Spring 1982

Reading Horizons
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Subscriptions are available at $10.00 yearly, $12.00 in Canada, and $14.00 overseas. Checks should be made payable to READING HORIZONS. Number 1 issue of each volume is published in October. Rates are determined according to costs and may be changed.

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READING HORIZONS (ISSN 0034-0502) is indexed or abstracted by Current Index to Journals in Education, Chicorel Abstracts to Reading and Learning Disabilities, Council of Abstracting Services, and Reading Disability Digest.
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<td>Address: ___________________________________</td>
<td></td>
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<tr>
<td>City____________________ State________________ Zip _______</td>
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</table>
AN ANALYSIS OF PUBLISHED INFORMAL READING INVENTORIES

Larry A. Harris and Jerome A. Niles

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, VIRGINIA

The informal reading inventory (IRI) is a diagnostic instrument teachers have used for decades. Consisting of passages that are graded according to difficulty level, the IRI is commonly used to assist the teacher in determining what level of material a child can read on a regular basis. The IRI also provides the teacher with an opportunity to examine the strategies a child employs when interacting with text. The actual use and subsequent value of information gathered with an IRI is greatly dependent upon the teacher and his/her insights in diagnosis.

While considerable variation exists concerning how the IRI is administered, scored and interpreted, the passages are typically read aloud at sight (i.e., without rehearsal) while the teacher notes deviations from the text (mispronunciations, repetitions, omissions, etc.). Comprehension is checked after reading by asking questions that the child answers orally. The child continues on to more difficult levels until performance drops below acceptable levels on word recognition accuracy, or comprehension, or both. A silent reading measure may be secured in a similar manner.

At one time most IRIs were teacher-made instruments consisting of passages drawn from the instructional material actually used for instruction. Today a trend is evident in the production and marketing of IRIs by publishers. To be sure, commercially prepared IRIs such as those by Gray (1963, 1967) and Gilmore (1952, 1968) have been around for many years. However, new IRIs by Burns and Roe (1980), Edwall (1979), Johns (1981), Silvaroli (1976), Woods and Moe (1981) and others constitute a trend toward the ready accessibility of commercially published testing packages.

Believing that IRIs have genuine value in a comprehensive diagnostic program if used properly, we decided it would be useful to examine a number of the commercially prepared IRIs currently available for the purpose of comparing them and describing their unique features for teachers.

Advantages of Commercially Prepared IRIs

In view of the growing demands on the teacher in our complex world, the greatest advantage of commercially prepared IRIs is their ready availability. Publishers typically do not produce materials without some confidence that a market exists for each item. The recent spurt of IRI production seems to indicate that teachers buy them. Conversations with some of the teachers lead us to conclude that the modest price (usually between $3.95 - $7.95) is an inducement to buy a ready-made IRI. Many hours previously spent selecting appropriate passages, calculating readability levels
writing comprehension questions, typing ditto masters, and hurrying to staple copies of the home-made IRI can be saved by simply buying the Johns Inventory for example, or one of its cousins.

A second advantage of commercial IRIs relates to the attention that has gone into their development. That is to say, the author of such an IRI (presumably) takes pains to select passages that are self-contained (intact), of high interest to children, and are written at a particular difficulty level. Any teacher might do the same in constructing an IRI, but a reading specialist who is hoping to sell his/her instrument can take the time to attend to these details. In fact, one who develops an IRI for commercial purposes might be expected to try the instrument with a sample of children, and revise and improve it on the basis of feedback. We will see later which IRIs meet this fundamental expectation.

Yet another advantage of commercial IRIs lies in the instructions provided by the author for administering and interpreting the child's performance. Particularly, in the light of increasing knowledge about the nature of the reading process and the importance of various types of oral reading miscues (Weber, 1970; Goodman, 1969; and Beebe, 1980) the modern IRI can be expected to provide guidance in how to score and interpret pupil performance. Simple quantitative assessment involving the mechanical tabulation of errors for the purpose of determining the child's "reading level" should be discouraged by the manual accompanying the commercial IRI in favor of a combined quantitative/qualitative assessment that helps the teacher examine patterns of miscues that reveal the strategies used by the child in finding meaning. One need not be a devotee of full scale miscue analysis as in the Reading Miscue Inventory (Goodman and Burke, 1972) to recognize the need for an IRI manual to go beyond simple error counts in scoring pupil performance.

Finally, a major advantage of commercial IRIs is found in the availability of more than one form of the test. Again, because of time pressures, the teacher will find it difficult to develop several forms of an IRI. Many commercial IRIs now include three separate forms thus enabling the teacher to check progress over time or retest with another form immediately, should it be required, or to test silent and oral reading plus listening.

Disadvantages of Commercial IRIs

The greatest disadvantage of a commercially prepared IRI lies in the fact that the passages used do not match directly with the material being used for instruction. As a consequence the difficulty levels indicated for each passage are not likely to match the grade level designations given for the textbooks available in the classroom. The child who reaches a "4.0" instructional level on the Silvaroli Inventory, for example, may or may not be able to handle the 4.0 level book in Houghton Mifflin's reading program. The effective teacher will need and want to determine how the grade level score achieved by a child on the IRI relates to the materials used for instruction.

Various other limitations of the commercial IRI might be mentioned, but it is only fair to point out that all IRIs are subject to the same criticisms regardless of who prepares them. For
example, passages are often too short to give the reader a chance to demonstrate his reading ability under more realistic sustained reading conditions. Comprehension questions are often ones that can be answered on the basis of prior knowledge or, conversely, the topics are unknown and totally unfamiliar to the reader. In addition, to have an adequate number of questions on a passage, items often focus on detail and recall of fact.

Differences Among IRIs

General agreement on the value and usefulness of the IRI seems to exist in the professional literature. No less than eleven articles in The Reading Teacher dealt with the nature and use of IRIs from 1976 to 1980 (Volumes 30-33). However, differences of opinion can be found on many issues related to the IRI. For example, these questions are subject to debate:

1. Should passages be read aloud or silently?
2. Should comprehension be checked by free recall or through question asking?
3. Should questions be answered with or without the opportunity to consult the passage?
4. What breaks in fluency or mispronunciations should be counted as errors?
5. Is repetition (repeating the same word or phrase) an error?
6. Should errors that are corrected spontaneously by the child be counted?
7. What level of word recognition accuracy indicates satisfactory performance (e.g., 50%, 75%, 90%)?
8. What level of comprehension indicates satisfactory performance (e.g., 50%, 75%, 90%)?

The list could go on, but the point should be clear: the popular IRI is widely accepted as a useful tool for making instructional decisions, but agreement on many specifics is lacking.

This lack of agreement is particularly notable among the host of commercially prepared IRIs now available to teachers. One purpose of this paper is to describe some of the available IRIs and to compare them on features that are basic to their use and interpretation. The IRIs in our analysis include:

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Date</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burns, Paul C. and Roe, Betty D.</td>
<td>Informal Reading Inventory</td>
<td>1980</td>
<td>Rand McNally</td>
</tr>
<tr>
<td>Ekwall, Eldon E.</td>
<td>Ekwall Reading Inventory</td>
<td>1979</td>
<td>Allyn &amp; Bacon</td>
</tr>
<tr>
<td>Fry, Edward</td>
<td>Oral Reading Criterion Test</td>
<td>1971</td>
<td>Jamestown Publishers</td>
</tr>
<tr>
<td>Gilmore, John V. &amp; Gilmore, Eunice C.</td>
<td>Gilmore Oral Reading Test</td>
<td>1968</td>
<td>Harcourt, Brace &amp; World</td>
</tr>
</tbody>
</table>
The above list includes the commercially prepared IRIs accessible to us. Other inventories no doubt exist. Their omission was not deliberate nor does it imply that they were rejected. In fact, we suggest you examine other IRIs which may interest you, including ones you have developed yourself and make the same comparisons undertaken here.

In describing and comparing the commercial IRIs four major areas were considered: 1) stated purpose(s), 2) format, 3) scoring procedures and criteria employed, and 4) instructions for interpretation and use of the results.

Stated Purpose(s) of Commercial IRIs

As indicated earlier, IRIs have traditionally been used to determine what level of material a child can read comfortably. This determination is usually made on the basis of accuracy in word pronunciation and question answering. IRIs are also sometimes touted as diagnostic tools. When this is done, some classification of errors is undertaken in the interest of identifying patterns that may be indicative of a child's strengths and weaknesses. Finally, some IRIs suggest that a child's "capacity" may be estimated by comparing listening comprehension to reading comprehension.

Table 1 summarizes our findings with respect to the purpose identified by the inventory authors for their IRI. Interestingly, the two oldest inventories examined (Gilmore & Gray) are presented narrowly as tests of oral reading performance only. The test authors are careful not to suggest that oral reading performance reflects silent reading performance accurately. This fundamental issue is not addressed by the authors of the other IRIs who either imply or state explicitly that oral reading is a "window" permitting examination of an otherwise inaccessible process (silent reading).

