction.

Letter-name knowledge consists of two separate elements, *letter recognition* and *letter identification*. The latter is the more difficult of the two since it's usually easier for a child to select a letter from several options than it is for him/her to name that same letter. Since it is easier, letter recognition is sometimes taught before letter identification. In tutoring kindergarten children who have difficulty with emergent literacy, my teacher-trainees often stress letter matching first, then letter recognition, and finally letter identification. However, letter identification normally is the final goal.

Research has not found an order for teaching the letter names. My teacher-trainees normally teach the letters in the child's own first name first. Although many children enter kindergarten printing their name in all capital letters, we try to teach it the proper way: Betsy. After the child has learned to recognize and identify the letters in his/her first

name, we often teach the more useful letters next. You can choose to teach the easier letters instead.

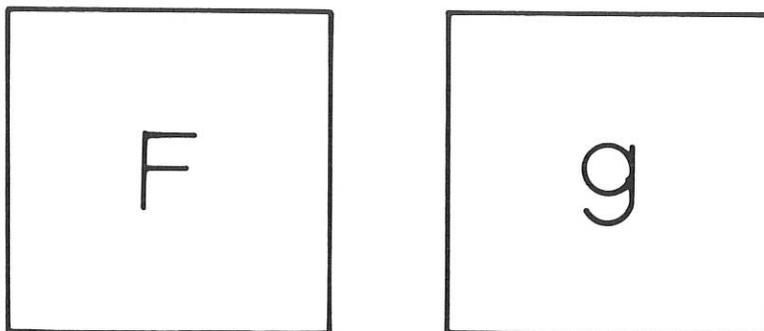
It is important for children to learn the difference between a *letter* and a *word*; a number of entering kindergarten children are not aware of the difference. It is also important for the child to learn to use the proper term. For example, the letter *w* can be called either a *capital letter* or an *upper-case letter*. The terms *big* and *little* should not be used because the letter *h* might well be thought of as "big" by a child.

At the emergent literacy stage, it is important to determine which capital and lower-case letter names a child knows. We normally do this at the beginning of kindergarten tutoring with the children who are recommended for special help by their teachers. After we have made the assessment (see the next section for details), we attempt to teach the child the letter names he/she needs to know. This is often a very difficult task for the children whom we work with since a number of these children later will be classified as learning handicapped. It can take as long as ten half-hour tutoring sessions for the child to learn up to three letter names. (All of the strategies we use to teach the letter names are found in Chapter 5 of this *Handbook*.) The various tracing strategies normally have been the most effective in teaching letter names.

Assessing Letter-Name Knowledge in Isolation

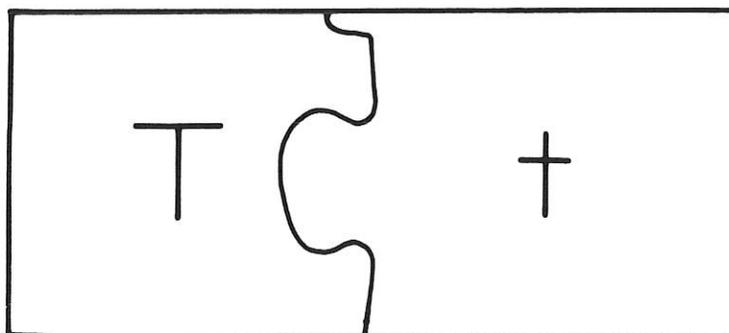
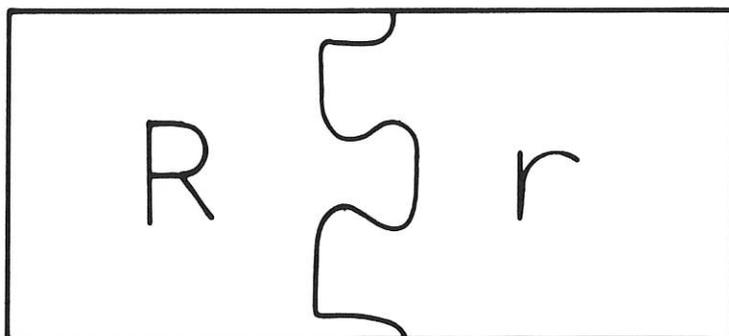
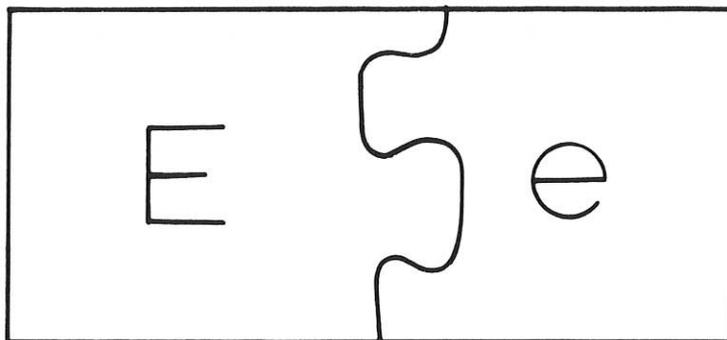
Letter-name knowledge can be assessed both in isolation and in context. Although the whole-language philosophy prefers that letter-name knowledge be assessed and taught in word and sentence context, the letter names must be taught and practiced in isolation some of the time, especially with children who have a very difficult time with them and with learning handicapped children.

When possible, letter-name knowledge is best evaluated in isolation by using *individual letter cards*. Simply print each capital and lower-case letter name on a separate small card (about 2 or 3 inches square) with a marking pen.



Then present the capital and lower-case letter names in random order and have the child identify each one of them. If you wish to stress the lower-case letter names first, do not assess the child's ability in the capital letter names until later.

We usually use some type of word puzzle to see if a child can match each capital letter name to its lower-case counterpart. To construct a series of puzzles, cut oaktag or posterboard into pieces about 5 or 6 inches long and 2 or 3 inches wide. Then print each capital letter and its matching lower-case letter on the piece of oaktag with a marking pen, and cut each puzzle apart using different types of cut. Here are some examples.



Place all of the puzzle parts into a large brown envelope. Then have the child try to put each puzzle together by matching each capital letter with its lower-case counterpart. Have the child pronounce each capital and lower-case letter name as the puzzle is assembled and state whether it is a capital or lower-case letter.

Although the preceding activities are valuable in stressing letter identification, each activity must be done individually and they are very time-consuming for a teacher to do. Therefore, you may want to assess a child's ability in letter recognition instead, although it probably is not quite as valid. If this seems more feasible, an assessment sheet for this purpose can be used.

Assessment Sheets for Evaluating Letter-Name Recognition

Here are assessment sheets you can use to help determine a child's ability in letter recognition. You can duplicate and use the sheets in their present form or modify them in any way you wish.

TEACHER'S COPY

ASSESSING LETTER RECOGNITION IN ISOLATION

(Emergent Literacy Level)

Upper-Case Letter Recognition in Isolation

1. Put your finger on the line that begins with the apple.
In that line put an X on the capital E.

F E L R D

2. Put your finger on the line that begins with the flower.
In that line put an X on the capital M.

N A H M W

3. Put your finger on the line that begins with the spoon.
In that line put an X on the capital A.

A K P V Y

4. Put your finger on the line that begins with the tree.
In that line put an X on the capital B.

R B D P Q

5. Put your finger on the line that begins with the house.
In that line put an X on the capital C.

C E S G O

6. Put your finger on the line that begins with the car.
In that line put an X on the capital S.

G O C S Z

7. Put your finger on the line that begins with the man.
In that line put an X on the capital I.

I J T E H

8. Put your finger on the line that begins with the cat.
In that line put an X on the capital K.

Y K R P Z

9. Put your finger on the line that begins with the ball.
In that line put an X on the capital D.

G S R P D

10. Put your finger on the line that begins with the fork.
In that line put an X on the capital O.

C O Q D U

CHILD'S COPY

ASSESSING LETTER RECOGNITION IN ISOLATION

Name _____ Date _____

UPPER-CASE LETTER RECOGNITION IN ISOLATION



F E L R D



N A H M W



A K P V Y



R B D P Q



C E S G O



G O C S Z



I J T E H



Y K R P Z



G S R P D



G O Q D U

Lower-Case Letter Recognition in Isolation

1. Put your finger on the line that begins with the woman.
In that line put an X on the lower-case c.

s i o c e

2. Put your finger on the line that begins with the knife.
In that line put an X on the lower-case t.

t l f k z

3. Put your finger on the line that begins with the dog.
In that line put an X on the lower-case m.

h m n w c

4. Put your finger on the line that begins with the kite.
In that line put an X on the lower-case w.

v m w x y

5. Put your finger on the line that begins with the sun.
In that line put an X on the lower-case b.

b h d a g

6. Put your finger on the line that begins with the umbrella.
In that line put an X on the lower-case g.

q p g y j

7. Put your finger on the line that begins with the snowman.
In that line put an X on the lower-case k.

k y l i f

8. Put your finger on the line that begins with the tree.
In that line put an X on the lower-case r.

r t v e f

9. Put your finger on the line that begins with the snake.
In that line put an X on the lower-case i.

l j i n h

10. Put your finger on the line that begins with the fish.
In that line put an X on the lower-case p.

q p b d a

CHILD'S COPY

ASSESSING LETTER RECOGNITION IN ISOLATION

Name _____ Date _____

LOWER-CASE LETTER RECOGNITION IN ISOLATION



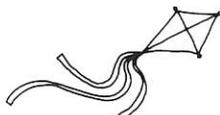
s i o c e



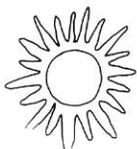
t l f k z



h m n w c



v m w x y



b h d a g



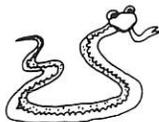
q p g y j



k y l i f



r t v e f



l j i n h



q p b d a

Assessing Letter-Name Knowledge in Context

As stated earlier, letter-name knowledge can be assessed and taught in context as well as in isolation. According to the proponents of the whole language philosophy, letter-name knowledge is best assessed and presented in the context of words and sentences.

Proponents of whole language correctly believe that letter-name knowledge is most meaningful to children when letter names are found in their own dictated or written language-experience stories, in predictable books, or in easy-to-read tradebooks. For example, the letter *f* undoubtedly has more meaning to a child when he/she finds it in the words in his/her own language-experience story or locates all of the words with a *f* in them from a predictable book that has just been read and enjoyed. (Chapter 5 presents a number of meaningful ways in which letter-name knowledge can be presented and reinforced in context.)

Assessment Sheet for Recognizing Upper-Case and Lower-Case Letter Names in Context

Here is a ready-to-duplicate sheet to help assess a child's ability to recognize the upper-case and lower-case letter names in context. You can duplicate and use this activity sheet in its present form or modify it in any way you wish.

TEACHER'S COPY
ASSESSING LETTER RECOGNITION IN CONTEXT
(Emergent Literacy Level)

1. Put your finger on the line that begins with the giraffe.
Circle all of the capital and lower-case g's that you can find in the sentence on that line.

Go get a glass of milk for me.

2. Put your finger on the line that begins with the mouse.
Circle all of the capital and lower-case a's that you can find in the sentence on that line.

Ann and Amy are nice girls.

3. Put your finger on the line that begins with the star.
Circle all of the capital and lower-case j's that you can find in the sentence on that line.

Joe and Jack can jump just fine.

4. Put your finger on the line that begins with the book.
Circle all of the capital and lower-case r's that you can find in the sentence on that line.

I hope Ray runs right home.

5. Put your finger on the line that begins with the bird.
Circle all of the capital and lower-case m's that you can find in the sentence on that line.

My mother makes nice meals.

6. Put your finger on the line that begins with the glass.
Circle all of the capital and lower-case b's that you can find in the sentence on that line.

That boy has a big black dog named Buddy.

7. Put your finger on the line that begins with the pig.
Circle all of the capital and lower-case p's that you can find in the sentence on that line.

Patty put a big rag in the pail.

Teacher's Copy Assessing Letter Recognition in Context, continued

8. Put your finger on the line that begins with the moon.
Circle all of the capital and lower-case f's that you can find in the sentence on that line.

Fred's father is a good farmer.

9. Put your finger on the line that begins with the turkey.
Circle all of the capital and lower-case t's that you can find in the sentence on that line.

Take that new toy to your room.

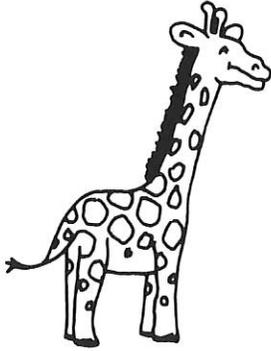
10. Put your finger on the line that begins with the television.
Circle all of the capital and lower-case w's that you can find in the sentence on that line.

Who wants to get a white kitten?

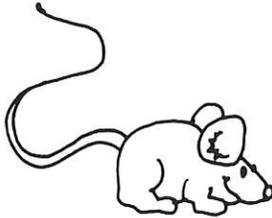
CHILD'S COPY

ASSESSING LETTER RECOGNITION IN CONTEXT

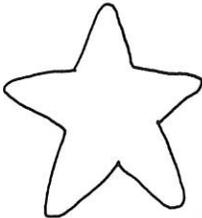
Name _____ Date _____



Go get a glass of milk for me.



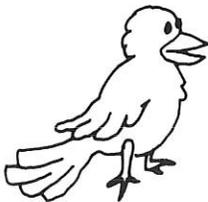
Ann and Amy are nice girls.



Joe and Jack can jump just fine.



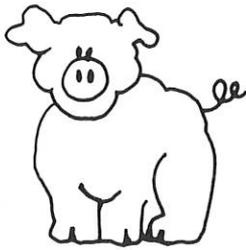
I hope Ray runs right home.



My mother makes nice meals.



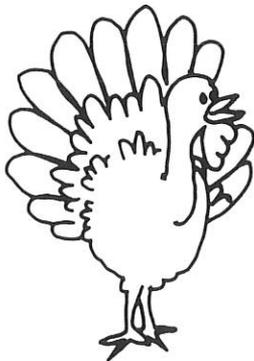
That boy has a big black dog named Buddy.



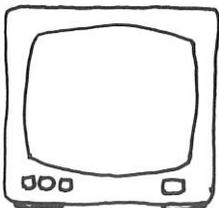
Patty put a big rag in the pail.



Fred's father is a good farmer.



Take that new toy to your room.



Who wants to get a white kitten?

Sight-Word Knowledge

It is extremely important for all children in elementary school to be competent in *sight-word knowledge*. Sight-word knowledge consists of two different elements: *sight-word recognition* and *sight-word identification*. The latter is the more difficult of the two since a child must be able to identify a word, not merely recognize it, in actual reading.

However, sight-word recognition—the less relevant skill—is more commonly assessed and practiced in elementary reading instruction. Although sight word recognition may be an acceptable skill to assess and practice, it certainly is more useful to provide diagnosis and instruction in sight-word identification.

Sight words can be described in a number of different ways. They are those words that a reader recognizes immediately upon seeing. A reader does not have to stop and analyze sight words by using word-identification techniques such as phonic (graphophonetic) analysis or structural (morphemic) analysis. However, sight words also can be described as those words that do not have a regular sound-symbol relationship. Therefore, such words cannot be analyzed effectively but are most effectively recognized as a total unit or word. Some examples of sight words are *have, of, father, said, dog, though, through, and off*.

Environmental print is a concept now recognized as very important in emergent literacy. These are words commonly found in the environment of preschool and kindergarten children. They are part of the child's environment, and he/she learns to recognize and identify them mainly by noticing them and asking an adult or older sibling what that word is. Some common examples of environmental print are: *STOP, McDonald's, Wal-Mart, Target, Cheerios®, Crest®, Hardees, and Campbell's*.

Although more detail about sight-word knowledge is provided in Chapter 5, the most useful sight words are found in one of the common sight word lists, the *Dolch Basic Sight Word List*, which was formulated by the late Edward Dolch of the University of Illinois in 1941. Although you may think the list must be dated, this is really not the case because the words contained in it are comparable to those contained in the newer word lists. This list of 220 service words is said to make up about 70 percent of the words found in most first-grade readers and about 65 percent of the words contained in most second-grade and third-grade readers. As with all sight-word lists, the majority of words contained in the Dolch List are *structure or function words*, which means they have no referent. For example, the word *of* does not represent anything as does the word *dog*, which is not a structure or function word. Structure or function words are harder for most children to learn or identify than *content words*, which have a concrete referent. Some examples of structure or function words are *the, though, and would*; some examples of content words are *elephant and run*.

You can obtain a copy of the Dolch List for a nominal cost from the following address:

Garrard Publishing Company
1607 North Market Street
Champaign, IL 61820

The following table can be used to determine a child's approximate instructional reading level as established by the performance on the Dolch Basic Sight Word List. I have found these percentages *applicable* to the other sight-word lists also. (The percentages are from Maude McBroom, Julia Sparrow, and Catherine Eckstein, *Scale for Determining a Child's Reader Level*. Iowa City, Iowa: Bureau of Publications, Extension Service, University of Iowa, 1944, p. 11.

Words Recognized	Reading Level
0-75	Preprimer
76-120	Primer
121-170	First Reader
171-210	Second Reader
More than 210	Third Reader or above

Edward Fry, Professor Emeritus of Rutgers University, also has compiled a new version of his *Instant Words*, which he first compiled in 1957. The first 100 words make up half of all written materials, and the 300 words make up 85 percent of all written materials. A copy of *Fry's Instant Words* is included in Chapter 5 of this book and can be reproduced. There are several other useful sight-word lists; however, you should find the preceding two undoubtedly the most useful.

Assessing Sight-Word Knowledge in Isolation

Sight-word knowledge can be assessed both in isolation and in context. Although the whole language philosophy prefers that sight-word knowledge be assessed and taught in sentence and story context, some of the sight words should be taught and practiced in isolation especially with children who have a very difficult time remembering them and with learning-handicapped children who often have extreme difficulty remembering them.

At the emergent literacy level, you may wish to evaluate a child's knowledge of environmental print. As stated earlier, these are words a child is likely to meet in his/her environment. Knowledge of environmental print often is related to success in emergent literacy.

Activity Sheets for Assessing Knowledge of Environmental Print in Isolation and in Context

Here are two devices for assessing a child's knowledge of environmental print in isolation and in context. You can duplicate them in their present form or modify them in any way you wish.

TEACHER'S COPY
ASSESSING ENVIRONMENTAL PRINT IN ISOLATION
(Emergent Literacy Level)

1. Put your finger on the line that begins with the flower.
In that line put an X on the word that says Wal-Mart.

Walkman Wal-Mart Walker

2. Put your finger on the line that begins with the cat.
In that line put an X on the word that says STOP.

STOP SPOT TOP

3. Put your finger on the line that begins with the apple.
In that line put an X on the word that says McDonald's.

Donald McDonald's McCoy

4. Put your finger on the line that begins with the pencil.
In that line put an X on the word that says Crest.

Creep Rest Crest

5. Put your finger on the line that begins with the light bulb.
In that line put an X on the word that says Soup.

Soup Sip Sup

6. Put your finger on the line that begins with the tree.
In that line put an X on the word that says Mother.

Mother Map Milk

7. Put your finger on the line that begins with the star.
In that line put an X on the word that says Hardee's.

Hard Hardee's Help

8. Put your finger on the line that begins with the cup.
In that line put an X on the word that says School.

Skip Should School

9. Put your finger on the line that begins with the book.
In that line put an X on the word that says Corn.

Corn Could Can

10. Put your finger on the line that begins with the lion.
In that line put an X on the word that says Street.

String Street Treat

CHILD'S COPY
ASSESSING ENVIRONMENTAL PRINT IN ISOLATION
(Emergent Literacy Level)

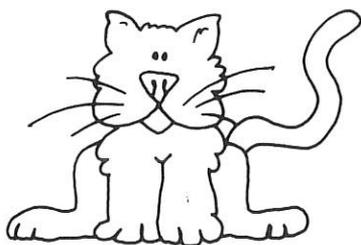
Name _____ Date _____



Walkman

Wal-Mart

Walker



STOP

SPOT

TOP



Donald

McDonald's

McCoy



Creep

Rest

Crest

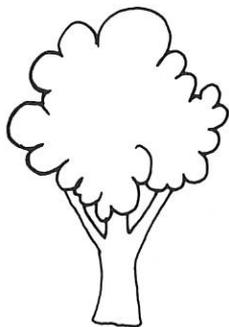


Soup

Sip

Sup

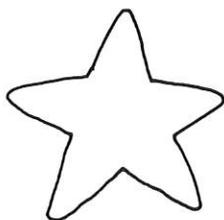
Child's Copy Assessing Environmental Print in Isolation, continued



Mother

Map

Milk



Hard

Hardee's

Help



Skip

Should

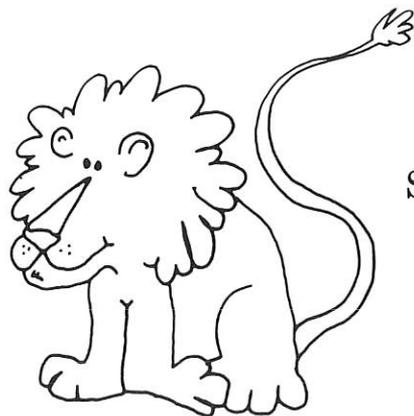
School



Corn

Could

Can



String

Street

Treat

TEACHER'S COPY
ASSESSING ENVIRONMENTAL PRINT IN CONTEXT
(Emergent Literacy Level)

1. Put your finger on the line that begins with the man.
In the sentence on that line put an X on the word Wal-Mart.

We like to go to Wal-Mart.

2. Put your finger on the line that begins with the elephant.
In the sentence on that line put an X on the word STOP.

A STOP sign is red and white.

3. Put your finger on the line that begins with the tree.
In the sentence on that line put an X on the word McDonald's.

It is fun to go to McDonald's.

4. Put your finger on the line that begins with the girl.
In the sentence on that line put an X on the word Crest.

I like to use Crest toothpaste.

5. Put your finger on the line that begins with the house.
In the sentence on that line put an X on the word soup.

I like to eat soup for lunch.

6. Put your finger on the line that begins with the ball.
In the sentence on that line put an X on the word mother.

I love my mother very much.

7. Put your finger on the line that begins with the sun.
In the sentence on that line put an X on the word Hardee's.

We like to go to Hardee's to eat.

8. Put your finger on the line that begins with the moon.
In the sentence on that line put an X on the word school.

I like to go to school.

9. Put your finger on the line that begins with the drum.
In the sentence on that line put an X on the word corn.

I don't like to eat corn.

10. Put your finger on the line that begins with the snowman.
In the sentence on that line put an X on the word street.

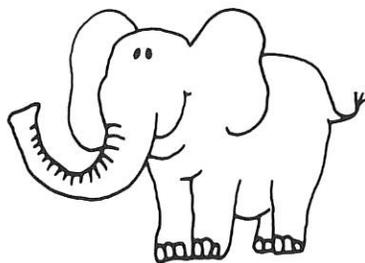
We live on a very nice street.

CHILD'S COPY
ASSESSING ENVIRONMENTAL PRINT IN CONTEXT
(Emergent Literacy Level)

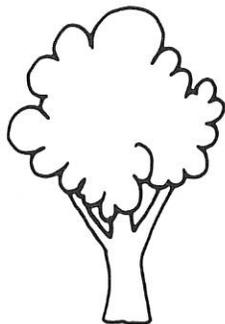
Name _____ Date _____



We like to go to Wal-Mart.



A STOP sign is red and white.



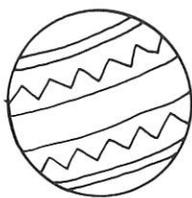
It is fun to go to McDonald's.