The remaining IRIs are described as being intended to aid a teacher in determining the child's level(s) of reading. Six inventories (Burns & Roe, Johns, Rinsky & DeFossard, Silvaroli, Spache, and Woods & Moe) are described as having diagnostic value as well.
Table 1

<table>
<thead>
<tr>
<th>Stated Purpose(s) of IRIs</th>
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<tbody>
<tr>
<td>Determine Reading Strengths</td>
</tr>
<tr>
<td>Levels and Weaknesses</td>
</tr>
<tr>
<td>a. Provide grade equivalent score</td>
</tr>
<tr>
<td>c. Accuracy in oral reading, comprehension, and rate of reading</td>
</tr>
<tr>
<td>e. Interpret whether comprehension goes beyond literal recall</td>
</tr>
<tr>
<td>g. Level of word recognition</td>
</tr>
</tbody>
</table>

Format and Content of Commercial IRIs

The IRIs were compared on eight features. These include:

1) number of forms of the inventory, 2) the difficulty levels of the passages, 3) the length of the passages, 4) nature of passage content (i.e., narrative and/or expository), 5) whether reading rate is an ability assessed, 6) whether illustrations accompany the passages, 7) whether the passages are given a title, and 8) whether the passages are introduced by the examiner with an explanation to the child concerning the passage content to be read. A summary of the results of this phase of the analysis is presented in Table 2.
<table>
<thead>
<tr>
<th>Format Variables</th>
<th>Number of Forms</th>
<th>Difficulty Levels</th>
<th>Length of Passages</th>
<th>Nature of Content (Expository or Narrative)</th>
<th>Rate Measured</th>
<th>Illustrations</th>
<th>Titles</th>
<th>Passages Introduced</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Burns &amp; Roe</td>
<td>4</td>
<td>PP-12</td>
<td>90-200</td>
<td>PP-12&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Ekwall</td>
<td>4</td>
<td>PP-9</td>
<td>31-202</td>
<td>PP-3</td>
<td>4-9</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Fry</td>
<td>1</td>
<td>1-7</td>
<td>14-54</td>
<td>1-5</td>
<td>6-7</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Gilmore &amp; Gilmore</td>
<td>4</td>
<td>1-10</td>
<td>26-252</td>
<td>1-10</td>
<td>-</td>
<td>yes</td>
<td>yes&lt;sup&gt;b&lt;/sup&gt;</td>
<td>no</td>
</tr>
<tr>
<td>Gray</td>
<td>4</td>
<td>PP-Adult</td>
<td>21-50</td>
<td>PP-6</td>
<td>7-Adult</td>
<td>yes</td>
<td>yes&lt;sup&gt;b&lt;/sup&gt;</td>
<td>no</td>
</tr>
<tr>
<td>Johns</td>
<td>3</td>
<td>PP-8</td>
<td>49-100</td>
<td>PP-8</td>
<td>4-8</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>McCracken</td>
<td>2&lt;sup&gt;c&lt;/sup&gt;</td>
<td>PP-7</td>
<td>47-149</td>
<td>PP-5</td>
<td>4-7</td>
<td>yes</td>
<td>no</td>
<td>yes&lt;sup&gt;d&lt;/sup&gt;</td>
</tr>
<tr>
<td>Rinsky &amp; DeFossard</td>
<td>3&lt;sup&gt;e&lt;/sup&gt;</td>
<td>PP-9</td>
<td>47-317</td>
<td>P-9</td>
<td>P-9</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Silvaroli</td>
<td>3</td>
<td>PP-8</td>
<td>24-165</td>
<td>PP-2</td>
<td>3-8</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Spache</td>
<td>2</td>
<td>1.6-8.5</td>
<td>29-212</td>
<td>1.6-3.8</td>
<td>4.5-8.5</td>
<td>yes</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Sucher &amp; Allred</td>
<td>1</td>
<td>P-9</td>
<td>51-195</td>
<td>P-4</td>
<td>5-9</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>Woods &amp; Moe</td>
<td>3</td>
<td>P-9</td>
<td>50-339</td>
<td>P-7</td>
<td>8-9</td>
<td>no</td>
<td>no</td>
<td>yes</td>
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</tbody>
</table>

<sup>a</sup> = fiction and nonfiction, but not expository  
<sup>b</sup> = one illustration used  
<sup>c</sup> = each form includes passages for oral and silent reading, thus four sets are included  
<sup>d</sup> = avoid giving information about passage  
<sup>e</sup> = fiction, social studies & science are each a separate form
Number of Forms. The inventories all include at least 2 forms; 7 of the 12 provide 3 or more forms. In several cases (e.g., Burns and Roe, Johns), users of the inventory are advised by the author that both oral and silent reading can be assessed using a different form for each assessment. In that regard, the advantage of 4 forms of an inventory is evident if both oral and silent reading are assessed on a pre-post test basis.

Difficulty Levels. The range of differences found in nearly any reading group or classroom makes it desirable that an IRI include passages at many levels. This permits the teacher to find a comfortable lower reading level and to observe how the child processes text that is difficult for him/her as well.

The inventories examined begin at a preprimer level with three exceptions (Gilmore, Sucher & Allred, and Spache). Less similarity is found with regard to the upper level. The McCracken Inventory stops at level (grade) 7. On the other hand, Gray includes an adult level passage. Other IRIs stop at grade 8, 9, 10, or 12, with grade eight being the most common stopping point.

Length of Passages. When assessing a student's reading performance the teacher must gather sufficient samples of behavior to permit reliable measurement. Other things being equal, the longer a test the more reliable it will be. Reliability is an important consideration in an IRI, of course, and is dependent to some extent on the length of the passages a student is asked to read. Longer passages provide greater opportunity to observe the child engage in reading. Obviously, longer passages take more time to administer, so reliability is gained and convenience is lost.

Some difference is evident among the IRIs with respect to length of passages. Table 2 indicates that the Fry includes the shortest passage (14 words at level 1) and the Gilmore includes the longest passage (252 words at level 10). A common length seems to be 30 or so words at the preprimer level and about 200 words at the upper grade levels.

Content of Passages. Evidence is beginning to accumulate to suggest that readers may process different types of text such as narrative and expository prose in different ways (Taylor, 1979). Children encounter narrative text in most basal readers and in works of fiction. They encounter expository text in content area textbooks. The content of passages in an IRI (i.e., whether they are narrative or expository in content) is a significant factor in how the results can be used and interpreted. That is, a reading level found on narrative material may not be an accurate indicator of the child's ability to handle expository material at the same level, and vice versa.

The findings reported in Table 2 indicate that only a few IRIs do not include expository matter (e.g. Gilmore, Burns & Roe). The typical pattern is to include expository passages at the upper grade levels (4th and above) which often focus on science and social science concepts.

Reading Rate. Reading rate is commonly regarded as a measure of fluency. Five of the twelve inventories examined do not provide for the calculation of reading rate.
Use of Illustrations. The role of illustrations in reading is widely debated (Samuels, 1977; Braun, 1969; Arlin, Scott and Webster, 1979). Some argue that illustrations distract a reader's attention from the printed text. Others believe that expectation and general anticipation of meaning are enhanced by the availability of illustrations that relate to textual matter. It is not surprising that IRIs differ on the inclusion of illustrations to accompany passages. Table 2 shows that four IRIs (Silvaroli, Rinsky and DeFossard, Gilmore, and Gray) include illustrations.

Use of Titles. The IRIs examined also differ on the use of titles for each passage. The work of Ausubel (1960) on advance organizers is relevant in this regard. In most cases a title that conveys main idea information about the content of a passage will aid the reader in reconstructing meaning. One might argue that this is a true-to-life task since most of what one reads is preceded by a title. On the other hand, if the purpose of administering the IRI is to test the reader's ability to process running text, the use of titles may be inappropriate. In a relatively brief passage, a title may provide a disproportionate amount of information for the reader, thereby obscuring just how much understanding is obtained from the running text. Only three of the IRIs examined employ titles (Silvaroli, Rinsky & DeFossard, and McCracken).

Introduction of Passages. Finally, another area where the IRIs examined differ on a feature that may affect pupil performance has to do with whether the examiner introduces the passages. The amount and quality of introductory comments can vary just as the descriptiveness of a title can vary. In the cases where introductory activity occurs (Silvaroli, Burns & Roe, Sucher & Allred, Rinsky and DeFossard, and McCracken) the examiner calls the attention of the reader to titles or mentions topics to be encountered.

Introductory comments may affect pupil performance by serving as advance organizers, or simply by motivating the child in some manner. Table 2 indicates that introductory comments are employed in six of the IRIs examined.

Scoring Procedures and Criteria Employed

IRIs typically measure word recognition and comprehension abilities. Word recognition performance is often examined with the use of word lists (words in isolation) and through accuracy in pronouncing words in connected discourse (words in context). In some IRIs performance on graded word lists is used to estimate which passage the child should begin reading.