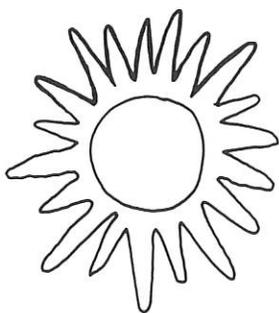
I like to use Crest toothpaste.



I like to eat soup for lunch.



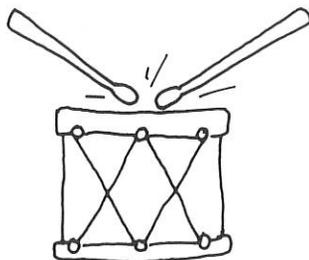
I love my mother very much.



We like to go to Hardee's to eat.



I like to go to school.



I don't like to eat corn.



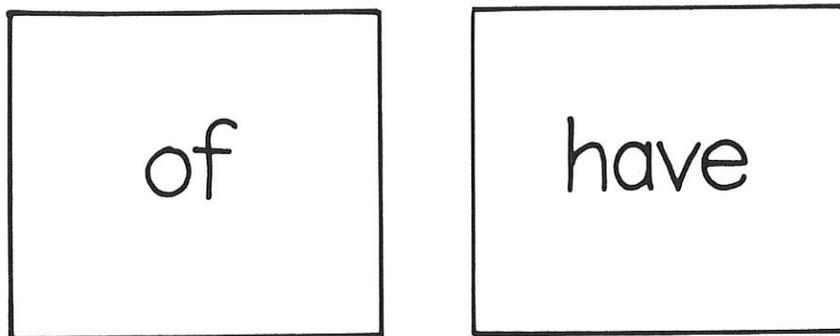
We live on a very nice street.

Using a Sight-Word List to Assess Words in Isolation _____

Sight-word knowledge can be assessed in isolation by placing a random sampling of words from a sight-word list such as the *Dolch* list or *Fry's Instant Words* either on individual word cards or by printing or typing them in short lists.

It is important to place each selected sight word on an individual word card for children who are reading at the beginning primary-grade level. These are often children in first grade, disabled readers who are functioning at about that reading level, or learning-handicapped children. Many students with learning disabilities have difficulty pronouncing sight words on a list. Such a child may well become frustrated just from seeing all of the words on such a list, and subsequently may not make much of an effort to pronounce the words.

To construct such word cards, randomly select about twenty words from the level of the sight-word list you wish to use. Then print each word on a separate small card (about 2 or 3 inches square) with a marking pen. Then present the word cards in random order and have the child identify each one of them.



You also can evaluate a child's sight-word knowledge in a group setting by using an assessment device designed for this purpose. However, you should understand that such a device evaluates ability in sight-word recognition instead of sight-word identification. As you remember from the discussion earlier in this chapter, sight-word identification, not sight-word recognition, is required in reading. Even though such a device saves considerable time and may therefore be more practical, it is not quite as accurate as an individually administered device. Therefore, a group-administered device may be more beneficial for less disabled readers.

Activity Sheets for Assessing Sight-Word Recognition in Isolation

Here are devices for assessing a child's sight-word recognition in isolation on the first-, second-, and third-grade levels. You can duplicate them in their present form or modify them to suit your particular needs.

These are the words you should pronounce from each sheet:

First-Grade Level

1. you
2. two
3. their
4. have
5. long
6. into
7. part
8. did
9. people
10. who
11. on
12. call
13. than
14. first
15. but

Second-Grade Level

1. want
2. very
3. small
4. found
5. give
6. spell
7. know
8. right
9. old
10. kind
11. animal
12. still
13. and
14. great
15. say
16. change
17. place
18. line
19. try
20. little

Third-Grade Level

1. start
2. second
3. river
4. family
5. example
6. earth
7. music
8. while
9. enough
10. talk
11. plant
12. below
13. between
14. paper
15. young
16. food
17. walk
18. carry
19. without
20. face

ASSESSING SIGHT-WORD RECOGNITION IN ISOLATION (First-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

In each line circle the word that your teacher pronounces.

- | | | | |
|----------|-------|--------|------|
| 1. you | was | be | this |
| 2. with | which | two | look |
| 3. if | their | at | make |
| 4. more | have | from | find |
| 5. her | would | down | long |
| 6. may | made | into | some |
| 7. part | water | first | down |
| 8. see | go | did | get |
| 9. so | these | people | no |
| 10. who | long | down | oil |
| 11. way | boy | on | find |
| 12. him | call | now | down |
| 13. over | than | could | as |
| 14. did | day | first | will |
| 15. use | an | but | or |

ASSESSING SIGHT-WORD RECOGNITION IN ISOLATION

(Second-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

In each line circle the word that your teacher pronounces.

- | | | | |
|------------|-----------|---------|---------|
| 1. new | want | show | only |
| 2. most | very | point | page |
| 3. small | three | letter | mother |
| 4. home | different | found | answer |
| 5. man | sentence | give | work |
| 6. air | spell | change | put |
| 7. small | year | live | know |
| 8. right | before | does | another |
| 9. any | old | large | because |
| 10. good | just | kind | picture |
| 11. need | play | away | animal |
| 12. still | should | world | high |
| 13. study | land | through | tell |
| 14. our | just | where | great |
| 15. after | say | think | back |
| 16. change | again | much | help |
| 17. me | place | our | most |
| 18. sound | hand | well | line |
| 19. big | set | try | thing |
| 20. little | too | even | such |

ASSESSING SIGHT-WORD RECOGNITION IN ISOLATION (Third-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

In each line circle the word that your teacher pronounces.

- | | | | |
|------------|-----------|----------|---------|
| 1. near | don't | start | thought |
| 2. second | sometimes | mountain | head |
| 3. group | four | river | almost |
| 4. family | real | above | soon |
| 5. begin | example | once | book |
| 6. carry | never | close | earth |
| 7. music | body | color | grow |
| 8. example | eye | while | few |
| 9. watch | enough | face | idea |
| 10. talk | mile | children | until |
| 11. miss | might | plant | country |
| 12. below | between | add | left |
| 13. next | hard | between | hard |
| 14. river | sea | mile | paper |
| 15. young | open | list | every |
| 16. own | food | along | keep |
| 17. seem | night | white | walk |
| 18. hear | stop | carry | began |
| 19. took | once | without | miss |
| 20. idea | eat | face | color |

Assessing Sight-Word Knowledge in Context

As stated earlier, sight-word knowledge can be assessed in context as well as in isolation. Assessment of sight-word knowledge in the context of sentences and paragraphs is in keeping with whole-language philosophy. However, it may not be particularly useful with learning handicapped children; their assessment can be more effectively done in isolation.

Proponents of the whole-language approach correctly state that sight-word knowledge is most meaningful to children when the sight words are found in their own dictated or written language-experience stories, in predictable books and in other easy-to-read trade-books. For example, the sight word *laugh* probably is easiest for most children to remember when it is found in a dictated or written experience story. The sight word *what* is very easily remembered when the book *Brown Bear, Brown Bear, What Do You See?* is read by a child. (Chapter 5 presents a number of interesting, meaningful ways in which sight words can be presented and reinforced in sentence and story context.)

Activity Sheets for Assessing Sight-Word Recognition in Context

Here are devices you can use to assess a child's sight-word recognition in context. You can duplicate them in their present form or modify them any way you wish.

SPECIAL NOTE: The same sight words are used at the first-grade, second-grade and third-grade levels in the devices to assess sight-word recognition in isolation and in context. Thus, the teacher can make a direct comparison between a child's ability in sight-word recognition in isolation and context.

Although this is not always the case, a learning-handicapped child sometimes does better in sight-word recognition in isolation than in context. On the other hand, some disabled readers sometimes do better in sight-word recognition in context than in isolation.

These are the words you should pronounce from each sheet:

<i>First-Grade Level</i>	<i>Second-Grade Level</i>	<i>Third-Grade Level</i>
1. you	1. want	1. start
2. two	2. very	2. second
3. their	3. small	3. river
4. have	4. found	4. family
5. long	5. give	5. example
6. into	6. spell	6. Earth
7. part	7. know	7. music
8. did	8. right	8. while
9. people	9. old	9. enough
10. who	10. kind	10. talk
11. on	11. animal	11. plant
12. call	12. still	12. below
13. than	13. world	13. between
14. first	14. great	14. paper
15. but	15. say	15. young
	16. change	16. food
	17. place	17. walk
	18. line	18. carry
	19. try	19. without
	20. little	20. face

ASSESSING SIGHT-WORD RECOGNITION IN CONTEXT (First-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

In each sentence circle the one word that your teacher pronounces.

1. Are you a happy boy?
2. Jay saw two dogs and two cats.
3. I saw their mother.
4. I have a black cat.
5. That is a long nail.
6. Billy ran into his house.
7. I ate part of an apple.
8. Did you see that girl?
9. Sam saw three people at school.
10. Who is that new boy?
11. My cat is on the table.
12. Can you call my friend for me?
13. I am bigger than Fred.
14. My first name is Sara.
15. I can't go, but I am happy that you can.

ASSESSING SIGHT-WORD RECOGNITION IN CONTEXT

(Second-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

In each sentence circle the one word that your teacher pronounces.

1. Do you want to get a skateboard for your birthday?
2. My grandfather is a very old man.
3. That is a very small piece of cake.
4. Jim found a dime on the way to school.
5. Will you give me a game for my birthday?
6. I don't know how to spell the word giraffe.
7. Do you know how old Kay is?
8. My mother wants me to come right home after school.
9. I am seven years old.
10. My grandmother is a very kind woman.
11. A cat is the animal that I like the best.
12. Tony still is my best friend.
13. I don't know much about the world.
14. I think that candy is great.
15. I don't think you should say that about Sue.
16. My little sister should change her clothes.
17. The place my mother likes best is home.
18. Draw a line under the word yellow.
19. Can you try to be quieter?
20. Jack has a little brother.

ASSESSING SIGHT-WORD RECOGNITION IN CONTEXT (Third-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

In each sentence circle the one word that your teacher pronounces.

1. Yesterday morning my father's car wouldn't start.
2. Dave's little brother is in second grade at our school.
3. My father can swim all the way across the river.
4. My best friend has a very nice family.
5. Jeff's father is a very good example of a nice man.
6. Everyone should take better care of our Earth.
7. Mike doesn't like to take music lessons very much.
8. Can you wait for me while I finish my book?
9. Bert doesn't have enough money to buy a new bicycle.
10. Maria doesn't want to talk to me any more.
11. A plant never grows well for my mother.
12. It was five degrees below zero yesterday morning.
13. We live between two very good neighbors.
14. Please pick that paper up right now.
15. His father is a young man.
16. My favorite food certainly is pizza.
17. I like to walk to school unless it's too cold.
18. Can you carry these groceries home for me?
19. I don't like to eat a hamburger without catsup.
20. That little boy's face is very dirty.

Phonic (Graphophonic) Analysis

It is possible for a child to be a competent reader with limited phonic analysis ability. Nevertheless, *phonic (graphophonic)* analysis certainly is an extremely important skill for most children to learn. It is essential for all children to master at least the most rudimentary phonic elements such as consonants, long and short vowels, consonant blends, consonant blends, consonant digraphs, diphthongs, and phonograms (word families). Phonic analysis is often considered an important skill for learning-handicapped children to master, unless the child is very weak in the auditory channel (auditory discrimination or auditory memory).

Although more detail about phonic analysis is provided in Chapter 5, it can be defined as using phoneme-grapheme (sound-symbol) relationships to decode unknown words. To be an effective technique, the unknown word should be in the child's *speaking vocabulary* so that he/she will recognize it as an actual word after it is analyzed by the use of phonic elements. Phonic analysis is often more useful when combined with contextual analysis. As an example, notice how the addition of an initial consonant in the following sentence helps you to determine the omitted word:

Sally would like to get a d_____ for her birthday.

bracelet
doll
kitten

Therefore, it is very important to assess a child's specific strengths and weaknesses in the various elements of phonic (graphophonic) analysis with as much precision as possible so that you know which important phonic elements and rules the child must learn and practice.

Assessing Phonic (Graphophonic) Analysis in Isolation

A child's ability in phonic (graphophonic) analysis can be assessed either in isolation or in *sentence* or *story context*. Although the majority of the proponents of the whole-language philosophy believe assessment and instruction should be made in context, it may be more useful for the assessment to be made in isolation, especially for severely disabled readers and learning-handicapped children. Such children often have extreme difficulty in discriminating between some of the phonic elements, especially those of the *short vowel sounds*. Discriminating between short *e* and short *i* are extremely difficult for such children.

There are several devices you can use to effectively assess a child's ability in phonic (graphophonic) analysis. They are: observational checklists, individually-administered inventories in phonic (graphophonic) analysis, and group-administered inventories in phonic (graphophonic) analysis. (Chapter 2 of this *Handbook* contained several observational checklists you can use to assess a child's ability in the various word-identification and comprehension techniques.) However, this chapter does include an individually administered and a group-administered inventory in phonic analysis.

Individually Administered Inventory in Phonic (Graphophonic) Analysis

The individually-administered inventory in phonic (graphophonic) analysis is at the second-grade reading level. It normally is more accurate to give a moderately or severely disabled reader or a learning-handicapped child an individually administered inventory in phonic analysis since this type of device evaluates phonic analysis skills the same way they are used in reading. For example, such an inventory evaluates symbol-sound relation-

ships similar to what is required in actual reading. On the other hand, a group-administered phonic analysis inventory assesses ability in sound-symbol relationships, an easier task but one that is not required in actual reading situations. However, a group-administered inventory in phonic analysis does save you time and, therefore, may be acceptable for mildly disabled readers.

You can duplicate and use this inventory in its present form if it seems relevant or modify it any way you want. You also can use it as a model for constructing your own phonic analysis inventory.

Note to the Teacher and Answer Key

You may not want to include the directions for each section of the following inventory on the child's copy. If they are contained on the child's copy, you may want to read each direction aloud or have the child read it aloud.

The hard and soft sounds of *c* as in the words *cup* and *city* and the hard and soft sounds of *g* as in the words *gum* and *gem* both should be considered correct.

Both the voiced *th* as in the word *them* and the voiceless *th* as in the word *thin* should be considered correct.

pōtə	hēt	drīck	kn̩er
fōæt	jōld	stūt	scrūt
lēæt	zākə	vūt	glāt
māpēt	dūblə	vād̩y	nūt̩tər

INDIVIDUALLY ADMINISTERED ORAL PHONIC (GRAPHOPHONIC) ANALYSIS INVENTORY (Second-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

1. Pronounce a word beginning with each consonant sound or pronounce the consonant sound in isolation.

d	c	f	t	m	s
j	p	r	w	b	g

2. Pronounce a word beginning with each consonant blend or pronounce the consonant blend in isolation.

scr	fl	st	gr	sn	dr
bl	str	sm	tw	fr	cl

3. Pronounce a word beginning with each consonant digraph or pronounce the consonant digraph in isolation.

sh	th	ch	ph	wh
----	----	----	----	----

4. Pronounce each group of letters as they would be pronounced in a word.

gn	wr	kn	ck
----	----	----	----

5. Pronounce each diphthong in isolation or give a word containing that diphthong.

oi	ow	oy	ou
----	----	----	----

6. Pronounce each nonsense word (pseudoword) using the correct phonic rule.

pote	het	drick	kner
foat	jold	stut	scrut
leat	zake	vut	glat

7. Pronounce each nonsense word (pseudoword) by blending the two syllables together.

map et	du ble	va dy	nut ter
billow	cascade	codfish	drone
katydid	knapsack	shadow	stride
district	clench	droll	distill

Group-Administered Inventory in Phonic (Graphophonic) Analysis

This is a group-administered inventory in phonic (graphophonic) analysis at about the fourth-grade reading level. As stated earlier, although a group-administered inventory in phonic analysis saves time, it normally is not as accurate in diagnosing competencies and weaknesses in phonic analysis as an individually administered one. Therefore, you should use it with only moderately disabled readers at that level.

You can duplicate and use this inventory in its present form or modify it any way you want. In addition, you can use it as a model for constructing your own phonic analysis inventory

The answers are given at the end of this chapter.

GROUP-ADMINISTERED PHONIC (GRAPHOPHONIC) ANALYSIS INVENTORY

(Fourth-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

1. Mark the vowels long or short in each of these words and then pronounce each word.

billow	cascade	codfish	drone
katydid	knapsack	shadow	stride
district	clench	droll	distill

2. Underline the vowel in each word that is r-controlled and then pronounce each word.

clergy	contractor	circle	harness
lurch	person	surface	tower

3. Underline the vowel in each word that represents the schwa sound and then pronounce each word.

vagrant	absolute	bantam	barracks
caravan	cobra	concentrate	dismal

4. Underline the consonant blend in each word and then pronounce each word.

scramble	straight	platinum	prickle
flamingo	criticism	clipper	glimpse

5. Underline the consonant digraph in each word and then pronounce each word.

anguish	photograph	whiff	shadow
thunderclap	charcoal	treacherous	triumph

6. Underline the diphthong in each word and then pronounce each word.

avoid	boyhood	outrageous	prowl
exploit	coward	pay	slouch

7. Underline the vowel digraph in each word and then pronounce each word.

receipt	dread	reasonable	measure
creature	breath	weather	belief

8. Underline the words that contain the soft c or g sounds and then pronounce each word.

constitution	custom	combine	gardenia
celebrate	cinder	gemstone	canoe

Group-Administered Phonic (Graphophonic) Analysis Inventory, continued

9. Underline the words that contain the hard c or g sounds and then pronounce each word.

cove	comedian	genuine	course
gallant	gingerly	guide	canyon

10. Put a / (slash mark) through each silent letter in these words and then pronounce each word.

design	knot	iodine	knowledge
wreckage	gnat	stride	gnome

11. Mark each vowel in these nonsense words (pseudowords) either long, short, or silent.

blate	chune	shap	scry
cheach	bladdy	scright	nute
fleach	gleet	tugle	vome

12. Each of these words is spelled phonetically. Write each word using the correct spelling on the line below that word.

ə bun'dens

bus'əl

par'ə līz

ri pent'

tār'nish

yon'dər

dred

hār'nīs

mut'ər

rəz' e dənt

ser'fis

hej

How Oral Reading Miscue Analysis Emphasizing Phonic (Graphophonic) Analysis Is Used in Assessment

As you may remember from the detailed discussion found in Chapter 2 of this *Handbook*, *oral reading miscue analysis* is very helpful in assessing a child's competency in various aspects of reading performance. One of those aspects was a graphic change that is part of phonic analysis ability.

Susan B. Argyle's system for coding oral reading miscues was described and illustrated in detail in that chapter. For example, if a student made a number of miscues that resulted in *graphic changes*, he/she probably may need some instruction in either phonic analysis or structural analysis depending upon their frequency or whether or not they interfered significantly with comprehension.

If you refer back to the *Summary Sheet of Oral Reading Miscues* on page 53, you can determine from this analysis whether the child made the graphic change in the beginning, middle, or end of a word. Thus, you will know whether you should probably stress initial consonants, initial consonant blends, initial consonant digraphs, medial vowels, medial vowel digraphs, r-controlled vowels, final consonants, or final consonant blends. This simple oral miscue analysis, therefore, should provide you with a wealth of information about a student's abilities in phonic analysis without expending a great deal of time and effort.

How Ability in Phonic (Graphophonic) Analysis Is Assessed in Context

As previously stated, phonic (graphophonic) analysis can be assessed in context as well as in isolation. Assessment of phonic analysis ability in the context of words, sentences, and paragraphs is in keeping with the contemporary whole-language philosophy. However, such assessment in context may not be very useful with learning-handicapped children. In many cases their diagnosis (assessment) can be more effectively made in isolation.

Proponents of the whole-language approach correctly state that phonic analysis probably is more meaningful to most children when the words to be analyzed phonetically are found in actual reading materials, such as dictated or written language-experience stories, predictable books, or other easy-to-read tradebooks. For example, the sound of the consonant *b* probably is the most meaningful to a child when it is used in an entire word such as the word *big*.

Here is an example of how to assess a kindergarten child's knowledge of phonic analysis during demonstrations of the language-experience approach using dictated stories. After a child or several children dictate a language-experience story, ask the child or children to circle and pronounce all of the words that begin with a certain consonant such as *f*, *m*, *s*, or *t*. Next you might ask them to circle and pronounce any word that rhymes with a target word, such as *run*. Predictable books and other easy tradebooks could be used for the assessment of ability in phonic analysis in about the same way.

Ability in phonic analysis can also be assessed in context using various types of activity sheets. In the next section of this chapter, you will find a ready-to-duplicate activity sheet that can be used for this purpose. The variation of the cloze procedure that combines phonic analysis and context can also be used for assessing competency in phonic analysis. (As you remember, Chapter 2 contained a ready-to-use example of the version of the cloze procedure about Walt Disney; therefore, one is not included here.) *Computer software* can be used effectively to assess, teach, and reinforce various elements of phonic analysis. Appendix I of this *Handbook* contains a list of computer software sources.

A number of the diagnostic tests listed and described in Chapter 2 can also be very helpful in assessing a child's specific strengths and weaknesses in the various elements of phonic analysis. You are encouraged to refer back to that chapter for information on the content of these standardized devices.

**Device for Assessing Ability in Phonic (Graphophonic)
Analysis in Context**

Here is a ready-to-duplicate activity sheet for assessing ability in phonic analysis. You can duplicate and use this sheet in its present form or modify it any way you wish. You also can use it as a model for your own device of this type.

The answers are given at the end of this chapter.

**GROUP-ADMINISTERED
PHONIC (GRAPHOPHONIC) ANALYSIS
ASSESSMENT DEVICE IN SENTENCE CONTEXT
(Approximately Third-Grade Level)**

Name_____ Grade_____ Teacher_____ Date_____

Read each sentence to yourself and do what it tells you to do.

1. Circle the word in this sentence that contains a long vowel sound:

Mark wants to get a game for Christmas.

2. Circle a word in this sentence that contains a short vowel sound:

The month of July is very hot.

3. Circle the word in this sentence that contains an r-controlled vowel sound:

Paul's new shirt has black and white stripes.

4. Circle the word in this sentence that contains a consonant blend:

Josie really liked to see the large snake at the zoo.

5. Circle the word in this sentence that contains a consonant digraph:

I saw a very thin man at the park yesterday.

6. Circle the word in this sentence that contains a vowel digraph:

Patti hopes that it will not rain today.

7. Circle the word in this sentence that contains a final-e marker:

Pam's mother bought a big cake for her eighth birthday party.

8. Circle the word in this sentence that contains a schwa sound:

My pencil just broke, and I can't do my homework.

9. Circle the word in this sentence that contains a hard c sound:

Joan is not able to have a cat since she lives in an apartment in the city.

10. Circle the word in this sentence that contains a soft c sound:

When it gets cold outside, mice may try to come into the house.

Group Phonic Analysis Assessment in Sentence Context, continued

11. Circle the word in this sentence that contains a hard g sound:

A goat may not always be a gentle animal.

12. Circle the word in this sentence that contains a soft g sound:

Sally wants to give Betsy a gemstone for her birthday.

13. Circle the word in this sentence that contains a silent letter:

I hurt my knee very badly yesterday.

14. Circle the word in this sentence that contains a silent letter:

Sally is going to write to her grandmother today.

15. Circle the word in this sentence that contains a silent letter:

No animal is truly dumb.

Structural (Morphemic) Analysis

Structural analysis or *morphemic analysis* can be defined as using word structure or word parts to determine the pronunciation and meaning of unknown words encountered during reading. This word-identification technique is especially helpful in improving vocabulary using meanings of prefixes, suffixes, and word roots.