Comprehension is usually measured with questions asked by the examiner and answered orally by the child after reading a passage silently or orally. Questions are often classified according to a scheme that differentiates among detail or recall questions and questions calling for inference. Questions which focus on vocabulary are sometimes included as well.

In most IRIs criteria are employed which assign a label to the child's performance based on accuracy. Though terminology may vary, the levels of performance are the traditional ones promulgated by Betts (1946): 1) independent or recreational level; 2) instruc-
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<th></th>
<th>Independent Level</th>
<th>Instructional Level</th>
<th>Frustration Level</th>
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</thead>
<tbody>
<tr>
<td>Burns &amp; Roe</td>
<td>90%</td>
<td>80–85%</td>
<td>75%</td>
</tr>
<tr>
<td>Ekwall</td>
<td>90%</td>
<td>80%</td>
<td>70%</td>
</tr>
<tr>
<td>Fry</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Gilmore &amp; Gilmore</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Gray</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Johns(^a)</td>
<td>95%</td>
<td>70–90%</td>
<td>65%</td>
</tr>
<tr>
<td>McCracken</td>
<td>92%(^b)</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Rinsky &amp; DeFossard</td>
<td>85%</td>
<td>70%</td>
<td>below 70%</td>
</tr>
<tr>
<td>Silvaroli</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Spache(^c)</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sucher &amp; Allred</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Woods &amp; Moe</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

NA = Not applicable
NS = Not specified
* = Stop when child misses 5 of 20 words (75%)
\(^a\) = Timed and untimed word recognition are recorded
\(^b\) = Stop at 8 successive errors or when 50% of the words on a list are read incorrectly
\(^c\) = Results are derived from norm-referenced grade equivalents—stop when 5 consecutive errors occur.

Table 3
Word Recognition Criteria for Words in Isolation

It should be obvious that the criteria used for judging a child's performance are critical. If a particular level of word recognition accuracy is regarded as basic to success in daily instruction, children achieving above that level will be expected to read material at a particular difficulty level. Such criteria ought to be based on empirical evidence. All too often the time-honored Betts criteria are employed without benefit of try-out and validation on specific passages. (Independent: WR - 99%, Comp - 90%; Instructional: WR - 95%, Comp - 75%; Frustration: WR - Below 90%, Comp - 50%; Betts, 1946).
Table 4
Word Recognition Criteria for Words in Passages (Context)

<table>
<thead>
<tr>
<th></th>
<th>Independent Level</th>
<th>Instructional Level</th>
<th>Frustrational Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burns &amp; Roe</td>
<td>99%</td>
<td>85% (gr. 1-2)</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>95% (gr. 3-12)</td>
<td></td>
</tr>
<tr>
<td>Ekwall</td>
<td>99%</td>
<td>95%</td>
<td>90%</td>
</tr>
<tr>
<td>Fry</td>
<td>85.7-98.1%*</td>
<td>71.4-96.3%*</td>
<td>64.3-94.4%*</td>
</tr>
<tr>
<td>Gilmore &amp; DeFossard</td>
<td>NS</td>
<td>NS</td>
<td>61.5-96.0%</td>
</tr>
<tr>
<td>Gilmore</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gray</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Johns</td>
<td>99%</td>
<td>95%</td>
<td>90%</td>
</tr>
<tr>
<td>McCracken</td>
<td>97.9-98.7%*</td>
<td>87.2-98.0%*</td>
<td>85.1-89.9%*</td>
</tr>
<tr>
<td>Rinsky &amp; Silvaroli</td>
<td>P-6 97%</td>
<td>92-96</td>
<td>91%</td>
</tr>
<tr>
<td></td>
<td>7-9 93%</td>
<td>93-97</td>
<td>92%</td>
</tr>
<tr>
<td></td>
<td>97.9-100%</td>
<td>91.7-97.0%</td>
<td>87.5-91.0%*</td>
</tr>
<tr>
<td>Spache</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sucher &amp; Allred</td>
<td>97%</td>
<td>92-96</td>
<td>91%</td>
</tr>
<tr>
<td>Woods &amp; Moe</td>
<td>99%</td>
<td>95%</td>
<td>90%</td>
</tr>
</tbody>
</table>

NS = Not specified
NA = Not applicable
* = Based on conversion of word errors per passage to approximate percentages. Actual percentage varies among passages.
a = Less than 10 errors per paragraph is taken as satisfactory.
b = A score is obtained based on number of errors and reading time. These are converted into a grade equivalent.
c = Success or failure is determined by comparison to a minimum error criterion which was established through a norming procedure.

The results of our examination of the commercial IRIs on scoring procedures and criteria are contained in Tables 3, 4, 5, 6, and 7. Further discussion of each table is presented below.

Word Recognition Criteria. Table 3 indicates whether or not the IRIs examined include lists of words. Where used, the reader's task is to pronounce the words correctly. Some inventories (McCracken) have the child call the word when it is flashed (i.e., brief exposure using a tachistoscope) and during an untimed exposure if it is missed when flashed. This procedure is used to identify which words are sight words. In any case, the child's percentage of correct responses is used to determine (label) his level of performance (e.g., frustration level, etc.). Table 3 indicates the
criteria to be used (expressed as percentages). Obvious variation exists from inventory to inventory. This suggests that a teacher might get a somewhat different picture of Pam or Ben depending on which inventory s/he uses.

Criteria to be applied when testing the reader's ability to read words in context are given in Table 4. Though some variation is evident among inventories, greater uniformity is found in this area than in words in isolation. Where agreement exists, the explanation seems to be the use of the Betts criteria.

In order to use the criteria reported above, the teacher must be guided in knowing what to count as an error when the child reads aloud. This is especially true when some assessment of strengths and weaknesses is being undertaken, but is true even when errors are merely counted to determine the child's reading level. Common error categories have emerged over time in IRI's. Thus considerable agreement seems to exist among inventories that when a word is omitted, for example, it should be recorded and counted as an error. Table 5 indicates which error categories are listed in the inventories examined.

Of special interest to us were the instructions provided by the author of the IRI in recording and tabulating errors. We might expect, in light of considerable evidence about the value of analyzing the child's patterns of miscues that certain cautions would be given to one who uses the IRI. These cautions would emphasize the importance of qualitative assessment along the lines of the RMI procedures described by Goodman and Burke (1972). The Johns Inventory serves as an example of an inventory that provides appropriate cautions with respect to not merely treating all errors equally with regard to their nature. In fact, Johns suggests that only miscues which change meaning be counted as errors.

Comprehension. The criteria given in the IRI's for judging comprehension performance are summarized in Table 6. The influence of Betts is evident, though some IRI's deviate from the Betts pattern of 90 - 75 - 50. Ekwall, for example, bases his criteria on research findings.

Two other aspects of comprehension assessment relate to the number and types of questions included in the inventories. Table 7 indicates that some IRI's ask as many as 10 questions about a passage; others ask only 4 or 5. Some ask fewer questions at the preprimer level where passages are shorter in length. Silvaroli and Gilmore ask 5 questions at each level.

Most IRI's include questions of fact and questions requiring inference. Burns and Roe ask questions in 6 different categories including vocabulary. Gray and Gilmore ask fact or detail questions only. Table 7 summarizes the findings for the types of comprehension questions included in each IRI.

Instructions for Interpretation and Use of Results

An IRI developed for the commercial market can be expected to provide instructions to the teacher for interpreting and using the results. It is also reasonable to expect that the instrument will be tried with children and revised before distribution accord-
Table 5
Error Categories

<table>
<thead>
<tr>
<th></th>
<th>Substitution</th>
<th>Insertion</th>
<th>Omission</th>
<th>Reversal</th>
<th>Aid</th>
<th>Mis-Pronunciation</th>
<th>Punctuation</th>
<th>Repetitions</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burns &amp; Roe</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^a)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ekwall</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^b)</td>
<td>X</td>
<td>X(^c)</td>
<td>X(^d)</td>
<td></td>
</tr>
<tr>
<td>Fry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X(^e)</td>
<td></td>
</tr>
<tr>
<td>Gilmore &amp; Gilmore</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^f)</td>
<td>X</td>
<td>X(^g)</td>
<td>X(^h)</td>
<td></td>
</tr>
<tr>
<td>Gray</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^j)</td>
<td>X</td>
<td>X</td>
<td>X(^k)</td>
<td></td>
</tr>
<tr>
<td>Johns</td>
<td>X(^m)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^l)</td>
<td>X</td>
<td>X(^n)</td>
<td>X(^o)</td>
<td></td>
</tr>
<tr>
<td>Silvaroli</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^p)</td>
<td>X</td>
<td>X(^q)</td>
<td>X(^r)</td>
<td></td>
</tr>
<tr>
<td>Sucher &amp; Allred</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^s)</td>
<td>X</td>
<td>X(^t)</td>
<td>X(^u)</td>
<td></td>
</tr>
<tr>
<td>Woods &amp; Moe</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^v)</td>
<td>X</td>
<td>X(^w)</td>
<td>X(^x)</td>
<td></td>
</tr>
<tr>
<td>Spache</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X(^y)</td>
<td>X</td>
<td>X(^z)</td>
<td>X(^a)</td>
<td></td>
</tr>
</tbody>
</table>

a. called refusal to pronounce  
b. partial and gross  
c. not scored as an error  
d. self-correction  
e. self-correction not counted as error  
f. hesitation (2 sec)  
g. gross and partial  
h. provides for 4 types—
j. miscellaneous  
k. called "pronunciation"  
l. two or more words  
m. hesitation (non-error)  

ing to the feedback received. Furthermore, validity and reliability information should also be supplied by the test author(s).