Although structural analysis is discussed in more detail in Chapter 5, very briefly it is composed of a number of different subskills. One important subskill is the attaching of a prefix or suffix (affix) to a base or root word to form a derivative. This technique of word identification also deals with *inflections*, changes in a word that are made for grammatical reasons. For example, an inflection occurs when the singular form of the word *boy* is made into the plural form by adding the suffix *s*.

Structural analysis also deals with the term *morpheme* which is the smallest unit of meaning in a language. Some other subskills of structural analysis are the understanding and use of syllabication, compound words, stress, and word origins.

With the emphasis on whole language, structural analysis often should be taught and practiced in the context of meaningful reading. However, structural analysis skills should occasionally be presented and reinforced in isolation and in phrase context. Yet for many children, structural analysis may be more useful than phonic analysis since it deals with larger, more meaningful units of language. However, it continues to be important for phonic elements to be emphasized with many learning-handicapped children.

In general, structural analysis is often the most useful when used in conjunction with contextual analysis or phonic analysis. For example, if a child is to attack a polysyllabic word structurally, he/she must be able to decode each of the syllables by the use of phonic analysis and then blend the syllables together into what should be a recognizable word (a word in the child's speaking vocabulary). After the word has been analyzed both structurally and phonetically, the child must determine whether it makes sense in sentence context.

Chapter 5 of this *Handbook* presents lists of the meanings of the most common and useful prefixes, suffixes, and word roots. In addition, that chapter presents many classroom-tested strategies and materials for teaching and practicing the various elements of structural analysis both with average and learning-handicapped students.

How Ability in Structural (Morphemic) Analysis Is Assessed in Isolation

There are several ways in which ability in structural analysis can be assessed in isolation. One is by using teacher observation with the aid of a structured checklist. Several observational checklists which contained parts devoted to the observation of structural analysis ability are given in Chapter 2 of this *Handbook*.

Individually administered or group-administered inventories also can be used to ascertain ability in elements of word structure. Normally it is not necessary to administer an individual inventory in structural analysis as is the case with an inventory in phonic analysis. Most often a group inventory will be sufficient to give you sufficient insight into a child's competencies and weaknesses in structural analysis.

Any such inventory in structural analysis can attempt to determine a child's ability in such subskills of word structure as: prefixes, suffixes, base or root words, contractions, compound words, syllabication, and accent (stress). As an aid for constructing your own structural analysis inventory, you can consult the appropriate pages of the manuals or workbooks of a basal reader series or other commercial materials. After evaluating the structural analysis inventory, you should try to present and/or reinforce the specific subskills of word structure in which the student has been determined to lack competence.

Group-Administered Inventory for Assessing Competency in Structural Analysis in Isolation

Here is a group-administered inventory in structural analysis at the intermediate-grade reading level. You can duplicate and use the inventory in its present form or modify it to suit your needs. You can also use it as a model in constructing your own variation of this type of inventory if you wish.

The answers are given at the end of this chapter.

NOTE: *Oral reading miscue analysis* can also be helpful in assessing a child's competency in structural analysis. Although it may not be quite as useful in structural analysis as it is in phonic analysis, it still may be used for this purpose if you want. You should see Chapter 2 of this *Handbook* for a discussion of how to make this analysis.

GROUP-ADMINISTERED STRUCTURAL (MORPHEMIC) ANALYSIS INVENTORY IN ISOLATION

(Intermediate-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

1. Underline the base or root word in each word.

precisely	scratchy	absolutely	annoyed
prepaid	untangle	replace	calculating
savagely	befell	submerge	encircle

2. Underline the prefix in each word.

disappear	prepay	unusual	antifreeze
export	postdate	microwave	unearth
misspell	inconvenient	defrost	enlarge

3. Underline the suffix in each word.

affectionate	worthless	childhood	painter
cautiously	faithful	mosquitoes	swallowed
manageable	velvety	drifting	gloomily

4. Write the plural of each noun on the line.

ox _____	volcano _____
speech _____	canoe _____
tomato _____	valley _____
donkey _____	princess _____
country _____	goose _____

5. Divide these compound words by placing a / between each word.

hummingbird	headquarters	sandbank	whiplash
ferryboat	locksmith	sunshine	whirlwind
forefinger	overboard	bowstring	blueberry
lumberjack	steamboat	huckleberry	bumblebee

Group-Administered Structural (Morphemic) Analysis Inventory in Isolation, continued

6. Divide these words into syllables by placing a / between each syllable.

advantage	commotion	encourage	capable
ferry	enormous	topple	helicopter
skeleton	vanish	pioneer	yonder
stampede	rudder	wilderness	occasion

7. Mark the accented (stressed) syllable for each word in this way: be/long'.

adopt	extend	legend	octopus
plantation	preserve	propose	relate
scholarship	sober	torrent	elastic
moderate	computer	admit	borrow

Assessing Ability in Structural (Morphemic) Analysis in Context

As stated earlier, *structural (morphemic) analysis* ability can be assessed in context as well as in isolation. As you are aware, assessment of structural analysis ability in the context of sentences and paragraphs is in keeping with the current whole-language philosophy. However, such assessment in context may not be particularly useful with learning-handicapped children. In some cases, such diagnosis probably can be made more effectively in isolation.

Proponents of the whole-language approach accurately state that structural analysis undoubtedly is the most relevant to many children when the words to be analyzed structurally are found in actual reading materials of various types such as basal readers, tradebooks, or content textbooks. For example, the analysis of the word *microscope* probably is more meaningful when it takes place during an actual science reading assignment than from a list of words.

You can use a dictated language-experience story to assess the structural analysis ability of kindergarten children. To do so, after a child or several children dictate the story, ask the child or children to circle *s*, *ed*, or *ing*, making sure that the letters indeed were suffixes in the way in which they were used in the story.

Variations of the cloze procedure with different syntactic elements such as deleted nouns, adjectives, and verbs can be used to ascertain a child's understanding of the various syntactic elements. Ability in structural analysis in context also can be assessed by different types of activity sheets. In the next part of this chapter, you will find a ready-to-use activity sheet you can use for this purpose. Computer software also can be used to assess, teach, and practice various elements of structural analysis. Appendix I of this *Handbook* contains a list of computer software manufacturers and distributors.

Several of the diagnostic tests listed and described in Chapter 2 can also be useful in assessing a child's specific strengths and weaknesses in the different elements of word structure. You can refer to Chapter 2 for information on the content of these tests.

Device for Assessing Ability in Structural (Morphemic) Analysis in Context

Here is a ready-to-use device for assessing ability in structural analysis. You can duplicate and use this device in its present form or modify it any way you want. In addition, you can use it as a model for making your own activity sheet.

The answers for this activity sheet are given at the end of this chapter.

GROUP-ADMINISTERED STRUCTURAL (MORPHEMIC) ANALYSIS INVENTORY IN CONTEXT (Intermediate-Grade Level)

Name_____ Grade_____ Teacher_____ Date_____

1. Underline each word in this sentence that is a base or root word.

Crabs exemplify creatures possessing flattened shells.

2. Underline each word in this sentence that contains a prefix.

The submarine rapidly moved through the ocean,
apparently incapable of being destroyed.

3. Underline each word in this sentence that contains a suffix.

The ponies on the island smelled the storm and plunged against
their stalls trying to escape.

4. Underline each word in this sentence that is a plural.

On ranches, roping horses and cutting horses
are the most prized horses and are usually saved for special occasions.

5. Underline each compound word in this sentence.

My father has a grindstone in his basement workshop where
he likes to spend some time.

6. Underline each one-syllable word in this sentence.

Figure skating has always been one of my favorite winter sports.

7. Underline each two-syllable word in this sentence.

A baby beaver is a cunning little fellow
in soft brown fur with an innocent, round face.

8. Underline each three-syllable word in this sentence.

Many animals that spend a great deal of time in the water
have developed unusual ears so that they are protected from the water.

9. Underline each four-syllable word in this sentence.

Apparently a dog is usually a highly affectionate, loyal animal.

10. Underline each five-syllable word in this sentence.

It is absolutely essential for each student
to master the multiplication facts if this is possible.

learning-handicapped child is able to identify words in isolation more effectively than in context. On the other hand, most children are able to identify words in context better than they can identify words in isolation since they can make use of context while attempting to identify the unknown words. As explained earlier in the chapter, this is also the case in letter recognition and in identifying environmental print.

In addition to the assessment device given in the next section, the cloze procedure can be used to assess competency in semantic analysis as explained and illustrated in detail in Chapter 2 of this *Handbook*. That chapter also contained three ready-to-duplicate examples of the cloze procedure that you can use as models for constructing other variations of this device. You are encouraged to refer to Chapter 2 for the discussion and examples of the cloze procedure.

Criterion-referenced tests, too, can be used to assess strengths in semantic analysis. This type of test was discussed in detail in Chapter 2, and, again, you are encouraged to refer to that chapter for detail about this kind of test.

Individually Administered Assessment Device for Determining a Child's Competency in Identifying Words in Isolation and in Context

Here is an assessment device to help you determine an intermediate-grade child's ability to identify identical words in isolation and in context. You can duplicate and use this assessment device in its present form or modify it in any way you wish. You also can use it as a model for your own related type of assessment device.

INDIVIDUALLY ADMINISTERED DEVICE FOR ASSESSING COMPETENCY IN IDENTIFYING WORDS IN ISOLATION AND IN CONTEXT

(Approximately Fifth-Grade Level)

Name_____ Grade_____ Teacher_____ Date_____

Identifying Words in Isolation

Pronounce each of these words out loud.

- | | |
|--------------|-------------------|
| 1. compass | 14. oxygen |
| 2. indicate | 15. international |
| 3. ferry | 16. prairie |
| 4. prey | 17. knowledge |
| 5. clench | 18. delicate |
| 6. petunia | 19. adopt |
| 7. release | 20. capable |
| 8. prowl | 21. enormous |
| 9. solution | 22. coax |
| 10. skeleton | 23. jog |
| 11. phantom | 24. perch |
| 12. aisle | 25. urgent |
| 13. glacier | |

Identifying Words in Context

Read each of these sentences aloud trying to pronounce each of the underlined words correctly.

1. A compass can be very useful in the forest in case a person becomes lost.
2. My teacher did not indicate whether I did well on the arithmetic test that I took last week.
3. A ferry is a boat that carries people, animals, or goods back and forth, from one landing place to another.
4. Mice and birds often are prey of cats.
5. I should try not to clench my teeth when I become really angry.
6. A petunia is a very small, beautiful flower.
7. Unfortunately, I was not able to release the rabbit from its cruel trap.
8. A fox must prowl around to search for food.
9. Before you try to solve an arithmetic problem, you should try to estimate the solution.
10. A few children like to portray a skeleton for Halloween.

Individual Device for Identifying Words in Isolation and Context, continued

11. A phantom is a dim or shadowy appearance that may frighten a person.
12. The bride and her father walked down the aisle before the wedding.
13. I will be able to see a huge glacier when I travel to Alaska next summer.
14. A person needs to breathe oxygen in order to survive.
15. The word international can be defined as having to do with more than one country.
16. The prairie in our country had tall grass and few trees.
17. Although Maria's parents speak Spanish very well, she has no knowledge of it at all.
18. Pink is a pretty, delicate color.
19. Sandy would very much like to adopt a golden retriever puppy.
20. I think my mother is a capable, efficient person.
21. A whale is an enormous sea mammal.
22. Jay could not coax his father into taking him along on a trip to Walt Disney World.
23. Since I hurt my knee, I cannot jog anymore.
24. An owl will never fall off its perch in a tree.
25. My father received an urgent telegram from my older sister in the Marines.

ANSWERS TO "GROUP-ADMINISTERED PHONIC ANALYSIS INVENTORY"

1. billōw kātȳdīd dīstrīct	cāscādē knāpsāck clēnch	cōdfish shādōw drōll	drōnē strīdē dīstill
2. clērgy lurch	contractor person	circle surface	harness tower
3. vagrant caravan	absolute cobra	bantam concentrate	barracks dismal
4. scramble flamingo	straight criticism	platinum clipper	prickle glimpse
5. anguish thunderclap	photograph charcoal	whiff treacherous	shadow triumph
6. avoid exploit	boyhood coward	outrageous pay	prowl slouch
7. receipt creature	dread breath	reasonable weather	measure belief
8. constitution celebrate	custom cinder	combine gemstone	gardenia canoe
9. cove gallant	comedian gingerly	genuine guide	course canyon
10. design wreckage	know gnat	iodine stride	knowledge gnome
11. blātē chēāch flēāch	chūnē blāddy glēt	shāp scrīght tūglē	scrȳ nūtē vōmē
12. abundance paralyze tarnish	dread mutter surface	bustle repent yonder	harness resident hedge

ANSWERS TO "GROUP-ADMINISTERED PHONIC (GRAPHOPHONIC) ANALYSIS ASSESSMENT DEVICE IN SENTENCE CONTEXT"

1. game	6. rain	11. goat
2. hot	7. cake	12. gemstone
3. shirt	8. pencil	13. knee
4. snake	9. cat	14. write
5. thin	10. mice	15. dumb

ANSWERS TO "GROUP-ADMINISTERED STRUCTURAL (MORPHEMIC) ANALYSIS INVENTORY IN ISOLATION"

1. precise paid savage	scratch tangle fell	absolute place merge	annoy calculate circle
2. dis ex mis	pre post in	un micro de	anti un en
3. ate ly able	less ful y	hood es ing	er ed ly

4. oxen	volcanoes		
speeches	canoes		
tomatoes	valleys		
donkeys	princesses		
countries	geese		
5. humming/bird	head/quarters	sand/bank	whip/lash
ferry/boat	lock/smith	sun/shine	whirl/wind
fore/finger	over/board	bow/string	blue/berry
lumber/jack	steamboat	huckle/berry	bumble/bee
6. ad/van/tage	com/mo/tion	en/cour/age	ca/pa/ble
fer/ry	enor/mous	top/ple	he/li/cop/ter
skel/e/ton	van/ish	pi/o/neer	yon/der
stam/pede	rud/der	wil/der/ness	oc/ca/sion
7. adopt'	ex/tend'	leg'/end	oc'/to/pus
plan/ta'/tion	pre/serve'	pro/pose'	re/late'
schol'/ar/ship	so'/ber	tor'/rent	elas'/tic
mod'/er/ate	com/put'/er	ad/mit'	bor'/row

ANSWERS TO "GROUP-ADMINISTERED STRUCTURAL (MORPHEMIC) ANALYSIS
INVENTORY IN CONTEXT"

- | | |
|---------------|--------------------|
| 1. exemplify | 6. has |
| 2. submarine | been |
| incapable | one |
| 3. ponies | of |
| smelled | my |
| plunged | sports |
| stalls | 7. baby |
| trying | beaver |
| 4. ranches | cunning |
| horses | little |
| horses | fellow |
| horses | 8. animals |
| occasions | developed |
| 5. grindstone | protected |
| workshop | 9. Apparently |
| | affectionate |
| | 10. multiplication |

4

Ready-to-Use Materials for Diagnosing Disabilities in Comprehension and Basic Study Skills

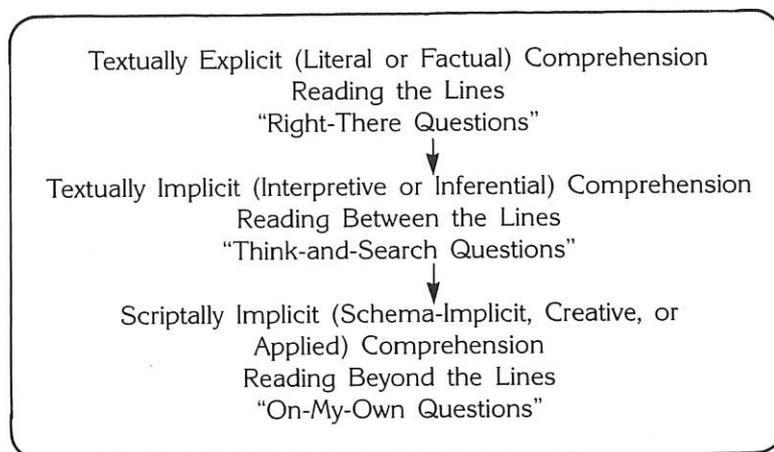
Many years ago I tutored a junior high school student at The University of Arizona Reading Clinic who could pronounce every word in her content textbooks correctly but could not even understand the lower-level, much less the higher-level, concepts presented in those textbooks. She certainly was not reading in any real sense. Obviously, it is essential to assess a student's competencies and weaknesses in the various elements of comprehension in order to help the child. This chapter is designed to help you do this as well as to make such an assessment in basic study skills.

What Is Reading Comprehension? _____

Although reading comprehension is a very complex process, it can be defined in simple terms such as *constructing and reconstructing meaning from the printed material*. It is an interactive process that requires the use of prior knowledge (previous experiences) which the reader combines with the information on the printed page. In most instances, prior knowledge is more important than the printed material. The more prior knowledge a reader possesses, the less printed material needs to be used.

Contemporary comprehension also emphasizes the use of prediction strategies and the setting of purposes for reading. In addition, it stresses metacognition (self-monitoring of the reading material). These aspects of comprehension are described and illustrated in detail in Chapter 6.

Comprehension often is thought of as a global, language-based process that can be divided into two major areas: vocabulary knowledge (word meaning) and the understanding of what is read. However, a number of reading specialists still find it useful to think of the following elements (levels) of reading comprehension:



How Observational Checklists Are Used in Assessing Comprehension

One of the simplest, most effective means of assessing competency in the various elements of comprehension is by teacher observation. As explained in Chapter 2, such teacher observation can occur on an individual basis, group basis, or in a whole-class setting. Teacher observation is easy to implement since it can occur along with teacher instruction.

Teacher observation often can be enhanced by the use of a structured checklist that gives you direction in what behaviors to look for when making the observations. The primary-grade and intermediate-grade checklists included in Chapter 2 contain sections devoted to assessing comprehension at both of these reading levels. Therefore, an observational checklist is not included in this chapter, and you are encouraged to refer to the checklists in Chapter 2. You can duplicate the checklists and use them in their entirety or use just the portions devoted to the assessment of comprehension abilities.

Some Types of Questioning Strategies

Questions posed before, during, or after reading are the single most effective means of assessing comprehension ability. In addition, they are one of the easiest assessment strategies to implement since they often can be used along with teacher instruction in comprehension.

Questions can be used *before reading instruction* for a variety of purposes. They can be used to assess and activate prior knowledge, to help a student formulate purposes for reading, and to make predictions about story content. Questions posed before reading are often crucial in determining a student's success in reading the material.

Questions used *during reading* can determine how effectively a student is comprehending the material. You can determine whether the material is appropriate and motivating for the student. Predictions made by the child at varying intervals throughout the reading can add to the student's comprehension of the remainder of the material.

Questions *after reading* have been the most common means of assessing comprehension ability in the past, and they still remain useful. You can formulate questions of various types (explained later) to evaluate a student's competency in various aspects of reading comprehension. The kind of questions asked after comprehension should help you determine the kinds of strategies the student used during the actual reading.

It may be useful at this time to think about what really constitutes a question. Most people undoubtedly believe that the *wh-type interrogative sentences* are questions: *Who,*

What, Which, When, Where, Why, and How. Linguists often add *yes-no questions* and *tag questions*, such as “My father can drive very well, don’t you think?” They also add *intonation questions*, such as “Ellie went to church?” and *cleft questions*, such as “Where was it that Ellie went?” (a question in which the latter part contains the actual question).

You should also think about some kinds of instructional directions that do not meet the grammatical test of being described as true questions. Such questions can be called *pseudoquestions*. Pseudoquestions can be thought of as “questions in disguise.” Pseudoquestions often may be used on essay examinations and may use such words as *name, discuss, describe, enumerate, list, or provide a reason*. You can understand the characteristics of pseudoquestions by examining the following true question and the pseudoquestion:

What were some of the causes of Operation Desert Storm?
Describe some of the causes of Operation Desert Storm.

It is clear that both can be called questions, although the second one does not meet the grammatical test for a true question.

Examples of Questioning Strategies for Before and During Reading

NOTE: A number of the questioning strategies described in this chapter for assessment can also be used for the *teaching or improvement of comprehension* explained in Chapter 6 of this *Handbook*.

Prereading questioning is not usually used as often or extensively as postreading questioning for the assessment of competency in reading comprehension. However, prereading questioning can be crucial to both the assessment and improvement of reading comprehension. Prereading questions can be used to activate prior knowledge and to set purposes for reading a selection.

The child’s prior knowledge must be activated (used) in order for him/her to read a selection effectively. Assessment of ability in prior knowledge enables you to know what material must be presented *before reading* to ensure the maximum amount of reading success for each child.

The following anecdote from P. David Pearson and Dale D. Johnson’s *Teaching Reading Comprehension* (New York: Holt, Rinehart and Winston, 1978, p. 192) illustrates why it is important to help a child activate his/her prior knowledge:

Recall what Charlie Brown does whenever he gets a new book. Before he even looks at the book, he counts the pages—625 pages: “I’ll never learn all that!” He is defeated before he starts, before he has had a chance to realize that he does not have to learn *all* that. It is not *all* new. He already knows something about it. He has not given himself the chance to learn what he already knows about what he is supposed to know.

Both you and the child should try to activate a student’s prior knowledge. You can do this in a number of different ways. For example, you can attempt to relate what the child is going to read to what he or she already knows by asking questions such as these from a basal reader story based on the book *Sarah, Plain and Tall* (Patricia MacLachlan):

- Have you ever read the library book *Sarah, Plain and Tall*? If you have read it, what did you think about that book?
- Did you see the Hallmark Hall of Fame Presentation of *Sarah, Plain and Tall* that starred Glenn Close as Sarah? If you did see it, perhaps you can contrast this book with that television presentation when you read it.
- Have you read other books that were set in pioneer times? What were their names and what did you like about these books?

You can also activate prior knowledge by using semantic mapping (webbing), described and illustrated in detail in Chapter 6, a film, a filmstrip, a computer simulation, pictures, a demonstration, an experiment, a television program, or many other devices. Any such activity should help a student either support or reject his/her prior knowledge about the upcoming reading selection. A number of other ways and examples of activating prior knowledge are also found in Chapter 6 of this *Handbook*.

Questions of various types presented prior to reading a selection can significantly influence the quality of a student's subsequent reading of the material. Without these questions, a number of students read any material in a meaningless manner with no purpose except reaching the end of the material. These questions can be either teacher-formulated or student-formulated. As much as possible, the prereading questions should be meaningful, important, and high-level.

Any teacher-generated question should be a model for student-developed questions for reading and learning. In addition, a purpose-setting question should address a central theme and should encourage students to think. After having some exposure to teacher-generated questions, students should be able to formulate their own questions for reading to answer. This obviously should be the ultimate goal in prereading questions.

Here are some examples of teacher-formulated questions:

- In what ways are domestic cats similar to such wild cats as tigers, leopards, panthers, and cougars?
- Compare and contrast Billy's and Marsha's feelings about camping in a tent.
- What are Mike's feelings about his parents being divorced, and how does he finally learn to deal with those feelings?
- Based upon what happens in the story, how does Amy feel about her grandfather coming to live with her family?
- What do you think may be the difficulties of trying to live in space for a long period of time?

Here are some examples of teacher prompts that may help students formulate their own questions to attempt to read to answer:

- Based upon the title of the story, find out what the story may be about.
- Read the introduction to the material and then attempt to predict the content of the material.
- Given a set of related words, predict the topic of the selection and the most important areas to be covered.
- Considering the setting and characters in the material, try to predict the major events in the story.

It is very important that students learn to return to either the teacher-generated or student-generated questions after reading the material and discuss their findings so that the purpose-setting questions remain a relevant and meaningful activity that students can understand since it improves their comprehension.

The *ReQuest Procedure* or *reciprocal questioning* is also a useful technique for assessing comprehension ability using questioning strategies during reading. Explained and illustrated in detail in Chapter 6, this procedure simply involves having both the reading teacher and the student ask each other various types of questions during the reading selection. These questions should clearly indicate to you the child's ability in both answering and formulating questions about the reading material.

Examples of Questioning Strategies for After Reading

There are several different questioning strategies that can be used after reading a selection to assess reading comprehension. One of the oldest techniques for evaluating reading comprehension is called the *retelling* or *tellback strategy*. Interestingly enough, it is considered very effective by proponents of the whole-language and of the Reading Recovery Program.

Retelling was first used in the 1920s as the only way of assessing comprehension on the first standardized reading tests. However, it fell into disuse for many years because of the difficulty of accurately evaluating children's answers on such tests. Instead, standardized tests favored the multiple-choice format to assess comprehension ability.

To use this very simple, effective technique, have the child read a passage on the instructional or independent reading level and ask: "What was this story about?" or "Can you tell me all that you remember about this material?" The child's responses can be tallied if you wish to take the time to list all of the major points in the material and then keep a record of which important points the child mentioned in the retelling. However, normally this is not necessary since you usually judge how well a child understood the material simply by listening to the retelling and viewing it as a whole.

Using questions as an assessment technique perhaps can be improved by reading these very important points written by Ronald T. Hyman. Most reading teachers consider them to be very valuable in improving their own questioning skills both for assessing and improving comprehension.

1. Let all students know that they will be called on.
2. In addition to letting all students know that they will be called on, ask students not to call out answers. Rather, make sure that a specific student is called on to answer each question.
3. Do not call on volunteers more than 10 percent to 15 percent of the time. If the reading teacher calls only on the volunteering students, he or she does not get a true picture of the number of students who do not know the answers to various questions which are asked.
4. Call on volunteers mainly for those types of questions that ask the student to give his or her own opinion.
5. Be sure that the questions are passage dependent; that is, that the child cannot answer the question unless the material has been read. Questions that are not passage dependent can mainly be answered from the child's own prior knowledge.
6. Try to ask concise questions. For example, instead of asking "Why did the United States fight in Operation Desert Storm?" a more valuable question might be "What were some of the main reasons the United States felt it was necessary to participate in Operation Desert Storm?"
7. The reading teacher should give children enough time to answer a question. Some research studies have found that many teachers give children less than five seconds in which to respond to a question. The teacher should allow a child five to ten seconds in which to respond to a question. This gives him/her thinking time. However, this is not done by most teachers at all levels of education because they don't wish to embarrass a student who may not know the answer and because many other students in the reading group or class are usually waving their hands and want to blurt out the answer. Although it is often exceedingly difficult to do, it is important for reading teachers to give students time to gather and organize their thoughts before trying to answer a question.

8. All children should be urged to answer at least some of the questions rather than allowing them to say "I don't know." Otherwise, some children may persist in simply saying "I don't know" in answer to most questions.*

Using Survey Reading or Achievement Tests to Assess Comprehension Skills

Standardized survey reading or achievement tests were explained and illustrated in detail in Chapter 2 of this *Handbook*. They were described as group-administered, norm-referenced devices that attempt to evaluate a student's overall ability in word identification skills, word meaning, and sentence or paragraph comprehension.

Therefore, it is obvious that such a test can be used to make a rough estimate of a student's competencies and weaknesses in general comprehension skills. However, you should remember that although such a test is simple to give and to score, it gives a limited indication of a child's comprehension skills and should be supplemented by other means.

Using Process-Oriented Devices to Assess Comprehension Ability

Standardized process-oriented measures of reading comprehension are among the newest types of devices for the evaluation of reading comprehension. These contemporary standardized reading tests try to reflect the latest research in reading comprehension. Such research has found that reading is an active process that involves the use of a combination of different reading skills, including knowledge about how to read and the reader's existing prior knowledge of the material to be read. Thus, reading always should involve the combination of the reader, the text, and the context of the reading material:

- The reader element includes such aspects as prior knowledge, attitudes about reading and about the topic, ability to read the text, and knowledge of strategies to enhance comprehension of the material.
- The text element includes such elements as the genre, how the author has organized the information, the difficulty of the text, and the structure of the material.
- Some common contexts involved in reading are the reader's purpose, the setting where the reading takes place, and how the reader has to show his/her comprehension of the material.

Process-oriented measures of comprehension differ from traditional standardized survey reading/achievement tests in a number of important ways.

1. Before reading the material, the student must complete a *topic familiarity (prior knowledge)* inventory of some type to make an assessment of his/her prior knowledge.
2. Then the student reads an *entire passage* instead of reading only a number of short passages as has been the traditional procedure.

*("Questioning for Improved Reading," *Educational Leadership*, vol. 39, January 1982, pp. 307-309) Reprinted with permission of the Association for Supervision and Curriculum Development. Copyright 1982 by the Association for Supervision and Curriculum Development. All rights reserved.

3. The *constructing meaning assessment* contained in this type of device typically has questions that require more than one answer. For example, some of the comprehension questions contain one answer, some have two answers, while others have three answers that are correct. Even though the child knows that a question can have more than one correct answer, he/she does not know how many correct answers any question will have.

Thus, you can see that such process-oriented measures of comprehension attempt to stress implicit (interpretive, critical, or creative) comprehension rather than only explicit (literal) comprehension which has typically been the case with survey reading/achievement tests. In addition, the long passages used in this type of test can be either narrative or expository and may contain maps, graphs, tables, charts, and diagrams as well as text.

Example of a Process-Oriented Measure of Reading Comprehension

Here is a ready-to-duplicate example of a process-oriented measure of comprehension at the intermediate-grade reading level. If it seems applicable, you can duplicate and use it in its present form. However, more important, it should serve as a model for you in constructing your own version.

The answers are given at the end of this chapter.

NOTE: Any answer that a student can defend should be considered correct for all three sections of this process-oriented measure of comprehension.

PROCESS-ORIENTED MEASURE OF READING COMPREHENSION (Intermediate-Grade Level)

Name_____ Grade_____ Teacher_____ Date_____

BEAVERS—A MARVEL OF NATURE

Topic Familiarity

This story is about some of the characteristics of beavers and how they live their lives. Think about what might be in a story like this and what kinds of things that you might learn. There may be 1, 2, or 3 correct answers for each question. Circle the word Yes or No in front of each possible answer to the question.

1. Which of these topics is likely to be in this story?
Yes No chisel-like front teeth
Yes No flat tail
Yes No feathers
Yes No seashore
Yes No fur
2. What human occupations do you think beavers have been compared to?
Yes No lumberjacks
Yes No farmers
Yes No builders
Yes No pilots
Yes No ranchers
3. Which of these animals do you think are most closely related to beavers?
Yes No rats
Yes No skunks
Yes No squirrels
Yes No seals
Yes No deer

Now read this passage about beavers to yourself.

BEAVERS—A MARVEL OF NATURE

Since I spend the summers near a lake in northern Wisconsin, I have seen beavers, beaver dams, and beaver lodges many times. I also have seen countless trees that were systematically cut down by beavers. Some beavers that built a dam in a marsh about two blocks from my house once flooded a gravel road so that my neighbors and I could not go to town for almost an entire day. However, until I recently read a book about the fascinating lives of beavers, I did not completely realize how unique these creatures are.

Since beavers usually work under cover of darkness, few people realize the remarkable physical characteristics that beavers possess that make it possible for them to be nature's leading lumberjacks and builders.

Although most people do not realize it, beavers are actually very large rodents and are related to other such rodents as mice, rats, squirrels, chipmunks, and muskrats. Although beavers are descended from a huge prehistoric rodent that stood about eight feet tall and weighed about 700 pounds, a beaver usually is about four feet long and weighs about 50 pounds. However, an exceptionally large beaver can weigh up to 100 pounds. The beaver is classified as a rodent primarily because of its teeth. It has four unusually large chestnut-colored chisel-like front teeth that are separated from the ordinary rear teeth they use for chewing food by a wide gap. The teeth in the beaver's lower jaw may be two or more inches long, while those in the upper jaw are usually at least one inch long. The two front upper teeth are used to get a firm grip, while the two front lower teeth are used for the actual gnawing. Together, a beaver's teeth can cut down a tree as thick as your thigh in about fifteen minutes.

In addition, a beaver's lips are so flexible that it can draw them together to close the gap between the gnawing teeth and the chewing teeth. Therefore, the beaver is in no danger of swallowing a mouthful of splinters, nor does it run the risk of swallowing so much water that it may drown when gnawing on wood underwater. Amazingly, a beaver can gnaw throughout its entire life, which is about ten or twelve years long, because rodents are the only animals whose teeth never stop growing. In addition, using them only sharpens the beaver's cutting teeth. When they are in use, the upper teeth constantly grind against the two lower teeth, which sharpens them so that they are like knives. All rodents also have very short tongues which makes it possible for them to avoid biting their tongue while gnawing.

Beavers—A Marvel of Nature, continued

The beaver's eyelids, too, are unique and well suited to its life in the water. For example, a beaver's eyelids are so transparent that it can close them underwater to protect its eyes but still let the beaver see clearly. Interestingly, on land these same "windowpane" eyelids are tough enough to serve as safety goggles to shield the beaver's eyes from flying splinters when it is cutting or gnawing. Furthermore, a beaver's ears always fold shut at the moment it submerges to keep its ear passages free of water. Its nostrils also are equipped with valve-like flaps of skin that close when it dives so that water cannot get into the beaver's lungs.

One characteristic that a beaver does not have in common with other rodents is its unique tail. The tail is covered with leathery scales and dotted with a few coarse hairs. It serves several very important and unique purposes. A beaver's tail serves as the signaling device both when a tree that it has cut is almost ready to come down and also when it detects an approaching enemy. In both cases the beaver slaps its tail with such force that a noise like a pistol shot will ring through the woods for a half-mile or more to warn all nearby beavers that danger threatens. In swimming, a beaver uses its broad tail as a rudder. Perhaps most interesting of all, its tail also serves as a comfortable "stool" on which the beaver can sit upright while gnawing down trees.

In addition to its many other unique characteristics, a beaver's entire breathing apparatus is a true miracle of nature. For example, a beaver has oversized lungs that allow it to stay underwater for as long as fifteen minutes. In addition, the beaver's body can absorb great amounts of carbon dioxide without being poisoned, as humans would be. When the beaver surfaces, its lungs can be filled three-quarters full of fresh air, while a human can renew only one-fourth of his/her lung contents. The beaver's heartbeat also automatically slows down so that it can stay submerged for long stretches, thus reducing the amount of oxygen it needs.

A beaver's forepaws are also unique and valuable. The five toes on each paw have long, strong claws that are ideal for digging, and the toes can pick up, carry, and manipulate almost any object that can be grasped. In fact, the forefeet almost seem to be like the hands of a human. For its size, a beaver has very large hind feet that measure up to seven inches across when the webbed toes are fully spread. Their great width gives the beaver a powerful swimming kick and also enables its hind feet to support the beaver in soft mud much as snowshoes keep a person from sinking in deep snow. In addition, the toenails on the first two toes of each hind

Beavers—A Marvel of Nature, continued

foot are split in half with narrow gaps between the halves like the gaps between the teeth of a comb. These serve as the beaver's fur-combing nails. Amazingly, the split nails on the second toe of each foot can be opened and closed like a tiny pair of pliers so that the beaver can pull out splinters if any ever get wedged between its teeth while gnawing.

Among the countless other interesting physical characteristics possessed by a beaver is its fur. Beaver fur consists of a thick mat of soft underfur about three-quarters of an inch long, and a protective outer layer of heavy coarse hairs about two-and-a-half inches in length. A beaver grooms its fur by combing it with its paws to coat the fur with a waterproof oil that is secreted by two large oil glands located under the tail. When a beaver's underfur is thoroughly waterproofed, a beaver never gets really wet to the skin. Since a beaver spends considerable time under icy water, many people have compared a beaver's oiled underfur to a suit of warm underwear or to a scuba diver's wet suit.

When you consider all of the truly remarkable physical characteristics possessed by beavers, you can understand why they have been called one of nature's most interesting creatures. However, nature seems to have overlooked one important fact in designing the physical characteristics of beavers—the fact that a beaver often must walk on land. Although a beaver's short powerful legs are well adapted for swimming and for constructing dams, lodges, and canals, they are not well suited to walking and running. Therefore, on land a beaver is as slow and awkward as it is swift in the water. Even a human, who is one of nature's slower creatures, can run a beaver down in about two or three hundred feet. This is the main reason why the beaver builds dams, lodges, and canals—so that it is well protected in the water where it is best adapted to live safely.

Constructing Meaning Questions

There may be one, two, or three correct answers for each question. Circle the word Yes or No in front of each correct answer to the question.

1. What other animals are beavers most closely related to?

- Yes No chipmunks
- Yes No deer
- Yes No muskrats
- Yes No mice
- Yes No skunks

2. Why do you think it is important for a beaver's lips to protect it from swallowing splinters?

- Yes No splinters might harm a beaver's digestive system
- Yes No a beaver probably cannot digest wood splinters well
- Yes No a beaver does not like the taste of wood
- Yes No a splinter does not taste very good to a beaver
- Yes No a beaver only enjoys eating the flesh of other animals

3. Why do you think it is important for beavers to have a short tongue?

- Yes No so that they will not injure their tongue while chewing
- Yes No a short tongue is more attractive than a long tongue
- Yes No a short tongue may attract a beaver of the opposite sex
- Yes No a short tongue is more practical for swallowing than a long tongue is
- Yes No a beaver's tongue must be red, not pink, in color

4. Why do you think it is important for beavers to have transparent eyelids to use while swimming?

- Yes No water could injure a beaver's eyes if the eyelids did not cover them
- Yes No beavers could not see while swimming otherwise
- Yes No beavers need eyelids to be attractive-looking animals
- Yes No an opaque eyelid like a human's would not enable a beaver to see while swimming
- Yes No most rodents do not have eyelids

Beavers—A Marvel of Nature, continued

5. What are some of the uses for a beaver's tail?

- Yes No it serves as a warning device for other beavers when it is slapped down
- Yes No it acts as a rudder for a beaver while swimming
- Yes No it serves as a stool while a beaver is gnawing down trees
- Yes No it is very attractive to a beaver's overall appearance
- Yes No it enables a beaver to run more quickly

6. Why do you think a beaver's heartbeat slows down automatically when it is submerged in water?

- Yes No it reduces the amount of oxygen that a beaver needs to breathe
- Yes No it slows down the rate at which a beaver's oxygen is burned
- Yes No it pushes a beaver's blood through its arteries and veins faster
- Yes No it enables a beaver to swim faster
- Yes No it enables a beaver to stay under water a shorter time than it would otherwise

7. Why do you think a beaver's front feet are often compared to the hands of a human?

- Yes No they can pick up small objects
- Yes No they can carry small objects
- Yes No they can be folded like a person's hands
- Yes No they can manipulate small objects
- Yes No a beaver can walk and run on them

8. What are some of the uses of a beaver's split rear toenails?

- Yes No they help a beaver remove splinters from between its teeth
- Yes No they are used to help a beaver groom its fur
- Yes No they help a beaver run more quickly
- Yes No they help a beaver swim more rapidly
- Yes No they add to a beaver's overall beautiful appearance

Reading Strategies

1. Pretend you will take a test on this passage in two minutes. This means you don't have the time to reread the whole passage, but you want to make sure you know how all of the parts of the passage fit together. Which of these would help

Beavers—A Marvel of Nature, continued

you understand how all the parts of the passage fit together? Circle the word Yes or No in front of each correct answer.

- Yes No rereading the parts of the passage you are not sure about
- Yes No asking yourself what the main idea of the passage is
- Yes No looking quickly through the paragraphs
- Yes No looking up the meaning of the word rodent
- Yes No rereading that part of the passage that described a beaver's transparent eyelids

2. Pretend you are talking with your classmates about this passage. One of them asks you what point the author was trying to make. Which of these would help you tell your classmates your opinion about what point the author was trying to make? Circle the word Yes or No in front of each correct answer.

- Yes No It is about how nature has enabled beavers to adapt to their environment.
- Yes No It is about how destructive beavers can be to the trees that grow near where they live.
- Yes No It is about how a beaver cannot run quickly on land because of its short, powerful legs.
- Yes No It is about how beavers are like all other rodents.
- Yes No It is about how beaver fur should not be used for coats or hats because of its importance to the environment.

Using Criterion-Referenced Tests to Assess Comprehension Skills

Criterion-referenced tests or mastery tests deal with one or several of the reading subskills and specify the point at which the student has achieved mastery of that subskill or subskills. Some examples of comprehension subskills that can be evaluated by criterion-referenced tests are: location of the directly stated or implied main idea, location of significant or irrelevant details, ability to read and carry out directions, sequential ability, knowledge of cause-effect relationships, and knowledge of comparison-contrast relationships.

These tests differ from norm-referenced tests that are designed to compare a student's performance with the performance of other children who possess similar characteristics. As stated in Chapter 2, criterion-referenced tests may be used less frequently in the future because they view reading as a composite of separate skills rather than as a global, language-based process. (This latter view of reading is perhaps best reflected in the process-oriented measure of reading comprehension which was described and illustrated in the preceding section of this chapter.)

You will find a comprehensive list and description of standardized criterion-referenced tests in Chapter 2, and you are urged to refer to this chapter if you want more information on how to use them in assessing comprehension ability.

Using Individual and Group Diagnostic Reading Tests to Assess Comprehension Skills

As you may recall, standardized individual and group diagnostic reading tests were described in detail in Chapter 2. Any standardized diagnostic reading test is either an individually administered or group-administered reading test that tries to ascertain a student's specific reading skill strengths and weaknesses in the various word-identification and comprehension skills. Sometimes it also attempts to determine a student's instructional reading level.

Since most such tests focus on a student's competencies and weaknesses in the word-identification skills, they are normally not particularly well suited to assessing a child's comprehension skills. However, the various levels of the *Stanford Diagnostic Reading Test* may be fairly well suited for this purpose. (This test is described in detail in Chapter 2.)

Using the Traditional Cloze Procedure to Assess Comprehension Ability

The traditional cloze procedure can be used as one informal way to assess a student's comprehension ability and his/her ability to read and comprehend a selected textbook. Since cloze was described and illustrated in detail in Chapter 2, it is only briefly mentioned in this chapter. However, you will find in the next section a ready-to-use example of this device at the intermediate-grade reading level.

When the cloze procedure is used to ascertain a student's ability to comprehend reading material, it should always be used as a supplementary or alternative way to determine a student's independent, instructional, or frustration reading level. Furthermore, it must be considered as only a very tentative indicator of those reading levels.

When traditional cloze is used to determine a student's approximate reading levels, you count as correct only those completed blanks that are the same in the original passage, although incorrect spelling is not penalized. The following percentages can be used in estimating a student's independent, instructional, and frustration reading levels:

- *independent reading level*—60 percent or more of the blanks completed with the exact omitted word
- *instructional reading level*—40 percent to 60 percent of the blanks completed with the exact omitted word
- *frustration reading level*—less than 40 percent of the blanks completed with the exact omitted word

For adequate comprehension, a student's reading material should be on the independent or instructional reading levels.

Example of a Traditional Cloze Procedure That Can Be Used to Assess Comprehension Ability

Here is a ready-to-duplicate example of a traditional cloze procedure that can be used to determine a student's approximate reading levels, thus enabling you to provide the child with reading material that can be comprehended with ease.

Note: Every fifth word was deleted from the passage except proper nouns or unless a deletion in that position would be unduly difficult for the child to complete. The answers are given at the end of this chapter.

TRADITIONAL CLOZE PROCEDURE

(Approximately Fifth-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

Read this passage about Judy Blume—the well-known young people’s author—to yourself. Write a word in each blank that makes sense. When you have completed the passage, reread it to be sure that it is correct.

JUDY BLUME

Almost every student in the intermediate grades has read one of Judy Blume’s books. They are considered to _____ very special because they _____ with many of the _____ that are most important _____ young people in a _____ truthful way. Many of Judy’s _____ are based upon her _____ experiences when she was _____ up as a very _____ child.

Judy was born _____ Elizabeth, New Jersey, on February 12, 1938. _____ father, who was a dentist, _____ her mother had known _____ other _____ since high school. _____ she was growing up, Judy _____ to be a timid _____ girl, but she loved _____ pretend that she was _____ famous, adventuresome person. Judy _____ extremely close to her fun-loving, warm-hearted _____ but not especially close _____ her rather reserved mother.

_____ she was growing up, Judy _____ her older brother and _____ spent several winters in Miami _____ her father stayed in New Jersey.

Judy Blume, continued

_____ she missed him, Judy _____ Florida
with its ocean _____ swim in and its
_____ sunshine. When she was _____ up, Judy
also spent summers at camp where _____ learned to
be an _____ swimmer and made many _____.
When Judy grew up, _____ wanted to write realistic
_____ for young people because _____ were no
such books _____ when she was growing
_____. She hoped that her _____ would help
young people _____ and be able to _____ the
problems that they _____. Today Judy lives in Santa
Fe, New Mexico, and receives a thousand letters a month
from her readers asking her questions they would never dare
to ask their parents.

Using the Maze Technique to Assess Comprehension Ability

The *maze technique* can be used as a supplementary or alternative way to learn more about a student's comprehension ability. Most of the students we have tutored over the years have enjoyed completing a maze technique much more than they have a traditional cloze procedure. A maze technique can be used as a supplement to the graded oral reading paragraphs of an IRI or a traditional cloze procedure.

To construct a maze technique, select a passage of approximately 150 to 180 words from a basal reader story, supplementary reading materials, a content textbook, or a tradebook on the student's approximate instructional reading level. Then modify the passage by separating it into sentences. In place of about every fifth word, provide three alternative words. One alternative should be the correct word, another should be an incorrect word that is the same part of speech, and the third should be an incorrect word that is another part of speech. Then type or print the maze technique so that it can be duplicated.

The maze technique can be given either on an individual or a group untimed basis. Since research on the maze technique is limited, the findings from this procedure should be interpreted cautiously and used only as an alternative means of evaluating a student's comprehension ability. Here is one tentative way of interpreting the results of a maze technique:

- *independent reading level*—80 percent or more of the words correct
- *instructional reading level*—60 percent to 80 percent of the words correct
- *frustration reading level*—less than 60 percent of the words correct

Interestingly enough, a number of our students have been able to obtain 100 percent correct responses on the maze technique, partly because they have found it highly motivating to complete.

An Example of a Maze Technique to Assess Comprehension Ability

Here is a ready-to-use example of a maze technique at about the fourth-grade reading level. You can use it in its present form or as a model for constructing your own maze technique.

The answers are given at the end of this chapter.

THE MAZE TECHNIQUE

(Approximately Fourth-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

Read each sentence silently. Then circle the one word in each sentence that makes that sentence correct.

THE AMAZING PELICAN

one
The pelican undoubtedly is once of the most amazing
man

always among
birds alive today. The pelican is round the most ancient of
dead amount

an alive
the bird species that is dead today, apparently first inhabiting
than always

than youth
an earth between 60,000,000 and 70,000,000 years ago.
the yellow

prairie's its
One of the pelican's most remarkable features is red bill
play's run

is
that can be as long as eighteen inches.
so

The fast jumps
An pelican also has a flexible bag of flesh that sags
Thin dressy sly

under its bill.

the an
When an pelican dives to catch the fish, it gulps the fish
ate ate

The Amazing Pelican, continued

and fold
but water into its pouch, which can stretch enormously to
ant when
fold to slips
hold up to seventeen pints of water. When the pelican sur-
happy often slowly

food, and
faces with its catch of fowl, it closes its mouth but by com-
flying, aunt

up an
pression drains water ouch of its bill to trap the fish inside.
out than

paper manly
Certainly the pelican cannot be called a beauty bird. For
paint beautiful

postman's aunt
example, a pelican's neck always is in an twisted position
paints a

pretty only
since the eighth vertebra is abnormally joined to the one in
ate of

ant pour
front and behind so that the policeman can never hold its
but pelican

nice
neck straight.
new

be bird
However, the pelican is a unique and wonderful bell
in bump

despite its appearance.