Because of the nature of an IRI it is not necessarily expected that norms for comparing pupil performance will be provided. We say this in part because the passages to be read in an IRI have been graded for difficulty. In other words, the IRI has a grade
Table 6
Comprehension Criteria

<table>
<thead>
<tr>
<th></th>
<th>Independent</th>
<th>Instructional</th>
<th>Frustrational</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burns &amp; Roe</td>
<td>90%</td>
<td>75%</td>
<td>50%</td>
<td>75%</td>
</tr>
<tr>
<td>Ekwall</td>
<td>90%</td>
<td>60%</td>
<td>50%</td>
<td>70-75%</td>
</tr>
<tr>
<td>Fry</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Gilmore &amp; Gilmore¹</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Gray¹</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Johns</td>
<td>90%</td>
<td>75%</td>
<td>50%</td>
<td>75%</td>
</tr>
<tr>
<td>McCracken</td>
<td>90%</td>
<td>60-80%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Rinsky &amp; P-I</td>
<td>80%</td>
<td>60%</td>
<td>59%</td>
<td></td>
</tr>
<tr>
<td>DeFossard 2-3</td>
<td>85%</td>
<td>65-70%</td>
<td>59%</td>
<td></td>
</tr>
<tr>
<td>DeFossard 4-9</td>
<td>90%</td>
<td>75%</td>
<td>64%</td>
<td></td>
</tr>
<tr>
<td>Silvaroli</td>
<td>80%</td>
<td>70-80%</td>
<td>50%</td>
<td>75%</td>
</tr>
<tr>
<td>Spache</td>
<td>NS</td>
<td>85%</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Sucher &amp; Allred</td>
<td>80%</td>
<td>60-79%</td>
<td>59%</td>
<td></td>
</tr>
<tr>
<td>Woods &amp; Moe</td>
<td>90%</td>
<td>75%</td>
<td>50%</td>
<td>75%</td>
</tr>
</tbody>
</table>

NS = Not Specified       NA = Not Applicable
¹ = A grade equivalent is obtained by totaling the number of correct answers for all passages, and using a table of norms.

one passage, a grade two passage, and so forth. The passages are used to determine which level the pupil can read according to a set level of accuracy in word recognition and comprehension. In this way a "grade equivalent" is identified thus making norms redundant. Norms are also unnecessary because the teacher's interest is in the pupil's individual pattern of responses when using the IRI diagnostically, not on comparing performance to a group average.

Table 8 summarizes our findings concerning the inclusion of instructions for interpreting and using the results of the IRIs we examined. We have resisted the temptation to judge the adequacy of the authors' presentations on test interpretation on the grounds that each teacher will need to decide whether a particular IRI fits with his/her own concept of reading. A crude index of attention given by the IRI authors to interpretation is provided by the number by the number of pages devoted to this matter in the test manual. Some IRIs give only a page or two of information on interpreting results (Fry, McCracken, Ekwall, Gray). Others give seven or eight pages (Johns, Gilmore).

Table 8 also indicates that nine of the IRIs examined were reportedly tried with children and revised according to the results obtained. Validity coefficients were reported for five of the instruments. An issue of particular importance in IRIs, intrascorer reliability, was addressed by only one IRI (Ekwall). Three IRIs
Table 7
Types & Number of Comprehension Questions

<table>
<thead>
<tr>
<th></th>
<th>Main Idea</th>
<th>Fact or Detail</th>
<th>Vocabulary</th>
<th>Inference</th>
<th>Sequence</th>
<th>Cause &amp; Effect</th>
<th>Conclusion</th>
<th>Experience/Evaluation</th>
<th>Recall</th>
<th>Interpretation</th>
<th>Number of Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burns &amp; Roe</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 (8 at PP 21.)</td>
</tr>
<tr>
<td>Ekwall</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 (5 at PP 1.)</td>
</tr>
<tr>
<td>Frya</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Gilmore &amp; Gilmore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Gray</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Johns</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10 (4 at PP 1.)</td>
</tr>
<tr>
<td>McCracken</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Rinsky and DeFossard</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Silvaroli</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Spache</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7-8</td>
</tr>
<tr>
<td>Sucher &amp; Allred</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woods &amp; Moe</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8 (6 at p. 21.)</td>
</tr>
</tbody>
</table>

a = comprehension not assessed
b = use free recall first
c = called terminology

we examined provided norms.

It can also be seen in Table 8 that seven of the ten IRIs provided a bibliography that guides the teacher in locating references that are useful in understanding the nature of IRIs, how they are developed, and how they can be used and interpreted.

Summary
What we've discovered here is that considerable variation exists among IRIs. Some practices seem to reflect a "conventional wisdom" that has developed over time. Some IRIs occasionally depart from tradition on a feature or two, but still follow the general pattern. What we believe is needed is a careful examination of
Table 8
Interpreting and Using IRI Results

<table>
<thead>
<tr>
<th>Researcher</th>
<th>Pages of Information</th>
<th>Tried Out with Children</th>
<th>Statistical Evidence of Validity Reported</th>
<th>Statistical Evidence of Reliability Reported</th>
<th>Norms Provided</th>
<th>Bibliography Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burns &amp; Roe</td>
<td>12</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>no</td>
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</tr>
<tr>
<td>Ekwall</td>
<td>4</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Fry</td>
<td>1</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Gilmore &amp; Gilmore</td>
<td>8</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Gray</td>
<td>6</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Johns</td>
<td>7</td>
<td>NR</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>McCracken</td>
<td>1</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Rinsky &amp; DeFossard</td>
<td>9</td>
<td>yes</td>
<td>no</td>
<td>no</td>
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<td>yes</td>
</tr>
<tr>
<td>Silvaroli</td>
<td>14</td>
<td>NR</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Spache</td>
<td>7</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>Sucher &amp; Allred</td>
<td>4</td>
<td>NR</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Woods &amp; Moe</td>
<td>4</td>
<td>yes</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

NR = not reported

1 = norms given for silent reading

Specific features through empirical data collection to verify or challenge conventional features of IRI. Ultimately, IRIs should be based on the results of sound research rather than on traditional practice or personal whim.

BIBLIOGRAPHY


In 1965 Congress enacted the Elementary and Secondary Education Act known as ESEA. Title I of this act provided financial assistance to local school districts for the planning and operation of special programs for the educationally deprived child. ESEA was designed as a supplemental program to upgrade the educational opportunities of children from low income areas, but not to supplant the educational programs than in progress. The goal of Title I was to eradicate children's educational inequities that were due to economic and social deprivation. It is clear that economic poverty was the primary focus. This is plainly stated in the 1977 report on compensatory education from the National Institute of Education:

In recognition of the special educational needs of children of low-income families and the impact that concentrations of low-income families have on the ability of local educational agencies to support adequate educational programs, the Congress hereby declares it to be the policy of the United States to provide financial assistance to local educational agencies serving areas with concentrations of children from low-income families in order to expand and improve their educational programs by various means.

(NIE, 1977, p. 8)

The enactment of ESEA was unique in that this was the first federally funded compensatory education bill. There were many hurdles that had to be overcome before the bill was passed. Other administrations had tried to pass similar measures but had failed. There was the traditional argument between church and state (public vs. private schools). This problem was solved by stating that while private schools were not to receive direct financial assistance, the children attending private schools, who fell within the guidelines as being qualified to receive Title I funds, were entitled to receive those benefits through the public schools or Local Educational Agency.

The long-standing feud between rural and urban states was handled by making funds available to all areas, basing that primarily on family income status. In this way, all eligible areas would be able to get their share of funds. The problem of federal control of education was handled by giving the administration of appropriate funds directly to state educational agencies. These agencies were individually responsible to the federal government for making sure that the money would be spent within the guidelines set forth.

Title I is the largest federal program providing funds to elementary and secondary education with nearly five million children
in over 14,000 school districts participating in Title I classes during the 1978-79 school year. That equals 90% of the nation's school districts in the program, at a cost of more than two billion dollars during that period.

According to the 1980 Annual Report of the Department of Education, one of the major accomplishments in fiscal year 1980 was an improvement in student achievement scores in major cities such as Detroit, Los Angeles, and Washington, D.C. (US DOE, 1980). The report did specify, however, that there is no definite evidence that the increases are due to Title I, but the authors felt that Title I compensatory classes played an important role.