How Comprehension Skills and Basic Study Skills Are Related

Comprehension skills and the most important study skills are closely related. Many of the assessment devices mentioned in this chapter and the teaching strategies mentioned in Chapter 6 are equally applicable to comprehension skills and the basic study skills. Many comprehension skills and study skills are best reinforced using content (expository) material.

Study skills often deal with those special strategies needed for effective comprehension and retention in the content areas of literature, social studies, science, and mathematics. Each of these content areas requires a somewhat different set of assessment and teaching strategies. Concrete evidence of this statement is found both in this chapter and in Chapter 6.

Ways to Evaluate Competency in the Various Study Skills

A number of the devices that have been described earlier in this chapter for the assessment of strengths and weaknesses in reading comprehension can also be used effectively in the assessment of competencies and weaknesses in the various study skills.

For example, portions of the observational checklists included in Chapter 2 can be useful for determining strengths and weaknesses in the various study skills. Such checklists enable you to know what to observe when trying to determine a student's abilities in various study skills.

Both survey reading/achievement tests and criterion-referenced tests can also be used for this purpose. Some of the survey reading/achievement tests are more useful for this purpose than others. For example, the *Iowa Test of Basic Skills* may be especially well suited for measuring a student's abilities in the study skills. You can construct your own criterion-referenced tests to determine a student's ability in the various elements of the reading-study skills. A process-oriented measure of comprehension can also be used to ascertain competencies in the reading-study skills. For example, the *Illinois Goal Assessment Program* (IGAP) uses some expository material at the intermediate and junior high school levels.

Examples of Group Reading Inventories to Assess Ability in the Study Skills

Many students in the intermediate grades, junior high school, and secondary school have great difficulty in comprehending and studying their social studies and science textbooks. A number of them simply do not have the special vocabulary and strategies required for effective study in these difficult content areas. You can use a variation of a group reading inventory to determine whether your students have the ability to read and study a content textbook effectively. Many students need to be taught the special reading-study skills needed for successful comprehension and retention in these content areas. A group reading inventory can help you determine the special reading skills that should be presented in a content area.

There are several different versions of group reading inventories. One such variation tries to determine if a group of students can use the various aids that are contained in the chosen content textbook. This informal inventory is usually given at the beginning of a course or semester. To construct this type of inventory, make up about twenty questions on the use of textbook aids, such as the table of contents, glossary, appendices, maps, index,

boldface and italicized words, diagrams, pictures, tables, and graphs. The students then try to complete the inventory by using their textbook to answer the questions. Any textbook aids that a student does not have competency in should then be taught on a whole-class or small-group basis.

Another variation of a group reading inventory is designed to determine whether students can successfully understand and study a selected content textbook. To formulate this kind of inventory, choose a passage of about 1,000 to 2,000 words near the middle of the content textbook. The student then silently reads the passage and then answers an open-ended question such as "What was this passage about?" This open-ended question is an example of the popular retelling technique. The students then also answer some objective questions about this passage. These questions can evaluate a student's ability in reading skills such as: literal (explicit) and interpretive (implicit) comprehension, specialized vocabulary terms, main ideas, important details, irrelevant details, and applied reading.

The next type of group reading inventory is based on one specific chapter of the selected content textbook. This also is an open-book test that is given at the beginning of a class or semester. It is designed to determine whether a student possesses the reading skills required for effective comprehension and retention of content material. This type of informal reading inventory usually contains a matching vocabulary exercise that uses the most important specialized vocabulary terms included in the chapter. It also usually has literal (explicit) and interpretive (implicit) comprehension questions, applied questions, and questions about the main ideas and significant details from that content chapter. If a student does not perform well on such a test, the appropriate vocabulary terms and reading-study skills should then be presented.

The major purpose of each of these variations of the group reading inventory is to enable you to determine which important reading-study skills need to be presented to a group of students. You can find models of each of these variations of the group reading inventory in the following source:

Wilma H. Miller, *Reading Diagnosis Kit, Third Edition* (West Nyack, New York: The Center for Applied Research in Education, 1986, pp. 307–310.)

A Group Reading Inventory Model

The following is an example of a group reading inventory using textbook aids. Since it is specific to a particular junior high school science textbook, it should serve as a model for this type of inventory. Each variation of the group reading inventory should be constructed from the content textbooks that your students use.

EXAMPLE OF A GROUP READING INVENTORY ON USING TEXTBOOK AIDS (Junior High School Level)

Name_____ Grade_____ Teacher_____ Date_____

1. On what page does the chapter "Two Problems in Ecology" begin?
2. On what page does Unit 5, "The Human Body: A Study of Yourself," begin?
3. According to the glossary in this textbook, what is the definition of olfactory?
4. According to the index of this textbook, on what page does "nucleic acid" first appear?
5. According to the glossary of this textbook, what does omnivore mean?
6. What are the answers to the two questions in Figure 17-5 on page 325 of this textbook?
7. How many units does this textbook contain?
8. In what year was this textbook published?
9. What animal is pictured on page 288 of this textbook?
10. According to Figure 20-5 on page 393 of this textbook, what is a synonym for mandible?
11. According to the chart on pages 544–545 of this textbook, about how many years ago did the Cenozoic Era begin?
12. According to the index of this textbook, on what pages does the topic "nitrogen-fixing bacteria" appear?
13. According to the glossary of this textbook, what does periosteum mean?
14. According to the diagram in Figure 22-4 on page 407 of this textbook, which is the largest of the following elements of the human circulatory system: arteries, veins, or capillaries?
15. What do you think is the answer to the question in Figure 18-10 on page 347 of this textbook?

Device for Assessing Ability in a Study Skill

Here is a ready-to-use device for assessing a student's ability in locating the implied main idea in a paragraph. It is mainly designed to show you how any specific study skill can be assessed by some form of assessment device. Any such device does not require a great deal of time to construct and is useful for informally assessing a student's ability in any study skill.

ASSESSMENT DEVICE FOR LOCATING THE IMPLIED MAIN IDEA IN A PARAGRAPH (Approximately Fifth-Grade Level)

Name_____ Grade_____ Teacher_____ Date_____

Read this paragraph silently. After you have read it, put an X in front of the best statement of the implied main idea.

GORILLAS

Gorillas and people should be friends, since gorillas share many traits with humans. However, although a person cannot use his or her feet to grab things, a gorilla is able to do this very well. The gorilla has a smaller brain than does a human, but an adult gorilla is so strong that it could easily win a tug of war with six adult men. Gorillas have bigger muscles in their arms than in their legs, while humans have better developed leg muscles. In addition, gorillas have arms that are much longer than their legs, while that is not the case with humans. Although human and gorilla hands look similar, the thumb on a gorilla's hand is shorter in comparison to the rest of the fingers than is the thumb of a human hand. Under its dark hair, the skin of the gorilla is also dark.

Now put an X in front of the best statement of the implied main idea.

- ___ Gorillas and humans are similar in a number of significant ways.
- ___ There are significant differences in the physical characteristics of gorillas and people.
- ___ The hand of a gorilla is very similar to the hand of a human.

ANSWERS TO "BEAVERS—A MARVEL OF NATURE"

Topic Familiarity

1. Yes, Yes, No, No, Yes
2. Yes, No, Yes, No, No
3. Yes, No, Yes, No, No

Constructing Meaning Questions

1. Yes, No, Yes, Yes, No
2. Yes, Yes, No, No, No
3. Yes, No, No, No, No
4. Yes, Yes, No, No, No
5. Yes, Yes, Yes, No, No
6. Yes, Yes, No, No, No
7. Yes, Yes, No, Yes, No
8. Yes, Yes, No, No, No

Reading Strategies

1. Yes, Yes, Yes, No, No
2. Yes, No, No, No, No

ANSWERS TO "JUDY BLUME"

be	appeared	warm
deal	little	growing
issues	to	many
to	a	she
very	was	expert
books	father	friends
own	to	she
growing	When	books
sensitive	and	there
in	mother	available
Her	while	up
and	Although	books
each	loved	understand
When	to	solve
		faced

NOTE: If you are going to use the formula for determining *reading levels* that was mentioned previously in this chapter, you can count only the *exact word* as being correct in each case. If you want to use the cloze procedure for some other purpose, any word that makes sense in context can be considered correct.

ANSWERS TO "THE AMAZING PELICAN"

one
alive
among
the
alive
the
years
pelican's
its
as
The
flexible

sags
the
the
and
which
hold
of
surfaces
food
and
out
the

pelican
beautiful
pelican's
a
eighth
with
and
pelican
neck
is
bird

5

Ready-to-Use Strategies and Activities for Correcting Disabilities in the Word-Identification Techniques

“Learning to read” is the main emphasis in reading instruction in the primary grades, while “reading to learn” is emphasized in the intermediate grades and beyond. Therefore, it follows that a child who does not master the various word-identification techniques in the primary grades is certain to have reading disabilities of various kinds. Indeed, most of the disabled readers and learning-handicapped students we have tutored in both the primary and intermediate grades have had significant difficulties with one or more of the word-identification techniques. Several of the junior high school students my teacher-trainees have tutored still need additional instruction in the most important phonic elements, such as the short vowel sounds.

This chapter is designed to provide you with many strategies and ready-to-use activities that will help present and reinforce the word-identification techniques.

What Is Visual Perception Ability? _____

Since some students, especially some learning-handicapped students, have considerable difficulty with visual perception ability, it is important to explain exactly what elements constitute perception. Perception is the interpretation of incoming sensations by the brain, which selects, groups, organizes, and sequences them. When the eyes are stimulated, visual perception occurs. Meaningful interpretation of incoming visual sensations then leads to appropriate responses or actions. The perceptual aspects of reading are complex because the mind must act on a succession of stimuli in which both spatial and temporal patterns must be perceived.

The following terms are often used in the literature of perception and reading:

Figure-ground relationships. One unit or group of units that is perceived against a background only vaguely; for example, when reading, print is perceived clearly while the background of the printed page is seen only vaguely.

Discrimination. This is the ability to discriminate among visual stimuli. This ability normally improves with maturation. For instance, most children make the difficult discrimination between the letters *b* and *d* more easily with maturity.

Closure. The mind has a strong desire to fill in the missing parts or to perceive wholes.

Sequence. A student must understand the sequence of visual stimuli to be able to read. The child must learn the arbitrary conventions of left-to-right progression and reading from top to bottom.

Mind-Set. A student's mind-set helps him/her to anticipate what is going to occur next in reading. This mind set enables a student to make effective predictions while reading.

Here are the results of some studies on visual perception that you should consider in teaching this skill to all students, but perhaps especially to learning-handicapped students. (Eleanor J. Gibson, and Harry Levin. *The Psychology of Reading*, Cambridge, Massachusetts: MIT Press, 1975, pages 16, 195–197.)

1. Lower-case letters can be read more quickly than upper-case letters.
2. Initial letters can be perceived best visually, final letters next best, while middle letters cause the most difficulty for most students. This is one reason why initial consonants are often presented first in a beginning reading program.
3. Overall form or contour is not a very effective strategy in word perception. That is why the technique of *configuration* is not used very often.



4. Special features such as lines and curves in different positions are fairly important in word perception.

Ways to Improve Visual Perception Ability

There are a number of useful ways in which visual perception ability can be improved. They are most useful with a child who is very weak in visual perception ability but who has satisfactory visual channel. This often may be a learning-handicapped child who is functioning at the beginning or early primary-grade reading level.

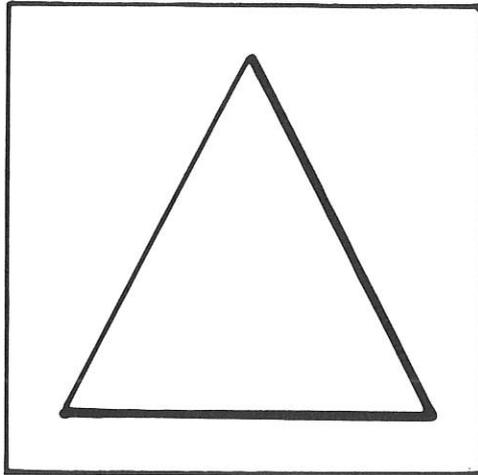
Children who would probably profit from activities to develop visual perception ability can be identified by one or several of the visual perception tests described in detail in Chapter 2 of this *Handbook*. Visual perception ability can be improved by a number of different activities, programs, and activity sheets.

The following activities can be used to improve a child's ability in visual perception. They are included in order of increasing difficulty.

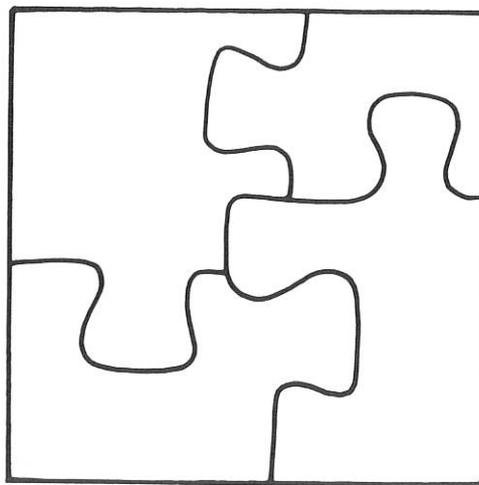
1. *Trace, copy, and reproduce* geometric forms. Although research does not conclusively show any relationship between geometric forms and reading achievement, it may be advantageous to use them with children who are very weak in visual perception ability. Use *tracing activities* with the child who has the most diffi-

culty, use *copying activities* with a child who does not have quite that much difficulty, and use *reproducing activities* with the child who has more competency in the area.

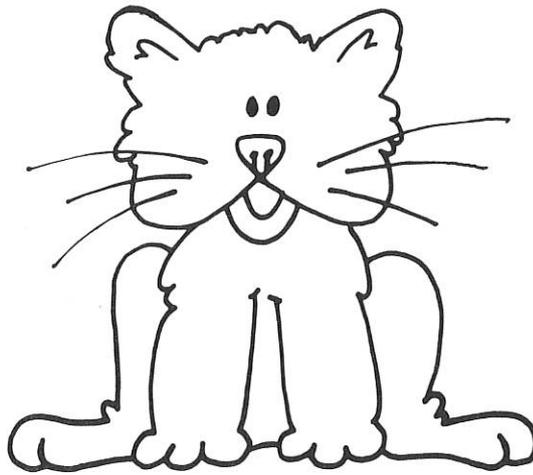
2. Use *templates* to help a child learn to draw the various geometric figures, such as the *circle*, *square*, *rectangle*, *triangle*, and *diamond*. A template can be made from cardboard, oaktag, linoleum, or plywood. Here is an example of a template for a triangle:



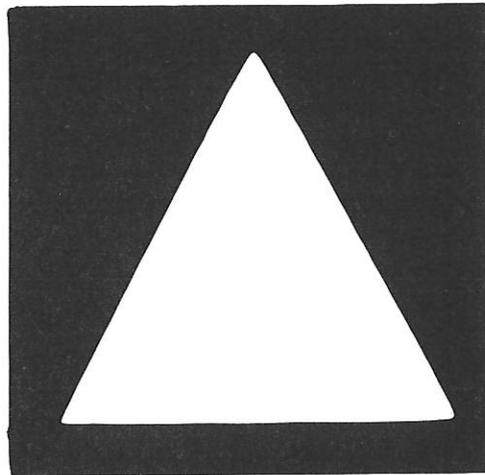
3. Assemble simple and then more difficult *jigsaw puzzles*. Teacher-trainees who have tutored kindergarten children with weak visual perception ability have constructed their own four-piece jigsaw puzzles using a picture glued to cardboard. You can also make more difficult jigsaw puzzles containing more pieces than that. You can use simple commercially available jigsaw puzzles also. Here is an example of a four-piece puzzle:



4. *Complete an incomplete picture*. Here is an example of such a picture; a cat without a tail:



5. Work with a commercially-available *pegboard*.
6. *String beads*. Many teachers have the child string beads copying a model after he/she has developed proficiency in stringing them.
7. Perform all types of *tracing*, *cutting*, and *pasting activities*. All of these types of activities improve hand-eye coordination, an important aspect of visual perception ability.
8. *Locate and trace a figure in a ground* to improve ability in figure-ground relationships.



9. Work with a *balance beam*. The child can learn to walk both forward and backward on the balance beam in a toe-to-heel position.
10. Scribble and draw on a *chalkboard*. It is extremely helpful to have a chalkboard available for children both at school and at home.
11. Play the game *Angels on the Mat*. A variation of the game "Angels in the Snow," it is played on a mat on the floor instead of in the snow.
12. Suspend and swing a *ball* at eye level. This is called a *Marsden ball*, and the

The Role of Optometric Training in the Improvement of Visual Perception

Undoubtedly, mainly due to the leadership of G. N. Getman, a nationally-known optometrist, a number of American optometrists have developed visual perception training programs. Such training programs emphasize visual training in ocular motility, binocular coordination, stereopsis, orientation to distance, and shape in space. These programs often also include perceptual-motor tasks.

Are such training programs related to improved reading performance? According to research, the answer is *no*. However, I have had a number of graduate students tell me that in their personal experience the answer is *yes*. Such programs are usually fairly expensive and time-consuming to implement since parents must practice the exercises, which are first presented by the optometrist, at home. One parent whom I had in class said that the optometric training program for her eight-year-old son had cost several thousand dollars. However, she emphatically maintained that this program had resulted in improved reading performance for her son. Did the program result in her son's better reading ability? I honestly cannot answer this question. Perhaps the individual attention which he received both from the optometrist and from her helped him improve his reading. Perhaps his self-esteem improved from the additional help, which in turn resulted in improved reading skills. I have had other parents tell me essentially the same thing about their child and optometric training to improve visual perception ability.

In summary, I cannot recommend such a training program for the improvement of reading skills. However, I admit that it might be of some use for some children in certain circumstances and cannot be completely discounted.

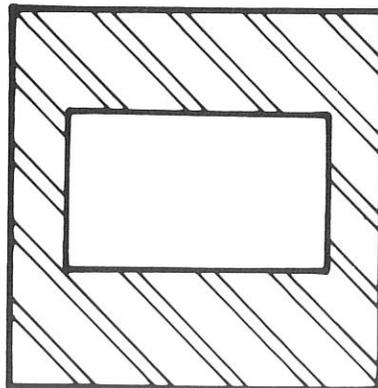
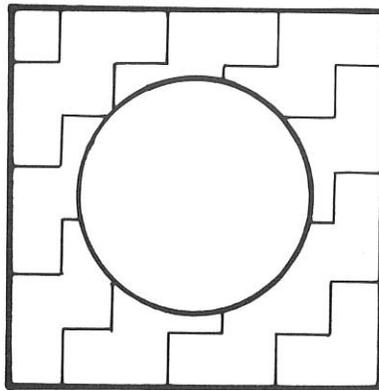
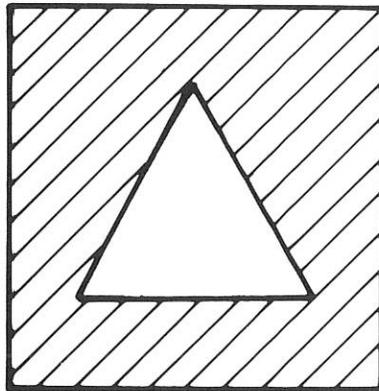
Activity Sheets for Improving Visual Perception Ability

Here are several ready-to-duplicate activity sheets that can be used to improve a child's visual perception ability. Notice that only a few items are included in each activity sheet to avoid the distractions that can be harmful to learning disabled children. They were constructed to be as useful as possible with this type of child. You can duplicate and use them in their present form. However, more important, they can serve as a model for use in constructing your own activity sheets of this type.

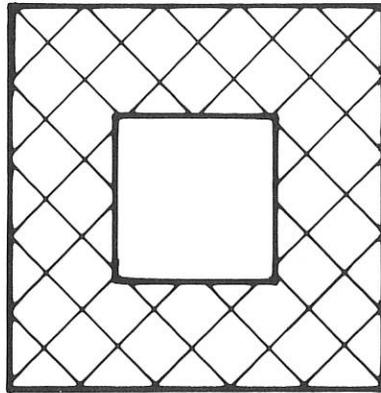
ACTIVITY SHEET #1 FOR IMPROVING ABILITY IN VISUAL PERCEPTION

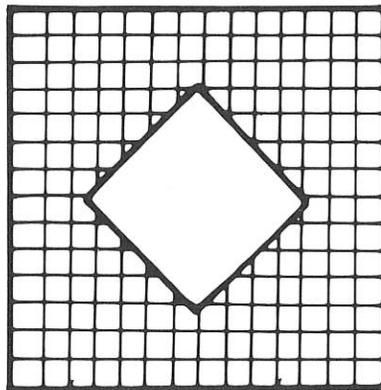
Name _____

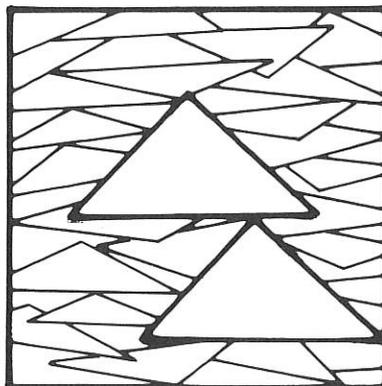
Color the design in each box.



Activity Sheet #1 for Improving Ability in Visual Perception, continued



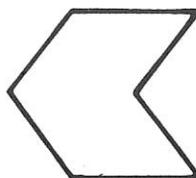
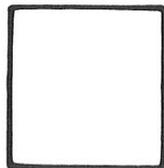




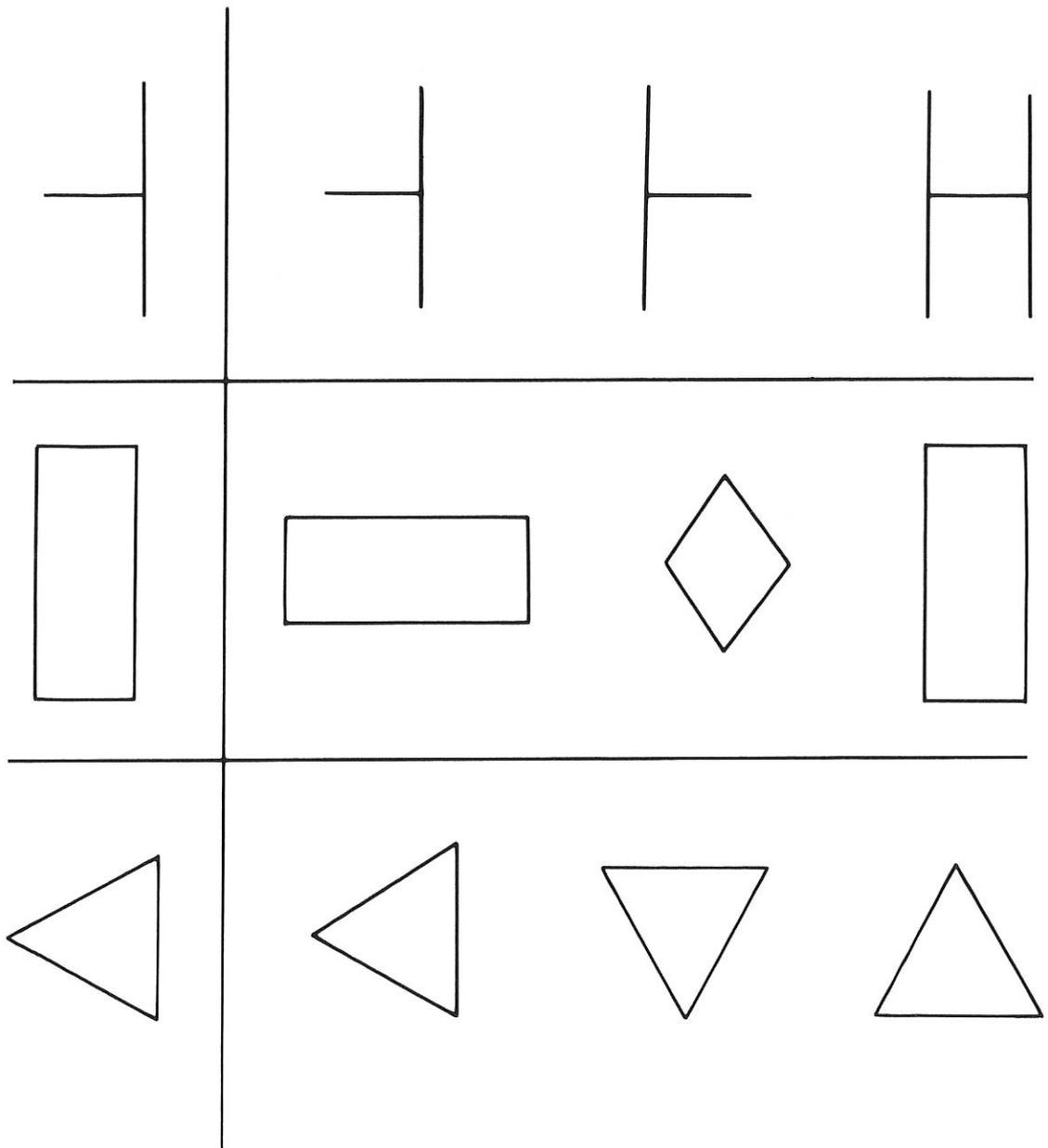
ACTIVITY SHEET #2 FOR IMPROVING ABILITY IN VISUAL PERCEPTION

Name _____

Put an X on the one that is the *same*.