At the present time, Title I will extend through September 10, 1983. However, cuts have been made, through reduction of funds and consequently, services and staff.

Pros and Cons

In a recent edition of The Virginian-Pilot (Mar. 13, 1981), there was a report on the expected cut of school employees in Portsmouth, Virginia, due to the lack of federal funds in the remedial reading and mathematics programs. The article stated:

"...the program has been controversial because its effectiveness is difficult to prove."

This statement sums up a major problem of Title I. There appears to be a lack of information concerning the effectiveness of Title I classes. Much of the information that is available relates to the attitudes of parents and teachers, rather than to statistical evidence concerned with the effectiveness of the program. Hecht (1973) stated that not only was there a lack of standardized procedures for evaluating the programs, but there was no standard way to disseminate any information that was gathered.

Research related to the population served by Title I also points out that this program is not serving all of the children eligible to receive help. According to Pennsylvania State Senator Jeannette Reibman (1978), there are two reasons for this. First, there is just not enough money available to serve all of the eligible children. Second, since each LEA sets up its own criteria for choosing Title I schools, all of the schools chosen are not necessarily meeting the same standards.

William Wayson (1975) expressed some of the strongest opposition to Title I. He felt that it was a disaster right from the beginning. He stated that schools and communities were not ready to accept the concept of Title I nor were they prepared to accept the additional personnel and the funds they brought with them, since these funds were only available to those children designated as Title I students. He also felt that much of the money intended for the remedial classes was siphoned off into pet projects or was just lost due to poor administration of the program.

Some educators feel that the testing done in the Title I program is not realistic (Long, 1977). Currently, most of the testing is done at the grade level in which the child is enrolled, rather than at the instructional level of reading or mathematics where the child
is functioning. It was found that grade-level and instructional-level testing did result in significantly different grade-equivalent scores. In recent years, less than qualified personnel were hired to teach in the program. They were not reading specialists with graduate work in reading, rather, as one principal stated, "My Title I teacher is a former classroom teacher who couldn't handle the discipline of a large group."

While all of these negative comments have validity, some things have been done to correct the inadequacies of the program. In 1974, when ESEA was extended for five more years, mandates were prescribed for the evaluation of the program. Standards were set to be used in evaluating academic performance of the children involved, and standards were also set to insure that Title I funds were being used appropriately (Halperin, 1978). The statistic designed to measure student achievement is known as the normal curve equivalent or the NCE. It is recognized that any positive NCE over 0 is directly attributable to Title I. Zero (0) means that no learning has occurred as a result of the Title I programs, an increase of three to four is considered average and a gain of over seven is considered outstanding.

There is some concrete information about Title I that we should cite. Children from poorer families are proportionately more highly represented in Title I reading classes than in the general school population. Since Title I was created to serve the economically depressed child, it is therefore fulfilling that commitment.

Proponents of Title I feel that the affective benefits of the program have been overlooked by its detractors. Many of these affective elements are hard to measure, but there has been research carried out in this area. Waller (1977) measured the attitudes of children enrolled in compensatory reading classes and compared these attitudes against children who were not in compensatory reading classes. While he did not specify these compensatory classes as Title I, the program would definitely fall into this category. In almost all instances, research reported that children enrolled in compensatory reading classes had a better attitude toward reading than those children not enrolled in these classes. This affective gain prevailed even when there was no significant gain in reading achievement.

Another positive result of the Title I ESEA programs has been called the "spin-off effect." School personnel have reported evidence that regular school programs have benefited due to the remedial practices of the Title I classes because many specialized methodologies have been implemented in the regular classroom as preventive measures.

Some educators also feel that due to the impact of the Title I programs, compensatory education has become accepted as a valid educational practice. Before the passage of ESEA, only one state had mandated compensatory classes, but by 1977, at least sixteen other states had implemented compensatory education. Most proponents of Title I do feel, however, that there is a great need for more specific guidelines to be used in evaluation procedures plus more specific guidelines to help the LEA reach an even greater number of children.
Statistical evidence of the success of failure of Title I programs is difficult to find, but there have been some published reports relating success stories due to Title I. Davidoff (1974) reported on the progress of Title I children in the Philadelphia city schools by examining scores of students with serious reading problems who were enrolled in compensatory classes and other children who, for one reason or another, were not in compensatory classes even though they were reading below grade level. The students in the Title I classes made substantial gains in reading achievement scores, whereas nonparticipating students did not. The results that he reported stated that the negative rates of performance experienced before Title I had been halted and positive rates of performances were being reported. Children in Title I schools were making a 75% gain in reading when compared to the same schools before Title I.

Similar results were reported to the Ninety-Sixth Congress (Oversight Hearing on Title I, 1979). The Iowa State Title I director reported that Title I classes were definitely proving their worth. These reading classes showed a NCE gain of 6.3 for the 1977-78 school year. The results of reading tests presented by the Director of Compensatory Education in the state of Tennessee showed similar results. The state had an average NCE gain of 4.2 in reading.

A success story was told from Ohio for 1978. Participants in Title I compensatory reading classes gained an average of 12 NCE's for that year. Ohio reported that the highest priority for Title I services in the state was to provide supplemental reading instruction.

Conclusion

Title I seems to have suffered from a politically bad public image. This could be due in part, to unrealistic goals expected from the program. Many expected the gap between Title I students and the average or above-average students to decrease. This is not a realistic expectation in that while the Title I child is receiving extra help, the above-average or average child is not standing still. In reality, services provided by the Title I teacher allow the regular classroom teacher to have more time to spend with the other students. In consequence, the gap isn't necessarily decreasing, but all levels of ability are being increased. As long as those children designated as Title I children are demonstrating achievement due to compensatory Title I classes, this program should remain a viable supplemental education program.

The future of Title I is uncertain, as is the future of the children who are being helped to read by the program. Hindsight is better than foresight in terms of what could have been possible to avert the problem and to demonstrate positive effects. However, what the field of reading has gleaned from two decades of Title I will help us to continue to design programs whose worth can be measured and the effects seen.
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The Virginian Pilot (Norfolk, VA), Friday, March 13, 1981, Sec. C, Page 1, Column 6.


In 1965, the Elementary and Secondary Act was passed by Congress and signed by President Lyndon B. Johnson. This particular act was designed to provide money to schools for undertaking new educational programs which would be of help to various kinds of students. Title I of the act was designed to help schools provide reading programs for disadvantaged students and other students who lived in socio-economic environments deemed substandard. The money was allocated to the various states for distribution to local school districts. Local school officials were encouraged to use new and different approaches to reading instruction for those children who found that reading was a difficult process to integrate into their learning patterns.

All of the monies provided for Title I were expected to be devoted to projects that were beyond the regular instructional program of the district for the designated students. School officials who received the money were expected to complete an annual report relating to the effectiveness of the projects that had been funded by Title I money. Certain specific reading achievement tests were chosen as evaluation instruments which should be used with students in the programs.

From 1965 to the present time, millions of dollars have been allocated by Congress for Title I reading programs across the nation. For the most part these programs have been successful in improving the reading skills of the targeted student groups. Some persons, within and outside of the Federal government, have felt that much of the money should have gone to other projects in other agencies.

The financing of public elementary and high school education became an issue in the presidential election of 1980. Candidate Ronald Reagan was asked—"What are the major problems facing elementary education today?" His reply was "Since 1962 when federal aid to education began, per student costs have increased and test scores have fallen virtually in proportion to the rise of federal spending and control over education. The Carter administration policy has been more of the same and I disagree with it." Candidate Reagan was also asked the question—"Do you plan to do anything to alleviate the problem?" His answer was "The best way to insure quality education is to maximize control by parents, teachers, and local school boards. To accomplish this we should transfer federal educational funding of programs back to the state and local school district along with the resources to pay for them." He went on to say that he wanted to abolish the $15 billion Department of Education as
With the election of Ronald Reagan as President there was an immediate clamor to fulfill the campaign promises that he had made with regard to education and particularly monies under the Elementary and Secondary Act of 1965. Indeed, the amount of money to be allocated to the states for Title I for the current school year is from 10 to 25 percent less than in previous years.

Because of the diminished amount of money available for Title I reading programs, it is incumbent upon all teachers to assume a new and expanded role for the development of reading skills of the pupils assigned to them for instruction. In some schools special reading teachers will no longer be available to help seriously disabled readers. In many cases these students will have to remain in the regular classroom and receive help from their teacher.

The three major purposes of this article are to outline briefly the results that have been achieved in past Title I reading programs, the new role for all teachers for improving reading skills, and a prediction regarding the future of Title I reading programs.