Activity Sheet #2 for Improving Ability in Visual Perception, continued

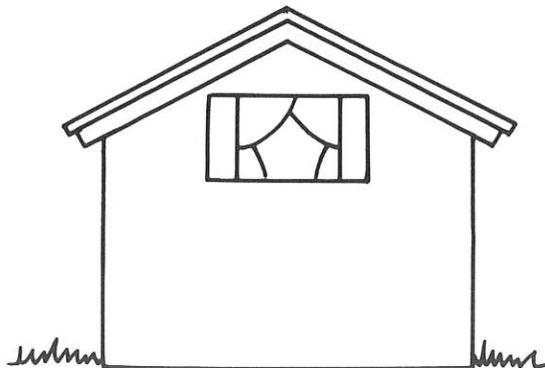
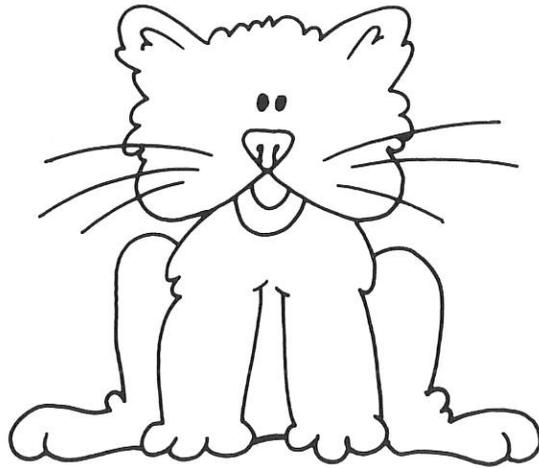


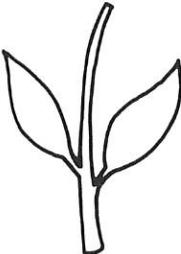
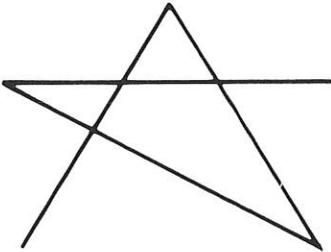
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ACTIVITY SHEET #3 FOR IMPROVING ABILITY IN VISUAL PERCEPTION

Name _____

Finish each incomplete picture.





What Is Letter Identification?

Letter identification and *letter recognition* are both important to success in beginning reading activities. Although letter recognition is easier for most children than letter identification, it also is less significant to reading achievement. For example, the following is an example of *letter recognition*:

Put an *X* on the capital *F*.

S F R E

On the other hand, this is an example of *letter identification*:

What is the name of this letter?

F

It is obvious that letter identification, not letter recognition, is required in actual reading. Therefore, although letter recognition activities may have some value as a beginning point in reading instruction, letter identification should receive the primary stress in initial reading instruction.

Although research has discovered that ability in letter identification is highly related to success in beginning reading, it is not a true prerequisite to early reading success. A number of emergent literacy activities such as reading to the child, the use of predictable books, the use of Big Books, the language-experience approach, various types of writing experiences, and the learning of environmental print can precede direct instruction in the letter names.

However, it is important for a child to learn the letter names early in the reading program for several reasons. A child needs to know the letter names in order to call them by a name in beginning reading activities. He/she cannot call a lower-case *a*, for example, a "circle and a stick." However, more important, a child who can identify the letter names probably has come from a home environment in which all reading-related activities such as reading to the child, scribbling and writing activities, and development of prior knowledge have been encouraged. In addition, the child who knows the names of the letters undoubtedly also has a good linguistic aptitude. Therefore, he/she learns both the letter names and sight words fairly easily.

A child obviously should have 100 percent competency in the knowledge of both the capital and lower-case letter names. Letter-naming is a very easy task for a child with good linguistic aptitude, and he/she seems to learn them almost effortlessly. However, it can be a very difficult task for some children, in particular with both learning-handicapped children and slow-learning children. For example, I have had teacher-trainees tutor hundreds of kindergarten children over the years. My teacher-trainees have attempted to teach their children to identify the capital and lower-case letter names. It has not been uncommon for the child to learn to identify four or fewer letter names in ten one-half hour sessions. Indeed, some children have learned only one or two letter names in ten sessions. This is the case even though the teacher-trainees have used all types of tactile activities, repetition, and overlearning.

Note: We have found that children who later were identified as learning handicapped had the greatest amount of difficulty in learning to identify the letter names.

In teaching the letter names it is important to teach *only one letter name at a time* if the child seems to have great difficulty. Tactile strategies such as the ones described in the next section of this chapter may be helpful although this is not always the case. If a child does not have a great deal of difficulty, it may be possible to teach two letter names at a

time. If this is done, select two letters that do not resemble each other. For example, teach the following two letters at the same time:

e y

Do not teach the following two letters at the same time:

e c

Research has not found any one correct sequence in which to teach the letter names. Normally, the child is taught to identify the letters in his/her own first name first. As an example:

Billy

Some teachers prefer to teach the child to identify all of the lower-case letter names first, followed by all of the upper-case letter names. Other teachers present matching capital and lower-case pairs such as the following:

M m

Some teachers present letter names in terms of their usefulness. For example, such a teacher would present the letters *s* and *t* before presenting the letters *g* and *z* since the latter two letters are not seen as frequently. One possible exception to this would be the letters *X* and *x*, which are uncommon but are often used in reading readiness workbooks and tests.

The child also should learn the differences between a *letter* and a *word*. I have asked many kindergarten children to point to a word on an experience chart, and they have pointed to a letter. They do not understand this concept unless it is explained and illustrated to them.

It is also important for the young child to use the proper terms for the letters. For example, we use the terms *capital* and *lower-case*, although the term *upper-case* may also be used. We do not allow children to use the terms *big* and *little (small)* in place of the proper terms. For example, the letters *b* and *d* could justifiably be called *big letters* because they are ascenders, although they are lower-case letters.

Many kindergartens teach the letter names in D'Nealian script because of the potential help it may give the children in making the transition to cursive handwriting later. Although I am not opposed to this type of handwriting, I prefer block handwriting because parents can teach it properly in the home, it better matches the print found in the books that the children will read, and it is generally easier for young children to learn.

In summary, identification of all the upper-case and lower-case letter names is an important task for young children to learn. It is exceedingly difficult for many learning-handicapped children, and they must have much meaningful repetition of each letter name with overlearning if they are to be successful in this very important developmental task.

Improving Letter-Naming Ability in Isolation and in Context

There are a number of different strategies and materials we have used successfully in improving both letter-recognition and letter-identification abilities. Some of these activities stress these skills in isolation, while some stress them in word or story context. We have used all of the strategies and materials with hundreds of kindergarten-aged children in tutoring sessions. Although they have all been very successful, as stated earlier, some

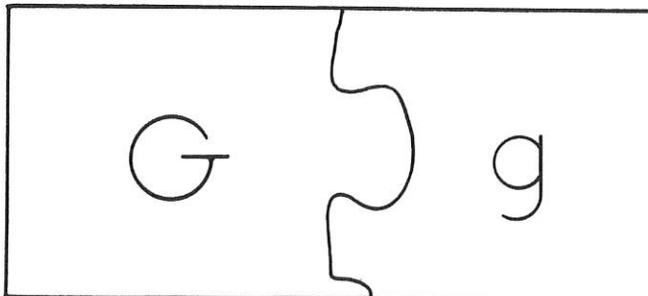
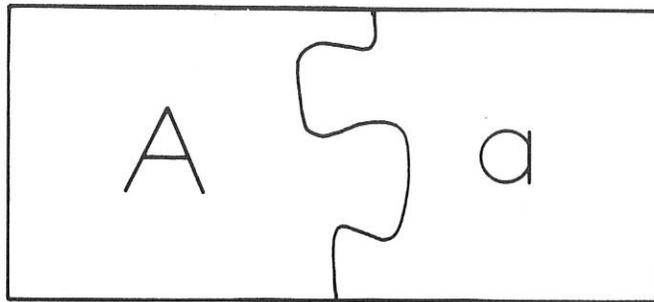
children have a great deal of difficulty with letter identification. These children require much concrete, meaningful repetition to insure that they learn all of the lower-case and upper-case letter names.

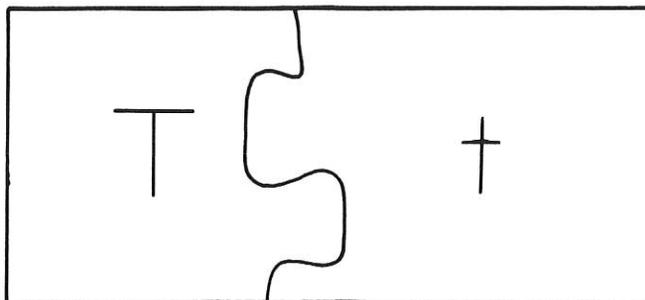
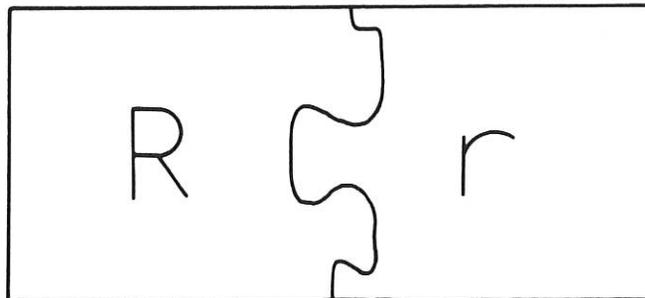
Flashcards

Flashcards can be successfully used for letter identification. Just print each capital and lower-case letter name on an individual card of tagboard about 2 inches by 2 inches with a marking pen. Then mix them up. Have the child identify each letter name as you hold it up. The child should state the letter's name and whether it is a capital or lower-case letter. You also can have the child match the capital and lower-case letters by placing them in pairs on a desk.

Puzzles

Puzzles can be used in having the child match each capital letter name with its corresponding lower-case letter name. Print each corresponding pair on a piece of tagboard about 2 inches wide by 6 inches long. Then cut apart each pair using a different type of cut. Place all of the puzzle parts into a large envelope. Have the child attempt to match each pair of letters by putting each puzzle together. As the child assembles each puzzle, have him/her give you the letter name and indicate whether it is a capital letter or a small letter. Here are several examples of such puzzles for letter matching.





Tactile Strategies

We have found that various types of tactile activities are the most successful single strategy in helping children learn letter names if this task has proven very difficult for them. Unfortunately, this also is a very time-consuming strategy. However, usually it works quite well with learning-handicapped children or slow-learning children. We have used all of the following tactile strategies with equally good success.

Colored Chalk Sand Tray. Place sand in a flat pan such as a cake pan. Grind a piece of colored chalk to make the sand more attractive. Have the child draw the target letter name in the sand, saying its name aloud as he/she does so. Have the child use the terms *capital* and *lower-case*.

Colored Chalk Salt Tray. This tactile strategy is identical to the previous one except that salt is used instead of sand. Both seems to work equally well.

Instant Pudding. This tactile strategy probably has been the most effective. Prepare a package of instant pudding and place it in a flat pan (like a cake pan). Have the child draw the target letter name in the pudding, saying its name aloud as he/she does so. Have the child use the terms *capital* or *lower-case*. The child may lick his/her fingers after each letter is made. Chocolate pudding has been the favorite, although we have also used strawberry pudding successfully.

Macaroni. Have the child glue pieces of macaroni to a large piece of tagboard in the form of a target capital or lower-case letter. After each letter is formed, the child traces over it with his/her index finger, saying the letter name aloud. Have the child use the terms *capital* or *lower-case*.

Rice. The same procedure as above can be followed with rice.

Dried Beans. The same procedure as above can be followed with dried beans.

Finger Paints. Have the child spread finger paint over a sheet of butcher (shiny) paper. Have the child draw each target letter in the finger paint, saying the letter name as he/she does. The child should indicate whether the letter is a capital or lower-case letter. I have found finger paints to be fairly messy and, therefore, prefer to use instant pudding, which is less messy, and the child can lick his/her fingers with the pudding also. However, here are two recipes for finger paints.

Finger Paint Recipe #1

1/2 cup lump starch
 1/2 cup cold water
 1-1/2 cup boiling water
 1/2 cup white soapflakes
 1 tablespoon glycerin
 food coloring

Dissolve starch in cold water. Add hot water and cook mixture until it is clear, stirring constantly. Add soapflakes and stir and remove from heat immediately. When cool, stir in glycerin and enough drops of food coloring to give the desired shades.

Finger Paint Recipe #2

1/2 cup cornstarch
 1 cup cold water
 1 envelope unflavored gelatin
 2 cups hot water
 1/2 cup mild soapflakes or detergent
 Rit® dye
 If Liquid Rit® Dye is used, increase the cornstarch to 3/4 cup.

Combine cornstarch and 3/4 cup of the cold water in a medium-sized sauce pan. Soak gelatin in remaining 1/4 cup cold water. Stir hot water into the starch mixture and cook over medium heat until the mixture comes to a boil and is smooth, stirring constantly. Remove from heat; blend in softened gelatin. Add soap or detergent and stir until thoroughly dissolved.

Divide into portions in jars or bowls. Stir in about 1 teaspoon Rit® powder or 1 tablespoon Rit® Liquid Dye for every cup of mixture.

If not used immediately, cover mixture tightly for storage. This recipe makes about 3 cups and can be multiplied.

Shaving Cream. The same procedure can be followed with shaving cream as with finger paints. However, shaving cream is less messy and probably preferable.

Hair Gel. Place some hair gel in a Zip-Loc® Freezer Bag. Spread some of the hair gel on a piece of butcher (shiny) paper. Have the child make each target letter in the hair gel,

saying the letter name as he/she does so. Have the child indicate whether it is a capital or lower-case letter.

Pipe Cleaners. Have the child bend a pipe cleaner into the shape of each target letter. Then have the child trace over the pipe cleaner, saying the letter name aloud as he/she does so. Have the child indicate whether it is a capital or lower-case letter.

Clay. Have the child form each letter out of clay saying the letter name aloud as he/she does so. Have the child indicate whether the letter is a "capital" or "lower-case" letter.

Playdough or Magic Modeling Clay. Playdough can be used in the same manner as the clay described above. It can be either commercial or homemade playdough. Here is a recipe for homemade playdough or magic modeling clay.

Playdough or Magic Modeling Clay Recipe

2 cups salt
2/3 cup water
1 cup cornstarch
1/2 cup cold water

Mix salt and 2/3 cup water in a saucepan; place pan over low heat, stirring constantly until mixture is thoroughly heated. This will take about 3 or 4 minutes.

Remove from heat. Immediately mix cornstarch and 1/2 cup cold water and add this all at once to the hot salt and water mixture. Stir quickly to combine. Mixture should thicken to about the consistency of stiff dough. If the mixture does not thicken, place the pan over low heat again and stir about 1 minute or until the mixture starts to thicken.

Turn out on board or work surface and knead as you would bread dough to form a smooth, pliable mass. It can be used immediately, and it will keep pliable indefinitely if it is stored in a tightly closed container or wrapped in plastic or foil. This recipe makes 1-3/4 pounds.

Double batch:

Double recipe ingredients. Follow the directions given except keep saucepan over heat when adding cornstarch and water to the hot salt mixture.

How to color:

Food colors or tempera paint may be added while cooking, or they may be kneaded into the pliable base. Modeled objects may be painted when hard and dry to give the surface color.

How to dry:

Objects will dry and harden at room temperature in about 36 hours, depending on the thickness. To speed drying, preheat oven to 350°. Turn oven off and place object in oven on the wire rack to allow air circulation. Leave in oven until the oven is cold. When dry, surface may be smoothed by rubbing with sandpaper.

Magnetic Letters. Commercially available magnetic letters have been very successful in teaching letter names. Have the child identify each magnetic letter or have the child trace each magnetic letter with his/her index finger, saying the letter name aloud. Have the child indicate whether it is a capital or lower-case letter.

Oobleck. Help the child make oobleck following the recipe given here.

Oobleck Recipe

6-3/4 cups water

4 boxes cornstarch

Mix the ingredients together. A half batch is usually plenty.

Then have the child draw each letter in the oobleck, which is spread on a sheet of heavy paper such as butcher paper. Read the book *Bartholemew and the Oobleck* by Dr. Seuss either before or after the oobleck is used for letter naming. This has been a very popular tactile strategy with kindergarten children.

Alphabet Pretzels (Edible). Prepare the alphabet pretzel recipe according to the directions. Have the child form each target capital or lower-case letter out of the pretzel dough, saying the letter name aloud as he/she does so. Then bake the dough letters and allow the child to eat a baked dough letter if he/she is able to say its name.

Alphabet Pretzels (Edible) Recipe

1 cup lukewarm water

1 cake active yeast

or 1 package dry yeast

4-1/2 cups all-purpose
flour

2 teaspoons sugar

3/4 teaspoon salt

1 egg yolk beaten with

1 tablespoon water

coarse salt

Preheat oven to 475°. Grease a cookie sheet. Slowly stir yeast into 1 cup lukewarm water, following package directions. Set aside.

Combine flour, sugar, and salt. Add to yeast mixture to form stiff dough. Turn dough out onto floured counter and knead 8 to 10 minutes or until it is smooth and elastic.

Oil a large bowl. Turn dough in bowl to oil both sides and then cover with clean damp cloth. Let rise in warm place until double in size.

Punch down and shape into letters. Place on cookie sheet. Baste each pretzel with egg yolk mixture. Sprinkle with salt. Let rise again until almost double.

Bake for 10 minutes or until golden brown and firm.

Letters of Dough (Inedible). Follow this recipe to make the inedible dough letters.

Letters of Dough (Inedible) Recipe

1 cup salt

2 cups flour

1 cup water

Put the ingredients in a mixing bowl. Mix together and then knead for ten minutes.

Have the child shape each target letter, saying its name as he/she does so. (We often have used the child's own first name in this tactile activity.)

Place the letters on an ungreased cookie sheet and bake 40 minutes at 325°. When the letters are cool, have the child paint them with watercolors. Bake again for 10 to 15 minutes. Varnish.

Mount on a board with white glue. Have the child trace each letter mounted on the board for additional reinforcement.

Cooking and Baking Activities

There are a number of cooking and baking activities that can be used to stress both letter identification and letter-sound relationships. Since most of these activities are highly motivating, they are also often very effective for these purposes.

Here is a sample of some of the cooking and baking activities that can be used for these purposes.

Recipes for all of the starred foods can be found in *Cook and Learn* by Bev Vietch and Thelma Harms (Menlo Park, California: Addison-Wesley, 1981).

The Letter A

applesauce*
apple salad*

The Letter B

biscuits*
bean salad*
banana bread
butter*

The Letter C

cole slaw*
cupcakes*

The Letter D

doughnuts (Have one tube-type refrigerator baking biscuit per child. Have the child gently flatten the biscuit and push his/her fingers through the center to make a hole. Heat one inch of cooking oil in an electric fry pan to hot, about 375°. Place doughnut in the oil and fry on both sides until it is golden brown. Remove the doughnut from the oil with tongs and have the child shake in a brown paper bag with powdered sugar.)

The Letter E

eggs*

The Letter F

fruit salad*
fritters*
french fries

The Letter G

grilled cheese
gingerbread man*

The Letter H

hamburgers
hush puppies*

The Letter I

ice cream*
Irish soda bread*

The Letter J

juice*
jelly beans
jam sandwich

The Letter K

kabob (Have the child thread cut pieces of fruit on a straw.)

The Letter L

latke* (potato pancake)
lasagna
lemonade*

The Letter M

meatballs
macaroni salad*
muffins*

The Letter N

navy bean soup
noodles
nachos (Place tortilla chips in a single layer on a cookie sheet. Sprinkle them with grated cheese and bake in a 400° oven until the cheese melts, usually about five minutes.)

The Letter O

oatmeal ("Three Bear's porridge")
omelet
orange juice

The Letter P

peanut butter*
popcorn
pasta
pizza*

The Letter Q

quince jelly

quesadillas

quick bread

(Any food item the child thinks would be "fit for a queen.")

The Letter R

raisins

(hot) rice salad

The Letter S

salad*

soup*

stone soup (Make stone soup as described in *Stone Soup* by Marcia Brown. New York: Charles Scribner's Sons, 1947.)

The Letter T

tacos*

tortillas*

tomato catsup*

The Letter U

upside-down cake (use a packaged mix)

The Letter V

vegetable soup*

vanilla ice cream*

The Letter W

waffles*

The Letter X

(Have the child mix fresh fruits or vegetables.)

The Letter Y

yogurt*

yogurt shake*

The Letter Z

zucchini fritters*

zucchini muffins*

Some Suggestions for Constructing Games

Here are some ideas for constructing gameboards that should save you considerable time and effort. (These suggestions are adapted with permission from *The Reading Teacher's Almanac* by Patricia Tyler Muncy; West Nyack, New York: *The Center for Applied Research in Education*, 1991, pages 5–6.)

1. Construct any gameboard omitting the words to be practiced. After the gameboard has been laminated, add the words, letters, or phonic elements to be practiced, writing them along the pathway of the gameboard using a transparency pen. When the students have played the game a number of times and no longer need to practice those words or skills, wipe off the words or elements along the pathway. Then, you can use the gameboard over and over throughout the year for many purposes.

2. To avoid smearing words written on a gameboard's laminated surface, write the words on the pathway using a permanent fine-line pen, such as a Stanford's Sharpie™ pen. Later, when you are going to put new words or phonic items on the gameboard, spray hair spray on the words and wipe them off with a soft cloth. The permanent ink is easily removed and the gameboard is ready for you to write new words.

3. Papermate Fine-Line Flair™ Pens work well for writing words on game cards. This type of ink will not bleed through to the back side of items made with lightweight materials.