**Success of Title I Reading Programs**

Title I is the largest federal program providing aid to elementary and secondary education. In the school year 1978-79, nearly five million children in over 14,000 school districts participated in Title I activities. The cost to the federal government was more than $2 billion for Title I monies. The Education Amendments of 1978 extend Title I of ESEA through September 30, 1983. (4)

After sixteen years of experience with Title I programs, what have been the results? There is a growing body of evidence that early intervention can reverse decline and lead to dramatic increases in the achievement level of the disadvantaged pupils. For example, the National Assessment of Educational Progress Report shows that large gains in reading were made in the '70's among nine-year-old black students across the country. This improvement was attributed to compensatory education programs of the kind financed by Title I. Other studies favorable to Title I have been recently completed by the National Institute of Education, the Educational Testing Service, and the Stanford Research Institute. A continuing study sponsored by the Carnegie Corporation has demonstrated the importance of preschool education for disadvantaged suburban school systems including those in New York City. (1)

In the state of Nebraska, for example, over twenty thousand students (excluding kindergarten pupils) were enrolled in Title I reading programs in the 1979-80 school year. About sixty percent of the students in the reading program were male and just under ninety percent were white. Of the total, 85% were enrolled in public schools. The average student performance in Title I reading programs showed dramatic increases in achievement. In Grade 2, there was a 17.5 increase in percentile equivalence; in Grade 3 it was 13.5; and in Grade 4 it was 12.0. These data would indicate that at least in Nebraska the results of Title I reading instruction have been most positive. (2) Mr. Gary Hoeltke, vice president of Selection Research, Inc., analyzed the test score information for the Nebraska
State Department of Education, and said that "there is pretty good
evidence that students who participated in the Title I program made
more progress in reading and math than they would have without spec-
tial instruction." (3)

In summary, it would appear that those disadvantaged students who
have been involved in a viable, well-planned reading program have
been able to achieve very positive results. These students have
been exposed to new material, special instruction, and other types
of techniques that would lead them to gain at an optimum rate. As
funds are trimmed, all teachers in a school system must assume new
roles.

The New Role of Teachers

As we proceed in this decade, we will have to formulate a new
role for all teachers if schools are to survive with less Title
I reading money. The facts are that many kinds of children are en-
rolled in schools, some have reading difficulties, and individual
teachers must assume the instruction for helping each learner. There
are at least five new strategies that must be undertaken if the
instruction for these pupils is to be thorough, in helping to meet
the learning needs of each child. The following thoughts are not
listed in any particular order of importance.

1. With fewer reading specialists available, each classroom
teacher will need to develop expertise in diagnosis and correction
of reading problems. For some this will necessitate enrollment in
local universities, in graduate reading classes. For others it might
involve enrolling in a workshop, while for others it may require
the review of certain professional texts in the field. Many companies
send brochures to teachers describing new literature in the area
of reading. Other companies advertise in reading journals to apprise
readers of new materials that are currently being tested and used.

2. Schools must provide teachers with a wide assortment of
materials which are housed in a central location in the building.
If the reading specialist can no longer be employed, materials which
he or she formerly used might be made available to the total staff.
In some cases this has not been possible under previous Title I
guidelines, but with the relaxation of such guidelines this practice
may be possible in the future.

3. Better accounting procedures must be developed for recording
the reading strengths and limitations of each student. More than
ever before, the classroom teacher will need to have a very careful
and exact assessment of the efficiency of each student in the basic
skill areas of word attack, comprehension, and study methods. This
would necessitate the listing of the skills emphasized at particular
grade levels. The students' names could be listed at the left side
of a profile sheet, and checkmarks could be recorded which would
indicate whether the child has accomplished the skill at any given
point in time.

4. As finances permit, more utilization of computer-assisted
instruction will need to be instituted. For example, such equipment
as the Apple and the TRS-80 computers might be used for this purpose.
These computer terminals allow each child to proceed at his or her
own rate based on the exact instructional needs of the student.
As the computers are sold on a wider basis, the price of such teaching aids no doubt will be lower in the future.

5. The use of both paid and volunteer aides must be enlarged. If classroom teachers are to assume a greater role for remediation, they must receive additional help. These aides can give individual instruction to students who are greatly deficient in one or more of the strategic reading skill areas.

The Future of Title I Reading Programs

It appears to be a fact of life that schools in the future will be receiving less Title I money for reading and related programs than they have in the past. This should not signal the end of effective reading programs for students, since many of these learners need immediate help from the remainder of the teaching staff.

The programs must be streamlined and altered according to the five guidelines which have been expressed in the previous section. Certainly all classroom teachers need to see reading as a process rather than a subject. Each instructor must assume the posture that he or she is totally responsible for the teaching of word attack, vocabulary, comprehension, and study skills, as these components relate to the subject or learning level involved.

Reading achievement testing results need not necessarily decline as a result of decreased Title I funding. With some restructuring of priorities and attitudes on the part of both teachers and administrators, we can continue the types of outstanding reading programs that have been established over the past sixteen years. Can we survive with less Title I reading money? It is possible by reassessing our responsibilities.

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HELPING STUDENTS UNDERSTAND COMPLICATED SENTENCES

Kathleen C. Stevens
DEPARTMENT OF READING, NORTHEASTERN ILLINOIS UNIVERSITY

Introduction

Teachers at all grade levels are often faced with students whose word analysis and vocabulary skills are adequate, yet who have a problem reading and understanding connected text in sentence form. Problems in sentence comprehension become particularly marked when students are asked to deal with the complicated sentence structures typical of more advanced reading material. Such sentences may have multiple subjects and predicates, embedded clauses and phrases, passive voice, and/or unusual word orders. The following examples illustrate sentences with which students may be confronted in their school reading assignments:

If I held it up for a while by myself, then surely you, with your great strength, can hold it up for the short time it will take me to run and bring help, and chickens and tortillas. (Ginn basal reader, Grade 3: A Lizard to Start With, p. 298)

In some villages, like Orasac, parents and children usually still share their homes with grandparents and grandchildren, but the strict rules of the old zadruga (clan) are no longer followed. (Holt, Inquiring About Technology, grade 6, p.118)

The great pullman was whirling onward with such dignity of motion that a glance from the window seemed simply to prove that the plains of Texas were pouring eastward. (Stephen Crane, "The Bride Comes to Yellow Sky," p. 1)

It (web) expresses the intricacy and precision of the spider's adaptation—its ability to live from and within its environment; an aspect of that adaptation—and of all adaptations whatever—is the ability to reproduce, and hence to maintain the population of spiders through the ages, a population that endures although the individuals in it perish. (Simpson and Beck, Life: An Introduction to Biology, p. 1)

Strauss aides also reportedly told newsmen on his plane trip home from the Middle East that Brezhinski has drafted the rigidly phrased Presidential instructions that forced him to argue for the American resolution until he was "shot down" by both Israel and Egypt. (Newsweek, Sept. 3, 1979)

Disorders in Nicaragua, perilously close to the Panama Canal jugular vein, had jeopardized American lives and property, and in 1927 President Coolidge felt compelled to dispatch over 5000 troops to this troubled banana land. (Bailey, The American Pageant, p. 308)
Sentences such as the above may present difficulty for readers, even if they know all the individual words in the sentence. The difficulty with the sentences resides in their complex organization. Written sentences tend to be syntactically complex, containing many subordinated and conjoined clauses. These patterns are more complex than those encountered in oral language (Strickland, 1962; Horowitz and Berkowitz, 1967; Wilkinson, 1971; Schallert, Kleinman and Rubin, 1977). Thus, students have difficulty interpreting the message of the sentence because they are unfamiliar with the syntactic structure in which the ideas are embedded. This is especially true for students who have not read widely, and thus have not come across a variety of written sentence structures.

Research Regarding Complicated Syntax

Various studies have found that grammatical complexity presents a reading problem for students. Schlesingear (1966), Bormuth et al (1970), Pearson (1974) and Richel (1976) all provide evidence that complex sentences pose reading problems for students. Complex sentences are often characterized by the use of anaphora, since referencing is required in order to embed ideas in sentences. Studies by Chomsky (1969), Lesgold (1974), Richel (1977), and Barnitz (1979) indicate that children have difficulty dealing with anaphora. Complicated sentence structure is thus known to cause reading difficulties for students.

Attempts to Deal with Complex Sentence Structures

Publishers of school texts are aware of the difficulty which complicated sentence structures pose for children. The publishing industry is attempting to deal with this problem by "rewriting" texts in the simplest form possible, modifying syntax to reduce complicated sentence structures (Laya, 1979). In doing this, the industry is conforming to the suggestions of several reading researchers. Pearson (1974), Ruddell (1974), Wanat (1976), and Singer and Dreher (1978) have all recommended that syntax be modified to increase readers' understanding of text.

While the suggestion of text modification is valid as a beginning step in reading instruction, teaching students to deal with complex sentence patterns must remain a reading goal. If schools are to produce mature readers who can deal with the wealth of printed material in our language, they must concentrate on teaching students to cope with sentence structures. Research exists which demonstrates that basal reading systems do not offer sufficient reading instruction in written language patterns (Durkin, 1979). This article presents some suggestions to assist students in understanding complex sentences. Rather than "water down" all children's reading material, educators must help their charges deal with the complexities of written language so that children can read and appreciate the richness of our written heritage.

Instructional Implications

Reading is the process of interpreting a writer's message (Goodman, 1967). Successful readers can do this because they share with writers a common language, with common syntax and common conventions of written English. Thus, in order to teach children to interpret a writer's message, we must examine the form in which writers place
their ideas. Thus, we must examine the syntax of sentences so that children can learn to read complicated sentences.

An examination of complex sentences reveals that they are composed of a "main core" (the primary subject, predicate and object) with various ideas embedded in the sentences which add information concerning the "main core". For example, in the sentence:

Largely as a result of Young's unauthorized July 26 meeting with the P.L.O.'s U.N. observer, Zehdi Labib Terzi, the U.S. succeeded in delaying the debate until last week. (Newsweek, September 3, 1979)

the main core is "U.S./succeeded/delaying debate". The added ideas are why this was done (because of Young's meeting) and how long the delay lasted (until last week). In addition, we are given more information about Young's meeting (the time and the participants). We also see an example of anaphora (last week).

The instructional implications of this examination are obvious. Students must be taught to look for the "main core" of the sentence. Grammatically correct terminology is not important; rather, it is important that students know what the main idea of the sentence is. Only by knowing the primary import of the sentence can students attach the proper weights to added ideas.

Teachers are urged to "work through" sentences such as the above with their classes. Ask students to find the main core, then ask what ideas are added to this basic information. Students should discuss the anaphoric references found in such sentences. By starting with fairly basic complex sentences and progressing to ones with many embedded ideas, students can add to their knowledge of sentence structures, and become competent in reading them.

Teaching Specific Sentence Structures

In addition to exposing students to, and querying students on, complex sentence structures, several specific written language patterns should be taught. The following paragraphs detail some of these specific written structures.

Multiple Subjects or Multiple Verbs

Many sentences contain more than one subject or more than one verb:

Pointed arches and vaulted ceilings characterize Gothic architecture.

The council met at one and adjourned at two o'clock.

Present sentences such as the above to students and ask them to identify "what characterizes this type of architecture?" or "what did the council do?" Discuss the concept that more than one idea can be presented in one sentence. Students should realize the existence of multiple subjects or multiple verbs, and be able to deal with them in print.

Passive Voice

Passive voice is fairly unfamiliar in oral language and poses problems for readers (Wanat, 1976). Students can be taught to deal with the passive voice by examining sentences like the following:
John was drenched by the rain and frozen by the icy wind.

By asking such questions as "what drenched whom?" and "what froze whom?" the teacher can help students recognize the use of passive voice. They should also be taught that the passive voice often disguises the "doer" of action ("The door had been closed.")

**Coordination**

Compound sentences contain coordinate clauses, which show a relationship between the parts of the sentence. These clauses are conjoined by connectives; the clauses add ideas, contrast ideas, express choices between ideas, or express results (Warriner and Griffith, 1963).

Students should be shown sentences of each type, and exposed to the connective words which signal these relationships. Since many of these connectives are used with semicolons, instruction should be given regarding the semicolon. The following chart indicates the clue words to coordination:

<table>
<thead>
<tr>
<th>Connectives which add ideas</th>
<th></th>
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<tbody>
<tr>
<td>also</td>
<td>both . . . and</td>
</tr>
<tr>
<td>and</td>
<td>furthermore</td>
</tr>
<tr>
<td>besides</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connectives which contrast ideas</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>but</td>
<td>nevertheless</td>
</tr>
<tr>
<td>however</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connectives which express choice</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>either . . . or</td>
<td>nor, or</td>
</tr>
<tr>
<td>neither . . . nor</td>
<td>otherwise</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connective which express result</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>accordingly</td>
<td>hence</td>
</tr>
<tr>
<td>consequently</td>
<td>therefore</td>
</tr>
</tbody>
</table>

Students should discuss examples of sentences with the above connectives, noting how the ideas are juxtaposed using the connective words. Two examples of such sentences are:

The U.S. delayed the U.N. debate, since Young had met Terzi without sanction.

Howard Baker is said to be running for president; consequently, he will turn over his Minority Leadership duties to Senator Ted Stevens in November.

**Subordination**

Subordination is common in complex sentences. Subordinate ideas are those which are added to give more information regarding the "main core" of the sentence. Again, certain "clue words" indicate the presence of subordinate ideas in sentences. These are:

<table>
<thead>
<tr>
<th>Words which express time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>after</td>
<td>until</td>
</tr>
<tr>
<td>whenever</td>
<td>before</td>
</tr>
<tr>
<td>while</td>
<td>since</td>
</tr>
</tbody>
</table>
Words which express cause or reason—
  as
  since
whereas
  because

Words which express purpose or result—
  that
  in order that
so that

Words which express condition—
  although
  unless
so that

Students should be exposed to a wide variety of sentences containing subordination so that they can see the various forms and purposes of it. Always, students should find the "main core" and discuss how other embedded ideas add to the main core.

**Apposition**

A common form of embedding ideas is the appositive phrase:

The Yukon Delta, fifty thousand square miles of tundra, is located in Alaska.

Students should be shown that the appositive phrase tells us something more about its antecedent. By discussing various examples, and being aware of the punctuation clues, students can realize the function of the appositive phrase.

**Conclusion**

Other syntactic devices can be explicated in order to aid students' reading comprehension, such as anaphora and placement of modifiers. As with the other syntactic forms discussed, students need first to be shown many examples of the form, with each example discussed and "thought through". Students should be urged to reconstruct the writer's ideas, first retrieving the core idea, and then seeing which ideas are conjoined or subordinated.

Through this method, used in the writer's college reading classes, students can be taught to deal with complex written sentence patterns. Intelligent experience with the patterns is required. However, this is preferable to "writing down" children's reading material. By paying particular attention to these and other conventions of written English, we can expose students to the wide variety and richness of our language. Teachers of reading should become cognizant of the need to help students explicate complex sentence patterns.
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Remedial reading students are unique individuals. They often have poor self-concept and may be frustrated from years of being labeled as underachievers. Often these students become discipline problems and act out their frustrations by assuming the roles of class clown, bully, cool dude, or any one of many character parts which are used to hide feelings of inadequacy. The problems of these students are very real, and the students will use every facade imaginable to cover them up. Typical defense mechanisms include temper tantrums, fighting, flagrant impulsive insults, brooding bouts, and apathy—to cover up feelings of frustration and hopelessness (Mitchell, 1976).

Many reading teachers feel that this sort of student does not want to learn, and they give up on the student because a sad state of hopelessness may have set in. Thus, two individuals are in need of help, the student and the teacher. Can these feelings be sensed by remedial students and actually contribute to lack of achievement in reading? Are there personality characteristics which the teacher should develop which might enhance reading achievement? And, what are the effects of teacher empathy, sincerity, expectation, and classroom atmosphere on the remedial reading student and achievement in reading?

Among the significant people believed to affect children's feelings about themselves are their parents, and, later, their teachers (Davidson and Lang, 1960). The value of a warm, consistent home environment in which parents play a major role cannot be minimized. Motivation is maximized in a stable situation which encourages language and the child's intrinsic motivation to master the environment (Levenstein, 1970).

Teachers, too, should place value in creating warm, consistent remedial reading classrooms so that reading achievement enhancement is not only possible but probable. Classroom climate is increasingly important on the secondary level, where, data suggests, student learning gains are closely related to the general climate of learning that exists. This in turn is linked to such variables as teacher expectation (Good, 1975).