4. Stanford's Sharpie™ Fine-Point Pens work well for outlining drawings on gameboards because they will not smear when you color in pictures with markers.

5. Permanent ink felt-tip markers are good for coloring in pictures on gameboards made on posterboard. It is most effective to color the picture once with the permanent markers and then go back and color them in again.

6. Watercolor felt-tip markers work the most effectively for games constructed on lightweight cardboard.

7. Crayon can be used for coloring games that are to be laminated, only if the crayon is applied lightly. Heavy application will result in melted streaks of crayon wax when the object is laminated.

8. A good set of colored pencils is helpful in constructing teacher-made games. Two excellent sets are the Prismacolor™ colored pencil set and the Venus™ colored pencil set. These brands can be purchased through school supply catalogs and through office supply stores.

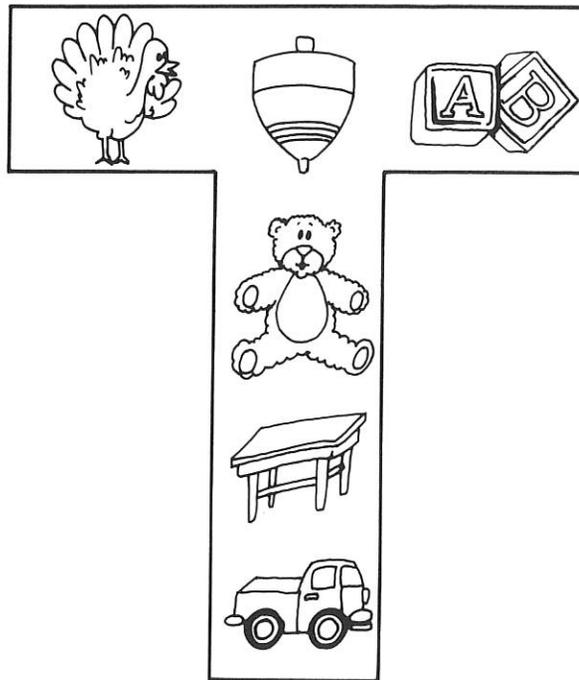
9. If you want to erase lines from posterboard games under construction, use a gum eraser as it will not leave markings.

10. Use only rubber cement for gluing things to a gameboard before laminating. When laminated, the glue marks will not show. If white school glue is used, the glue will show through when it is laminated.

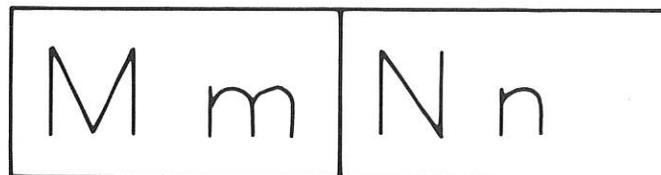
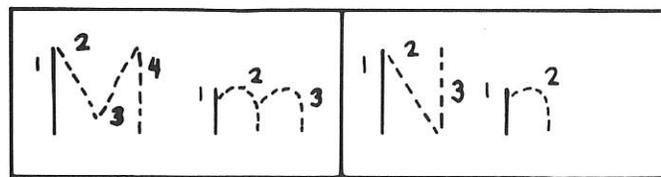
Activities and Games for Reinforcing Letter Names

There are a number of activities and games that can be used to reinforce both the recognition and identification of capital and lower-case letters. They undoubtedly are most useful with children who demonstrate difficulty in learning the letter names and need additional meaningful reinforcement to learn them.

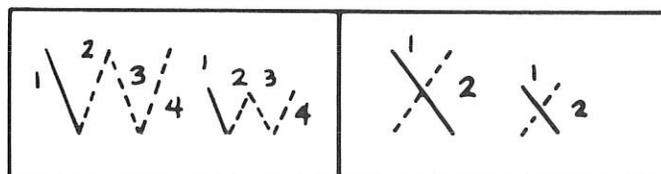
Letter Cut-Outs. Cut target capital letters out of construction paper or tagboard. Each letter should be about ten inches high. If the child is able to do so, he/she can cut the target letter himself/herself. Have the child look through old magazines to locate pictures of objects which begin with the target letter; e.g., pictures for the capital *T* might be *turkey*, *table*, *toy*, *truck*, and *teddy bear*. Have the child glue each of the pictures to the large cut-out letter. Place a string on a large cutout *T* with the glued-on pictures to make a necklace that the child can wear.

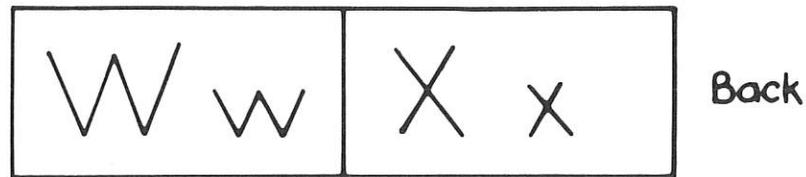


Visual Closure Cards. Cut strips from white posterboard about 5 inches by 20 inches and “start” four letters per card. Make only the first stroke. Make dots to show the remaining strokes in the following color coding: 1—green, 2—blue, 3—red, and 4—brown. Cover each card with clear self-stick vinyl. Have the child complete each incomplete letter by connecting the dots in the same color code as the writing strokes. Here are several examples of this type of visual closure activity.



Back





Stringing Letters. Obtain a box of large macaroni (ziti or rigatoni). With fine-line felt-tipped pens, write large capital and lower-case letters on the macaroni. Make five of each capital and lower-case letter. Print the consonants in black and the vowels in red. Dip the ends of pieces of heavy yarn into glue to make the letter stringing easier. When they are still somewhat wet, roll the ends of the yarn to form permanent points.

Have the child string the letters of the alphabet in correct order on the yarn—all capital letters and all lower-case letters. Have the child subsequently pair the letters and make words of the letters on various pieces of yarn.

Newspaper Letters. Provide the child with various pages of a daily newspaper in order to locate a target letter or letters. Have the child circle each letter with a felt-tipped pen. An alternative is to let the child cut out the target letter or letters and paste each letter to a sheet of paper to form a collage.

Octopus. Have the child trace a circle about six inches in circumference and then cut it out. Then have the child paste on eight round stickers around the circle. Have the child paste on eight strips to form tentacles. This requires one-to-one correspondence. Have the child glue confetti on the letter *O*. This is a very effective way in which to teach the letter *O*.

Pig. Have the child trace and cut out a large pig. Have the child then use a felt-tipped pen to write as many words as he/she can that begin with the letter *p*. The child should be allowed to use invented spelling.

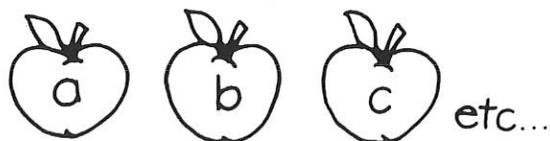
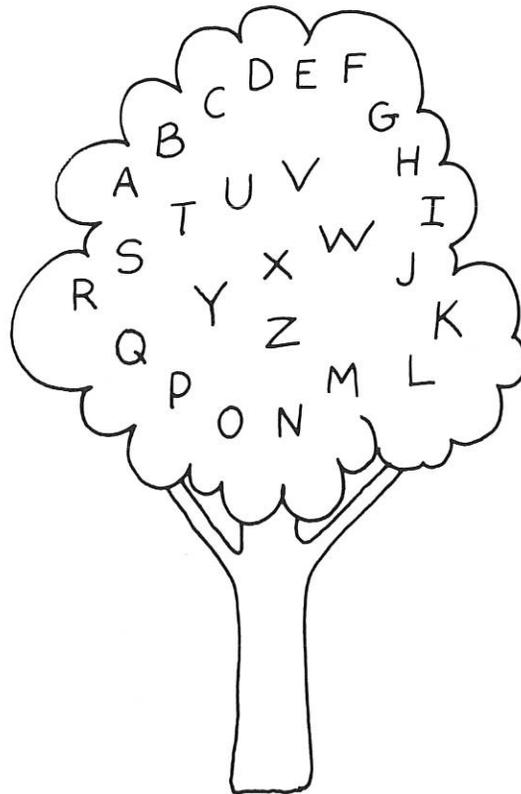
Concentration. Construct capital and lower-case letter cards out of tagboard. Make two sets of identical cards. Begin with five pairs of cards. Place the cards in two sets face down on a flat surface. Have the child turn up a card in one set and try to find the card that matches in the other set. When a match is made, have the child say the letter name and keep the card. Points or prizes can be given for the number of cards each student has.

Bang. Cover a Pringle® potato chip can with red self-stick vinyl. Attach heavy string through the plastic lid and print the letters *B A N G* on the can. Cut tagboard into cards about 1 inch by 2 inches and print the capital and lower-case letters on the cards. Print the word *BANG* on a few of the cards. Have the child take turns drawing a card and saying each letter name. If the child can correctly say the letter name, he/she can keep the letter card. If a child draws the word *BANG*, he/she must return all the cards to the can. The first child to collect ten cards is the winner of the game.

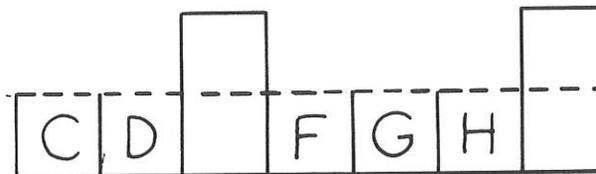
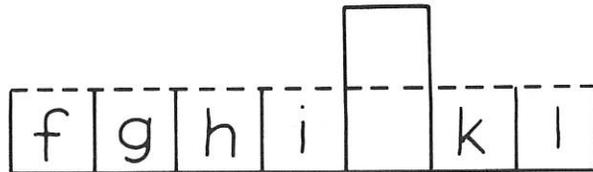
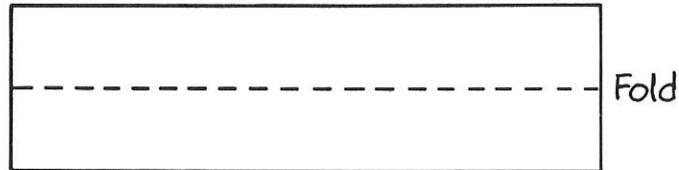
Bingo. Construct Bingo cards out of tagboard that are divided into 8 or 16 squares. Write a capital or lower-case letter in each square with a felt-tipped pen. As the caller says the letter name, have the child place markers of some type on their card. When a complete row—either horizontal, vertical, or diagonal—is covered, the child calls out “Bingo.” To win, the child must be able to repeat each letter name as he/she takes off the chips to prove that he/she has won.

Letter Card Matching Game. Make two decks of both the capital and lower-case letters on construction paper cards. The cards should be about 2½ inches by 3 inches. Make a ¼-inch border on one edge. This shows the child the bottom edge so that the letters will be placed right side up. Cover the cards with clear self-stick vinyl. The dealing deck can be red, while the drawing deck can be blue. The target letters are dealt out to two to four players from the red deck. The blue deck will be the drawing pile. Each child draws from this pile and lays the card down so that all players can see the letter. The player who has the matching letter card lays down the card, says the letter, and keeps both cards. The first child to use all the dealt cards wins if he or she has picked up the most cards.

Alphabet Apple Tree. Cut the illustrated tree design using a piece of tagboard about 15 inches by 10 inches. Print the upper-case alphabet on the tree. Then cut tagboard into small pieces about 1½ inches by 1 inch. These small pieces of tagboard can be in the shape of apples. Print the lower-case letters on the small pieces of tagboard. Put the tree on a flat surface, and have the child take the apples and match the letter on each apple with its capital letter counterpart on the tree. The teacher or another child can check the work.



What Letter Is Missing? Fold eight pieces of tagboard about 4 inches by 10 inches in order to make 2-inch by 10-inch rectangles. Using a ruler, draw a line every two inches as shown in the illustration. Copy the upper-case or lower-case letter names on the tagboard pieces in any sequence that you wish to stress. Cut out the squares that would cover the letters if folded over. On the back of the blank letter spaces copy the letter that has been omitted, so if it is folded over it will show the correct letter. Have the child take one strip at a time and look at the letters. Have the child find the missing letters from the letter cards and place them in the blank spaces. Then have the child fold over the squares to see if he/she is correct.



Matching Letter Names on Various Holiday Themes. Print upper-case and lower-case letter names on pumpkins and ghosts and have the child match each pair. You also can print the letter pairs using other holiday themes, such as: Pilgrims and Indians, presents and bows, or hearts and arrows. In each case, the child must match the upper-case and lower-case letter names.

Old Maid Letter Name Game. Print the upper-case and lower-case letter names on 2-inch by 2-inch square colored construction paper or tagboard. Make a card with an “old maid” on it. Have the children take turns picking a card and saying the letter name on it. If the child says it correctly, he/she is able to keep the card. If not, the card goes back into the pile. If the child picks the old maid card, he/she must put all of his/her cards back into the pile. The winner is the child who has the most cards.

Letter Chairs. Have children sit on chairs that are lined up behind each other. Begin at the front of the line and show a card with an upper-case or lower-case letter name printed on it. If the child can give the letter name correctly, he/she is able to stay in the chair. If a wrong answer is given, the child goes to the end of the line and all of the other children move up. Children try to stay at the front as long as they are able to be the “captain.”

Letter Name Basketball. Use a soft foam basketball and hoop. Hang the hoop at an appropriate place and height for the children. Divide the group into two teams. Hold up a flashcard with a capital or lower-case letter name on it to the first team member in Team A. If the child can correctly give the letter name, he/she is able to try to shoot a basket. If the child makes the basket, he/she earns two points for his/her team. If the basketball hits the rim of the basket, the child earns one point. This child then goes to the end of the line in his/her team. Continue this same procedure with Team B. Keep playing until all of the team members have had a chance to shoot at the basket.

Jump-Up. Put a list of capital or lower-case letters on the chalkboard or an experience chart. Prepare two cards for each letter on the board. Give each child two to four letter cards, each of which should be different. Point to one letter on the board or paper. The children with that letter card jump up and say the letter name. The child who says it first gets the other child's card. The winner is the child with the most cards at the end of the game.

Using Predictable Books and Language-Experience Stories to Improve Letter-Name Knowledge

Predictable books and language-experience stories can be used effectively both to present and to reinforce letter-naming ability. Teaching and reinforcing letter names in sentence context and story context is in keeping with the contemporary whole-language philosophy. However, it is often necessary to teach both letter recognition and letter identification in isolation as well as in context with learning-handicapped children, slow-learning children, and immature children. They seem to profit best from this type of instruction.

The next major section of this chapter, which is devoted to sight words, contains a comprehensive list of predictable books that can be used for instruction and reinforcement in both letter identification and sight-word instruction. It also contains a detailed description about how to implement the language-experience approach. This approach can be used effectively in presenting both letter identification and sight-word recognition.

Tradebooks for Teaching and Reinforcing Letter Names

Here is a brief list of tradebooks that can be read by you to present and reinforce letter names for children at the beginning stages of reading instruction. They are just illustrative of the many books that could be used for this purpose.

The Letter A

About Animals, by Richard Scarry. New York: Golden Press, 1976.

Ants, by Diana Ferguson, illustrated by Reginald Davis. New York: Wonder Books, 1977.

Apples: How They Grow, by Bruce McMillan. Boston: Houghton Mifflin, 1979.

The Letter B

Ask Mr. Bear, by Marjorie Flack. New York: Macmillan, 1932.

Benjamin's Book, by Alan Baker. New York: Lothrop, Lee and Shepard, 1982.

Teddy Bears 1 to 10, by Susanna Gretz. Chicago: Follett, 1969.

The Letter C

Carousel, by Donald Crews. New York: Greenwillow Books, 1982.

Clifford, The Small Red Puppy, by Norman Bridwell. New York: Scholastic, Inc., 1972.

Corduroy, by Don Freeman. New York: Penguin Books, 1977.

The Letter D

Dinosaur Bones, by Stan and Jan Berenstain. New York: Beginner Books, 1980.

The Dinosaur World, by Edwin H. Colbert, illustrated by George and Paul Geygan. New York: Stravon Educational Press, 1977.

Harry, the Dirty Dog, by Gene Zion, illustrated by Margaret Bloy Graham. New York: Harper & Row, 1956.

The Letter E

Eggs, illustrated by Esme Eve. New York: Wonder Books, 1971.

Little Elephant, by Arnold Lobel. New York: Scholastic, Inc., 1981.

The Little Engine that Could, by Watty Piper, illustrated by George and Doris Hauman. New York: Scholastic, Inc., 1961.

The Letter F

Frog in the Meadow, by Joanne Ryder, illustrated by Gail Owens. New York: Harper & Row, 1979.

The Foolish Frog, by Pete Seeger and Charles Seeger, illustrated by Miloslaw Jagr. New York: Macmillan, 1973.

The Story of Ferdinand, by Munro Leaf, illustrated by Robert Lawson. New York: The Viking Press, 1936.

The Letter G

The Gingerbread Man, by Ed Arno. New York: Scholastic, Inc., 1967.

Green Eggs and Ham, by Dr. Seuss. New York: Beginner Books, 1960.

In Granny's Garden, by Sarah Harrison and Mike Wilks. New York: Holt, Rinehart, and Winston, 1980.

The Letter H

How, Hippo!, by Marcia Brown. New York: Charles Scribner's Sons, 1969.

Humpty Dumpty, illustrated by Stephan Weatherhill. New York: Greenwillow Books, 1982.

The Little Red Hen, by Paul Galdone. New York: Scholastic, Inc., 1973.

The Letter I

The Indoor Noisy Book, by Margaret Wise Brown, illustrated by Leonard Weisgard. New York: W. R. Scott, 1942.

Ira Sleeps Over, by Bernard Waber. Boston: Houghton Mifflin, 1972.

Let's Look at Insects, by Deborah Manley, illustrated by Annabel Milne and Peter Stebbing. New York: Derrydale, 1977.

The Letter J

Giant Jam Sandwich, by John Vernon Lord with verses by Janet Burroway. Boston: Houghton Mifflin, 1973.

Jump Frog Jump, by Robert Kalan. New York: Greenwillow Books, 1981.

This Is the House that Jack Built, illustrated by Iris Simon. New York: Dandelion Press, 1979.

The Letter K

Katy-No-Pocket, by Emmy Payne, illustrated by H. A. Rey. New York: Scholastic, Inc., 1972.

Kenny's Crazy Kite, by Arnold Shapiro, illustrated by Karen Acost. Los Angeles: Price/Stern/Sloan, 1978.

My Kitchen, by Harlow Rockwell. New York: Greenwillow Books, 1980.

The Letter L

The Grouchy Ladybug, by Eric Carle. New York: Scholastic, Inc., 1977.

Leo the Lop, by Stephan Cosgrove, illustrated by Robin James. Bothell, Washington: Serendipity Press, 1977.

Light, by Donald Crews. New York: Greenwillow Books, 1981.

The Letter M

City Mouse—Country Mouse, illustrated by Marian Parry. New York: Scholastic, Inc., 1970.

Mouse Soup, by Arnold Lobel. New York: Harper & Row, 1977.

Tell Me a Mitzi, by Lore Segal, illustrated by Harriet Pincus. New York: Farrar, Straus, and Giroux, 1970.

The Letter N

Miss Nelson Is Missing, by Harry Allard and James Marshall. Boston: Houghton Mifflin, 1977.

Noisy Nora, by Rosemary Wells. New York: Scholastic, Inc., 1973.

There's a Nightmare in My Closet, by Mercer Mayer. New York: Dial Press, 1968.

The Letter O

Oliver, by Syd Hoff. New York: Harper & Row, 1960.

Over in the Meadow, illustrated by Paul Galdone, based on the original by Olive A. Wadsworth. Englewood Cliffs, New Jersey: Prentice-Hall, 1986.

Thy Friend, Obadiah, by Brinton Turkle. New York: The Viking Press, 1969.

The Letter P

Each Peach Pear Plum, by Janet and Allen Ahlberg. New York: Scholastic, Inc., 1978.

Pickle, Pickle, Pickle Juice, by Patty Wolcott, illustrated by Blair Dawson. New York: Scholastic, Inc., 1975.

Pig, Pig Grows Up, by David McPhail. New York: Scholastic, Inc., 1980.

The Letter Q

Q Is for Duck: An Alphabet Guessing Game, by Mary Elting and Michael Folsom, illustrated by Jack Kent. New York: Clarion Books, 1980.

The Queen Wanted to Dance, by Mercer Mayer. New York: Simon and Schuster, 1971.

Quilts in the Attic, by Robbin Fleisher, illustrated by Ati Forberg. New York: Macmillan, 1978.

The Letter R

Applebaums Have a Robot!, by Jane Thayer, illustrated by Bari Weissman. New York: William Morrow, 1980.

Little Red Riding Hood, told by Mabel Watts, illustrated by Les Gray. Racine, Wisconsin: Golden Press, 1979.

Rain Rain Rivers, by Uri Shulevitz. New York: Farrar, Straus, and Giroux, 1969.

The Letter S

My Snail, by Herbert H. Wong and Matthew F. Vessel, illustrated by Jean Day Zallinger. Reading, Massachusetts: Addison-Wesley, 1976.

The Stickleback, by Sacha van Dulm and Jan Reim. Woodbury, New York: Barron's, 1979.

Swimmy, by Leo Lionni. New York: Pantheon, 1968.

The Letter T

The Bear's Toothache, by David McPhail. New York: Penguin Books, 1972.

Tikki Tikki Tembo, retold by Arlene Mosel, illustrated by Blain Lent. New York: Scholastic, Inc., 1968.

The Truck Book, by Robert L. Wolfe. Minneapolis, Minnesota: Carolrhoda Books, 1981.

The Letter U

My Red Umbrella, by Robert Bright. New York: W. Morrow, 1959.

Umbrella, by Taro Yashima. New York: The Viking Press, 1958.

Upside-Downers, by Mitsumasa Anno. New York: Walker/Weatherhill, 1971.

The Letter V

A Day in the Life of a Veterinarian, by William Jaspersohn. Boston: Little, Brown and Company, 1978.

The Night Vegetable Eater, by Elke and Ted Musicant, illustrated by Jeni Bassett. New York: Dodd, Mead and Company, 1981.

What Can She Be? A Veterinarian, by Gloria and Esther Goldreich, photographs by Robert Ipcar. New York: Lothrop, Lee, and Shepard, 1972.

The Letter W

Where the Wild Things Are, by Maurice Sendak. New York: Harper & Row, 1963.

Whistle for Willie, by Ezra Jack Keats. New York: The Viking Press, 1964.

Willaby, by Rachel Isadora. New York: Macmillan, 1977.

The Letter X

The Box Book, by Celia Maloney, illustrated by Carolyn Bracken. Racine, Wisconsin: Golden Press, 1978.

Little Max, the Cement Mixer, by Renee Bartkowski, illustrated by Robert Doremus. Chicago: Rand McNally, 1975.

The Skeleton Inside You, by Philip Balestrino, illustrated by Don Bolognese. New York: Scholastic, Inc., 1971.

The Letter Y

Little Blue and Little Yellow: A Story for Pippo and Ann and Other Children, by Leo Lionni. New York: I. Obolensky, 1959.

What Does the Rooster Say, Yoshio?, by Edith Battles. Chicago: Albert Whitman, 1978.

Yertle the Turtle and Other Stories, by Dr. Seuss. New York: Random House, 1958.

The Letter Z

Animals in the Zoo, illustrated by Feodor Rojankonsky. New York: Alfred A. Knopf, 1962.

We Need a Bigger Zoo, by Eve Bunting, illustrated by Bob Barner. Lexington, Massachusetts: Ginn and Company, 1974.

Songs and Fingerplays for Reinforcing Letter Names

Here are some songs and fingerplays that can be used to reinforce letter names. These are just illustrative of some of the songs and fingerplays that you can use for this purpose.

The Letter A

Apples

I opened an apple and what did I see?
A little green worm, looking at me!
Apples, apples, good to eat.
Apples hide a special treat.

The Letter B

"Row, Row, Row Your Boat"

Row, row, row, your boat,
Gently down the stream.
Merrily, merrily, merrily, merrily
Life is but a dream.

Teddy Bear

Teddy bear, Teddy bear, turn around.
Teddy bear, Teddy bear, touch the ground.

Teddy bear, Teddy bear, show your shoe.
 Teddy bear, Teddy bear, that will do.
 Teddy bear, Teddy bear, go upstairs.
 Teddy bear, Teddy bear, say your prayers.
 Teddy bear, Teddy bear, turn out the light.
 Teddy bear, Teddy bear, say good-night.

The Letter C

Caterpillar

Caterpillar, caterpillar,
 Brown and furry. (*Move cupped hand up arm.*)
 Winter is coming and
 You'd better hurry! (*Move hand faster.*)
 Find a big leaf
 Under which to creep; (*Mold one hand over the other.*)
 Spin a cocoon in which to sleep. (*Put hands beside face; close eyes.*)
 Then when spring time comes,
 One fine day,
 You'll be a butterfly,
 And fly away! (*Move arms as if flying.*)

The Letter D

Six Little Ducks

Six little ducks that I once knew—
 Fat ones, skinny ones, wet ones, too.
 But the one little duck with the feather on his back
 He ruled the others with a quack, quack, quack.

The Letter E

The Elephant

The elephant has a trunk for a nose (*Pretend an arm is the elephant's trunk.*)
 And up and down is the way it goes. (*Move arm up and down.*)
 He wears such a saggy, baggy hide,
 Do you think two elephants would fit inside?

The Letter F

Put Your Finger in the Air

Put your finger in the air, in the air.
 Put your finger in the air, in the air.
 Put your finger in the air and leave it right up there.
 Put your finger in the air, in the air.

The Letter G

Gobble, Gobble, Gobble

He's big and fat and gobble, gobble, gobble.
He spreads his tail and gobble, gobble, gobble.
But when Thanksgiving Day is here
Then it's our turn to gobble, gobble, gobble.

The Letter H

Homes

Here is a house for a robin. (*Open hand.*)
Here is a hive for a bee. (*Close hand.*)
Here is a hole for a bunny. (*Make a circle with fingers.*)
Here is a home for me. (*Gesture around.*)

The Letter I

Insect Parts

Head, thorax, abdomen,
Head, thorax, abdomen,
Head, thorax, abdomen,
Two antennae and six little legs,
Head, thorax, abdomen.

The Letter J

Two Little Blackbirds

Two little blackbirds
Sitting on a hill
One named Jack,
One named Jill.
Fly away, Jack.
Fly away, Jill.
Come back, Jack.
Come back, Jill.
(*The hands should be used to show the motions of birds.*)

The Letter K

Kookaburra

Kookaburra sits on an old gum tree.
Merry, merry king of the bush is he.
Laugh, Kookaburra, laugh Kookaburra.
Gay your life must be.
(*A kookaburra is an Australian bird with a unique call that kills snakes.*)

The Letter L

Leaves

Like a leaf and a feather
In the windy weather,
We will whirl and twirl about
And then sink down together.

The Letter M

Five Little Monkeys

Five little monkeys jumping on the bed—
One fell off and bumped his head.
Went to the doctor and the doctor said,
“No more monkeys jumping on the bed.”

The Letter N

One, Two, Buckle My Shoe

One, two, buckle my shoe.
Three, four, shut the door.
Five, six, pick up sticks.
Seven, eight, lay them straight.
Nine, ten, a big fat hen.

The Letter O

Open, Shut Them

Open, shut them; open, shut them.
Give a little clap.
Open, shut them; open, shut them.
Lay them in your lap.
Creep them, creep them, creep them, creep them.
Right up to your chin.
Open wide your little mouth
But do not let them in.

The Letter P

Pancake

Mix a pancake,
Stir a pancake,
Pop it in a pan.
Fry a pancake,
Toss a pancake,
Catch it if you can.

The Letter Q

Bells are ringing, people singing, chickens clucking, ducks are ducking,
 Noises all around, but (Mr.) Q not a sound.
 Whistles wailing, wheels going, cows are mooing, trucks are moving,
 So much to be heard, but (Mr.) Q not a word.
 Rain is pouring, bodies snoring, rockets shooting, horns are tooting,
 What a noisy world, but (Mr.) Q you're so quiet.*

The Letter R*It's Raining*

It's raining, it's pouring,
 The old man is snoring.
 He went to bed and he bumped his head,
 And he couldn't get up in the morning.

The Letter S*Eensy-Weensy Spider*

The eensy-weensy spider
 Went up the water spout. (*Put index fingers to thumbs to make spider climb.*)
 Down came the rain
 And washed the spider out. (*Swish hands downward.*)
 Out came the sun
 And dried up all the rain. (*Have hands meet above head.*)
 And the eensy-weensy spider
 Went up the spout again. (*Make the spider climb up again.*)

The Letter T*I'm a Little Teapot*

I'm a little teapot
 Short and stout.
 Here is my handle. (*Crook arm and put hand on hip.*)
 Here is my spout. (*Extend the other arm out.*)
 When I get all steamed up
 Hear my shout.
 "Just tip me over
 And pour me out!" (*Bend over as if pouring.*)

*Adapted from songs on the following records: Alpha Time: *Songs of the Letter People*. New Dimensions in Education, 83 Keeler Avenue, Norwalk, Connecticut 06856. Copyright 1972 Claro Music Corporation (ASCAP).

The Letter U

Under the Spreading Chestnut Tree

Under the spreading chestnut tree (*Spread arms out; touch chest, head [nut], fingers together over head.*)

We were as happy as could be (*Hug self and rock back and forth.*)

With our banjos on our knees (*Strum banjo; slap knees.*)

Under the spreading chestnut tree. (*Repeat first step.*)

The Letter V

Going to St. Ives

As I was going to St. Ives

I met a man with seven wives.

Every wife had seven sacks,

Every sack had seven cats,

Every cat had seven kits.

Kits, cats, sacks, and wives.

How many were going to St. Ives?

The Letter W

Wee Willie Winkie

Wee Willie Winkie

Runs through the town

Upstairs and downstairs

In his nightgown.

Rapping at the window

Crying through the lock

Is everyone into bed?

It's almost eight o'clock.

The Letter X

Jack in the Box

Jack in the box (*Make a fist with the thumb on top.*)

Sits so-o-o still.

Will he come out?

Yes! He will. (*Raise thumb up quickly.*)

Jack in the box (*Reform fist with the thumb on top.*)

Sits so-o-o still,

Will he come out?

No! He won't. (*Shake head.*)

The Letter Y*Yankee Doodle*

Yankee Doodle went to town.
 Riding on his pony.
 Stuck a feather in his hat
 And called it macaroni.

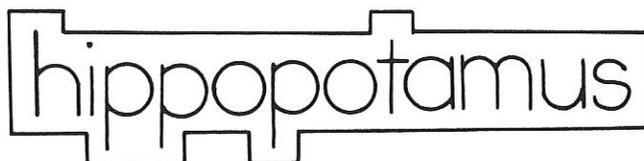
The Letter Z*The Zoo*

This is the way the elephant goes, (*Clasp hands and move arms back and forth.*)
 With curly trunk instead of nose.
 The buffalo, all shaggy and fat,
 Has two sharp horns in place of a hat. (*Point fingers out from forehead.*)
 The hippo
 Lets you see what is in. (*Open and close hands to make mouth movements.*)
 The wiggly snake upon the ground
 Crawls along without a sound. (*Weave hands back and forth.*)
 But monkey see and monkey do
 Is the funniest animal in the zoo. (*Put thumbs in ears and wiggle hands.*)

What Is Sight-Word Knowledge? _____

Sight words can be described in a number of different ways. They can be designated as those which a reader recognizes immediately upon seeing them. They are those words a reader does not have to stop and analyze by using some other word-identification technique such as phonic analysis or structural analysis. In addition, many sight words also do not have a regular sound-symbol relationship. Therefore, these kinds of words cannot be analyzed effectively but are most effectively recognized as a *total unit*. Some examples of sight words are *have, of, off, mother, through, and father*.

Sight-word recognition consists of such subskills as recognizing a word by its total unique shape, its first few letters, its special characteristics such as *ascenders (b, h, f)*, *descenders (g, p, y)*, or its length. *Configuration* or drawing a frame around the word is another subskill of sight-word recognition. Here is an example of configuration:



You should understand that some subskills of sight-word recognition may provide irrelevant or unimportant cues to word identification. One such irrelevant cue was said to be configuration. Configuration was emphasized in the past in beginning reading pro-

grams. However, reading teachers noticed that many beginning reading words had a similar configuration such as the words *son*, *man*, *run*, *van*, and *won*. Therefore, configuration received very little stress for a long time. However, it is again receiving increasing emphasis at this time. Another unimportant cue is the *double o* in the word *look* which was said to "appear as two eyes." However, a number of other words such as *book*, *cook*, *took*, and *hook* also have a *double o* in the same position. One other irrelevant cue presented in the past was the incorrect practice of having a child look for small words in a larger word. It can be seen that this technique certainly is incorrect in locating the words *fat* and *her* in the word *father*.

To be an effective reader a child must have a large stock of sight words which can be recognized instantly. Often these are the words that comprise a sight-word list (described later in this section). In addition, a number of words first decoded by using another word-identification technique, such as phonic analysis or structural analysis, should eventually become part of a child's stock of sight words. Many reading teachers believe that a child may need 120 to 140 meaningful exposures to a word before it becomes part of his/her sight-word bank. Some disabled readers or learning-handicapped students may need many more exposures than that before a sight word is recognized instantly.

Note: Some sight words can be exceedingly difficult for learning-handicapped students to learn to recognize. Therefore, such a child may need to use a unique strategy such as the tracing strategies described later in this chapter to master an especially difficult-to-learn sight word.

The most common sight words are found in a number of different sight-word lists. There is considerable overlap among all of the lists, although the words contained on the lists do vary somewhat depending upon the sources from which they were taken (children's reading or writing or a combination of both).

The most common, and a very useful, sight-word list is the *Dolch Basic Sight Word List*, which was formulated by the late Edward Dolch of the University of Illinois in 1941. Although it might seem dated, it is not; the words in it are comparable to those contained in the newer word lists. This list of 220 service words is supposed to make up about 70 percent of the words found in most first readers and about 65 percent of the words contained in many second and third readers. As is the case with all the sight-word lists, most of the words contained in the *Dolch Basic Sight Word List* are structure or function words, meaning that they have no referent. Structure or function words are normally more difficult for most children to remember than are content words which have a concrete referent. Learning-handicapped children usually find those words especially difficult to learn. Examples of structure or function words are *of*, *through*, and *should*. Examples of content words are *mother* and *tractor*.

Although my teacher-trainees have used the *Dolch* list in various tutoring situations, I could not obtain permission to reprint it in this *Handbook*. However, you may obtain it for a nominal cost from the following source:

Garrard Publishing Company
1607 North Market Street
Champaign, IL 61820

Here is a way to determine a child's approximate instructional reading level (explained and illustrated in detail in Chapter 3) determined by their performance on the *Dolch Basic Sight Word List*. (See Maude McBroom, Julia Sparrow, and Catherine Eckstein, *Scale for Determining a Child's Reader Level*. Iowa City, Iowa: Bureau of Publications, Extension Service, University of Iowa, 1944, p. 11.

<i>Words Recognized</i>	<i>Reading Level</i>
0–75	Preprimer
76–120	Primer
121–170	First Reader
171–210	Second Reader
Above 210	Third Reader or above

Edward B. Fry, Professor Emeritus of Rutgers University, has compiled an updated version of the *Instant Word List*, which he first compiled in 1957. This word list was revised in 1980 based on a modification of the Carroll (American Heritage) data. The first one-hundred words make up half of all written material, and the three-hundred words together comprise 65 percent of all written materials. Fry has graciously given all textbook authors permission to reprint his revised *Instant Words* in the hope that this word list will aid in the improvement of reading instruction. Here is a copy of *Fry's Instant Word List*:

The Instant Words

FIRST HUNDRED

<i>Words 1–25</i>	<i>Words 26–50</i>	<i>Words 51–75</i>	<i>Words 76–100</i>
the	or	will	number
of	one	up	no
and	had	other	way
a	by	about	could
to	word	out	people
in	but	many	my
is	not	then	than
you	what	them	first
that	all	these	water
it	were	so	been
he	we	some	call
was	when	her	who
for	your	would	oil
on	can	make	its
are	said	like	now
as	there	him	find
with	use	into	long
his	an	time	down
they	each	has	day
I	which	look	did
be	do	more	get
this	how	write	made
have	their	go	may
from	if	see	part

Common suffixes: -s, -ing, -ed, -er, -ly, -est

If you want more than the three-hundred sight words, the following is a list of three-thousand sight words:
Elizabeth Sakiey and Edward B. Fry, *300 Instant Words*. Providence, Rhode Island: Jamestown Publishers, 1984.

SECOND HUNDRED

<i>Words</i> <i>101–125</i>	<i>Words</i> <i>126–150</i>	<i>Words</i> <i>151–175</i>	<i>Words</i> <i>176–200</i>
over	say	set	try
new	great	put	kind
sound	where	end	hand
take	help	does	picture
only	through	another	again
little	much	well	change
work	before	large	off
know	line	must	play
place	right	big	spell
year	too	even	air
live	mean	such	away
me	old	because	animal
back	any	turn	house
give	same	here	point
most	tell	why	page
very	boy	ask	letter
after	follow	went	mother
thing	came	men	answer
our	want	read	found
just	show	need	study
name	also	land	still
good	around	different	learn
sentence	form	home	should
man	three	us	America
think	small	move	world

Common suffixes: -s, -ing, -er, -ly, -est

THIRD HUNDRED

<i>Words</i> 201–225	<i>Words</i> 226–250	<i>Words</i> 251–275	<i>Words</i> 276–300
high	saw	important	miss
every	left	until	idea
near	don't	children	enough
add	few	side	eat
food	while	feet	face
between	along	car	watch
own	might	mile	far
below	chose	night	Indian
country	something	walk	really
plant	seem	white	almost
last	next	sea	let
school	hard	began	above
father	open	grow	girl
keep	example	took	sometimes
tree	begin	river	mountain
never	life	four	cut
start	always	carry	young
city	those	state	talk
earth	both	once	soon
eye	paper	book	list
light	together	hear	song
thought	got	stop	being
head	group	without	leave
under	often	second	family
story	run	late	it's

Common suffixes: -s, -ing, -er, -ly, -est

Presenting and/or Reinforcing the Words in a Sight-Word List or in a Basal Reader in Isolation

There are a number of different strategies, materials, and games we have used very effectively in improving the sight-word knowledge of hundreds of students. Although all of the strategies have been successful with different types of children, as stated earlier some children have extreme difficulty with retaining the sight words presented to them. Such children often are learning-handicapped children. These children require much concrete, meaningful, interesting repetition to insure that they master all of the important sight words in a word list or in the basal readers they are required to read.

A Special Statement for Teachers of Learning-Handicapped Students. Here are some unique considerations you should consider carefully in presenting and/or reinforcing sight words to learning-handicapped children:

- *Tracing or kinesthetic strategies* may be helpful in helping this kind of child learn difficult-to-retain sight words.
- *Overlearning with much concrete, meaningful repetition* is especially important to help this kind of child learn difficult-to-retain sight words.
- *Comparison with previously learned words* can also help this type of child to retain difficult sight words.
- *Avoid distractions on activity sheets* for these children. An activity sheet should focus on only one concept at a time.

Tracing or Kinesthetic Strategies

Many of the tracing or kinesthetic strategies described in detail for helping children to remember difficult-to-retain letter names are equally applicable in helping a child retain difficult sight words. These tracing strategies are generally most effective with learning-handicapped children or severely disabled readers. These are children who often cannot seem to remember sight words that are taught by a conventional method. Since tracing is very time consuming, it should only be used with sight words that seem especially difficult for a child. For the same reason, tracing only should be used as long as absolutely necessary.

The following are some tracing strategies which were described earlier in the chapter that can be used in helping children to remember difficult sight words:

- Colored chalk sand tray
- Colored chalk salt tray
- Instant pudding
- Finger paints
- Shaving cream
- Oobleck

In each case, the child should print the target sight word in the material, saying it aloud as he/she forms it. Have the child trace the sight word in the material as many times as necessary to retain the word. Have the child also use the word in a sentence.

- Macaroni
- Rice
- Dried beans
- Cheerios™
- Pipe Cleaners

In each case, have the child glue the material to a piece of tagboard. Then have the child trace the sight word, saying it aloud. Have the child trace the word enough times to insure that he/she has mastered it. Then have the child use the word in a sentence.

- Clay
- Playdough
- Magic modeling clay
- Alphabet pretzels (edible)
- Letters of dough (inedible)

In each case, have the child form the target sight word out of the material. Have the child trace the word sufficient times to insure mastery. Have the child use each sight word in a sentence.

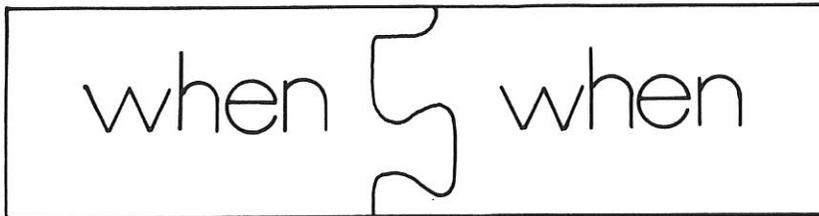
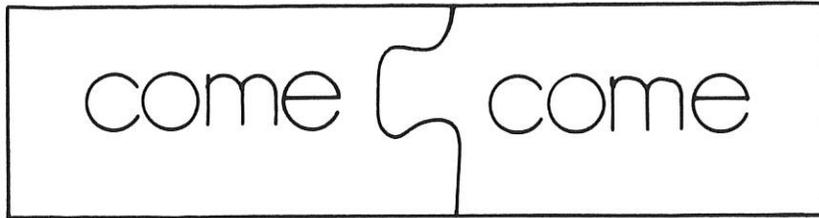
- *Magnetic Letters*—As described earlier in the chapter, the child should form each target sight word out of the commercially available magnetic letters, saying the sight word aloud as he/she does so. Each sight word should be used in a sentence. The child can also form an entire sentence using magnetic letters. This type of activity is used in the contemporary Reading Recovery Program, an early intervention program for at-risk readers in first grade which is described later in this chapter.

Flashcards

Flashcards are a traditional, but still useful, way of improving a child's ability in sight-word recognition. Simply print, or have the child print, the target sight words on small flashcards constructed out of tagboard. You can also use words from the child's language-experience stories. All of the target words can serve as the child's *word bank*. (See the section later in this chapter on the language-experience approach.) Have the child review the target sight words individually or with a partner to attain immediate recognition. The flashcards can also be used in some of the games included later in this section.

Word Puzzles

Word puzzles can be used to have the child match difficult-to-retain sight words. Print each pair of sight words on a piece of tagboard about 2 inches wide by 8 inches long. Then cut apart each pair using a different type of cut. Place all of the puzzle parts into a large envelope. Have the child attempt to match each pair of sight words by putting each puzzle together. As the child assembles each puzzle, have him/her say the sight word and use it in a sentence. Here are a few examples of such puzzles for sight word matching.



Activity Sheets for Improving Sight-Word Knowledge

Here are ready-to-duplicate activity sheets and word searches you can use to reinforce sight-word knowledge. You can duplicate and use any of these reproducible examples or use them as models for constructing your own materials. The answers are given at the end of the chapter.

Note: If you are going to use any of the activity sheets included in this section with a *learning-handicapped child*, you may want to include only a few examples of each activity on a page to make it easier for him/her.

**ACTIVITY SHEET FOR LEARNING
DIFFICULT SIGHT WORDS
USING VISUAL AND KINESTHETIC SKILLS
(First-Grade Level)**

Name_____ Grade_____ Teacher_____ Date_____

Look at each of the words on this sheet. Fill in each missing letter. Then write the word. The first word has been done for you.

one

they

one

th y

one

t ey

one

the

one

 ey

have

word

h ve

w rd

ha e

wo d

 ave

 ord

h e

w d

Sheet for Difficult Sight Words Using Visual and Kinesthetic Skills, continued

were

many

w_re

m_ny

we_e

ma_y

wer_

_any

w__e

m__y

about

then

ab_ut

th_n

a_out

t_en

abou_

the_

ab__t

__en

been

could

_een

c_uld

b_en

_ould

bee_

cou_d

b__n

c__ld

ACTIVITY SHEET FOR LOCATING AND WRITING DIFFICULT SIGHT WORDS

(First-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

Look at the word on each line. Then put a circle around each letter after it to make the word. Then write the word on the line. The first one is done for you.

1. the

r (t) o a (h) p (e)

the

2. your

y x v o u s r

3. do

r x a d u o t

4. of

o c q f r z p

5. some

s o a b m t e

6. who

f w t h t o s

7. are

a c r y p s e

8. said

s e a o i d q

9. now

i n o m y w b

10. first

f i a r s m t

ACTIVITY SHEET FOR LOCATING HIDDEN SIGHT WORDS

(Second-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

In each line first look at the word on the left. Then try to find this word wherever it is hidden on the same line. Circle each of the hidden words. The first line is done for you.

- | | | | | |
|------------|-------------------|-----------|-----------------|-----------------|
| 1. know | bt know rs | vriwot | know ert | fap know |
| 2. great | greatsmk | thgreato | ygreat | nggreati |
| 3. also | poalso | uioalso | alsoo | walsoy |
| 4. through | rthroughp | througher | bethrough | knthrough |
| 5. does | frdoes | doesnw | fedoes | atdoes |
| 6. read | rreader | yiread | readpt | creadi |
| 7. turn | turnce | wereturn | freturnd | returnop |
| 8. learn | learnny | blearnn | learnhr | telearn |
| 9. high | alhigh | highins | prhigh | highmas |
| 10. boy | boyeve | reboy | boysrt | olboy |

Activity Sheet for Locating Hidden Sight Words, continued

11. point	rpoints	pointes	fpointed	sepoint
12. found	wfounds	refounds	wufound	msfoundr
13. air	reair	sairs	airmas	alair
14. why	rewhy	whyer	whybras	fxwhyqr
15. form	airform	tuforms	preformxt	torform
16. again	againer	reagain	saragain	againop
17. page	pagers	fixpage	pagewer	pagedbit
18. move	movein	dismove	moveof	movegno
19. enough	menoughm	nevenough	emough	alenough
20. who	rfew	tawho	whoers	waoudh

SIGHT-WORD SEARCH

(Third-Grade Level)

Name _____ Grade _____ Teacher _____ Date _____

There are 8 words hidden in this puzzle. The words go across, down, backwards, and upside down. Circle all the words that you can find in this puzzle.

w r p o t f t y s u l m i p q
z p p q l r i v e r m o y s v
r m o u v p y z z i f f t c a
t r e a l s m i j k f c o r y
c c b d r y x x l p g n u o y
b c e r y o e q g r s u m n p
b o d y h q w x i p r t u v z
a c r y f g c r a g n o s q t
l i p q v w x z y m p u y s m
e c o l o r m y f g p l s t f
r e f m i g h t q c b l e f v
c x f l j k r s i j l p e x r
e i x r j p u z p u r o y b c
m n r d o z b e o u c y e g j
r z l w v x b p g q h o y r e
j y a j w l b o c f w r g i m

Hidden Words

example
river
young
real

body
song
color
might