The personality factor of the teacher is an important factor in the type of climate that is established in reading classrooms. Because of the uniqueness of the student who is labeled a remedial reader, the personality of the teacher becomes a major factor to be considered in influencing academic achievement of such a student. Gray said the teacher is the most important factor in promoting progression in reading (1949).
Anyone who has attended school has had a favorite teacher. Perhaps, one liked that teacher because of the content, the class, or simply because of the teacher. There was always something special about that particular teacher. Obviously, there were reasons. Perhaps one of the best ways to describe a good teacher is to consult the students as Hart (1934) did. The purpose of his research was to give ten thousand high school students an opportunity to tell what they liked and disliked about their teachers, that is, what effective teaching was. These students were from sixty-five high schools in all parts of the United States. The students were given an essay type survey in which two teachers were compared, Teacher A and Teacher Z. Teacher A was the best liked teacher, but not necessarily the best teacher. Teacher Z was the least liked. Hart then attempted to find whether Teacher A or Teacher Z was the most effective. If neither Teacher A nor Teacher Z were most effective, the students were to describe how their best teacher differed from A and Z, and call that Teacher H. Samples of the results reported the following in rank order for Teachers A and Z:

**Reasons for Liking Teacher A Best**

1. Is helpful with school work, explains lessons and assignments clearly and thoroughly, and uses examples in teaching  
2. Cheerful, happy, good-natured, jolly, has a sense of humor and can take a joke  
3. Human, friendly, companionable, "one of us"  
4. Interested in and understands pupils  
5. Makes work interesting, creates a desire to work, makes classwork a pleasure

**Reasons for Liking Teacher Z Least**

1. Too cross, crabby, grouchy, never smiles, nagging, sarcastic, loses temper, "flies off the handle"  
2. Not helpful with school work, does not explain lessons and assignments, not clear, work not planned  
3. Partial, has "pets" or favored students, and "picks on certain pupils"  
4. Superior, aloof, haughty, "snooty", overbearing, does not know you out of class  
5. Mean, unreasonable, "hard boiled", intolerant, ill-mannered, too strict, makes life miserable

From the Hart study one can see that the teacher's personality does affect learning. It is interesting to note that four of the five reasons (80%), as noted above, appear to be affective or traits of personality for both Teachers A and Z. Further results are as follows:

1. Three out of four students liked Teacher A best.  
2. One in four students liked Teacher Z best.  
3. Four out of five students said that their most liked teacher taught them most effectively.  
4. Eighty percent said that Teacher A was their best teacher.
5. One half of one percent said that Teacher Z was their best teacher.

6. Twenty-two percent of the students said neither Teacher A nor Teacher Z, hence, Teacher H was their best teacher. (Hart reported that Teacher H was Teacher A minus many qualities like friendliness, good cheer, companionship, and understanding.

Teacher personality and its effect on student achievement have also been reported by Flanders (1965). Student achievement and attitude scores were significantly higher when teachers were indirect. The indirect teacher is characterized by accepting feelings, praising or encouraging, accepting or using ideas of the students, and asking questions. The direct teacher does more lecturing, giving more orders, and criticizing more.

The contention that teacher personality does affect achievement should not be ignored. Characteristics such as enthusiasm for teaching, accepting students and praising them, as well as having a sense of humor have been reported as causal factors in student achievement. Praise, or the teacher comment, is important in achievement because it aids and informs the students that they are accepted (Good, 1975).

Thus, if teachers do exhibit "give up" and hopeless attitudes, these feelings can be sensed by remedial students and may further contribute to underachievement in reading. Harris (1978) has stated that children know when they are liked and also have an acute awareness of hypocrisy. The teacher who does not like a child usually cannot help. The point is well made that teacher personality is crucial, and that teachers can convey acceptance of students in many ways.

Harris (1977) states that one of the main objectives of the remedial reading teacher should be to develop a relationship with children in which they are not afraid they will be scolded, ridiculed or punished. Teachers who are sarcastic, tense, bothered by interruptions, too serious, and always want to be in control will not be successful in remedial reading classes. If remedial students are not motivated, and they will not be with such teachers, gains in reading achievement will be minimal regardless of the teacher's cognitive abilities.

Whatever the type of reading class or grade level, teacher expectation plays another major role in educating children. One must beware of generalizing or carrying preconceived notions into his or her classroom. An example might be the statement "boys do not achieve as well as girls in reading at the primary level." If a teacher enters a remedial reading class with this expectation, then many children may fail in reading. One may also hear the statement "Title I students are not expected to achieve as well as non-Title students." Again, if teacher expectation (teacher bias?) is a predictor of success, then these children may not achieve success.

Not every teacher is a teacher of reading and not every teacher is able to motivate remedial readers. It takes a special person to motivate these students. The teacher must be enthusiastic, possess patience, be optimistic, sensitive, organized, dedicated, confident, intelligent, and knowledgeable (Harris, 1978).


DEVELOPMENT OF A NEW WORD LIST

W. James Popham
UNIVERSITY OF CALIFORNIA, LOS ANGELES

Recent work in the field of criterion-referenced measurement has emphasized the key communicative role played by a test's specifications, that is, the rules employed to generate the actual items used on the test. Sometimes referred to as "domain specifications," since those specifications make operational the domain of behaviors being assessed by the test, the specifications provide teachers with the skill definitions needed to organize their instruction. The more lucid such specifications are, the more likely educators will understand the skill being sought, and the more likely that they will design appropriate instructional sequences.

During the past decade there have been various approaches employed in the construction of criterion-referenced specifications (Hambleton 1978). These approaches range in the degree to which they circumscribe eligible test items, some providing far more restrictions in the content, format, and wording of test items than others. Other than at a very general level, no criterion-referenced test specifications have attacked the readability level of the test items. Yet, the readability of the test's items plays a vital role in clarifying the nature of the skills to be tested.

At best, some test developers have employed traditional readability formulae in an attempt to constrain the reading level of test items. But these formulae were developed for use with extensive written passages, not with the brief sentences and phrases often used in objective test items. Beyond that, there are some substantial shortcomings with readability formulae if one's intent is to clarify rigorously the nature of the skill being tested by explicating the nature of the items measuring the skill.

Procedures for determining the readability levels of written passages have been available for a number of years. Most of these procedures are based on quantifiable factors such as the numbers of words in sentences and the numbers of syllables in words (e.g., Flesch, 1948; Fry, 1968). These sorts of readability formulae usually do not take into consideration a reader's actual familiarity with the words being rated. To illustrate, imagine a very short sentence consisting exclusively of one-syllable, yet obscure words. Since the sentence is brief and the words are short, its readability level as determined by most readability formulae would be low. Yet it may present a difficult reading task even for very skilled readers. Conversely, one can conceive of a fairly lengthy sentence composed
of polysyllabic but very familiar words. Such a sentence, although its readability level is high, would represent a fairly easy reading task for most readers. It is apparent that to get an accurate idea of the readability of a given selection we must attend not only to such structural features as sentence length and total syllables, but also to the words themselves. Most readability formulas offer little guidance in this area. The widely known readability procedure (Dale-Chall) which does incorporate a word familiarity feature employs a list of familiar words which was compiled well over thirty years ago.

The Need for a Basic Skills Word List

In 1979 the staff of a test development agency was faced with the task of devising a set of basic skills tests in reading, writing, and mathematics for the state of South Carolina. These tests were supposed to adhere to clearly defined readability levels. Members of the test development staff discovered that available readability formulas were clearly inadequate for the creation of test items which were at a reading level unequivocally suitable for students at a specific grade level. As indicated earlier, most readability formulae can be applied only to fairly extensive reading selections. Even when grade-by-grade constraints on sentence length and syntactic complexity were set, it was impossible to tie grade level readability unless test developers also relied on a word list. But word lists based on different strategies yield different sets of words. Which word list can be used?

There are three different sources which have been utilized as the basis for word lists. These are (1) the frequency of words appearing in published reading textbook series, (2) the frequency of words appearing in generally read materials, e.g., newspapers, magazines, and books, and (3) readers' reported or tested familiarity with particular words.

Typically, a word list is prepared one a grade-by-grade basis using one of these three strategies. In each approach the assumption is that words more frequently encountered by individuals (or more well known) will be more appropriate at lower grade levels. Yet, although there will obviously be overlap in word lists based on these three approaches, there will also be substantial differences among the word lists generated by relying on each of the three.

The test development staff was not obliged to choose only one approach from among the three strategies, that is, (1) word frequency in reading texts, (2) word frequency in general reading materials, and (3) reader familiarity with particular words. Fortunately, three recently compiled word lists reflecting each of these three strategies were available. By combining the separate word lists, it was possible to assemble a fundamental vocabulary which simultaneously reflected all three criteria. Since its chief use was to be the generation of a set of basic skills tests, the new vocabulary list was so named—Basic Skills Word List.

Development of the Basic Skills Word List

In creating the Basic Skills Word List a series of separate steps were followed in order to create a vocabulary pool which would systematically reflect three criteria. The initial source of words
was the EDL Core Vocabularies (Taylor et al., 1979). This widely used volume contains word lists for each grade from preprimer through 13. These lists (particularly at the lower grades) are based on the frequency with which words appear in nine widely used basal reading textbook series. Typically, if a word appeared in three or more of the textbook series at a given grade level, it was included in the EDL list at that grade level. Thus, this set of words is based on the frequency of usage in reading textbooks.

All the words on the EDL list were checked for their familiarity to children by using Dale and O'Rourke's study, The Living Word Vocabulary—The Words We Know (Dale and O'Rourke, 1976). The authors of this volume determined students' knowledge of commonly encountered words by administering multiple-choice test items to students. Students were given a word and asked to choose the correct definition for it. The Dale-O'Rourke vocabulary provides a "familiarity percentage" for each word listed. This index reflects the percentage of children who answered that word's multiple-choice item correctly.

In order to assign a word to a particular grade level, the authors of the study aimed for each tested word to have a familiarity percentage for a given grade level that was between 67% and 84%. If a word was tested at sixth grade and 66% of the students indicated familiarity with it, the word was re-tested at eighth grade, and words tested at eighth grade receiving higher than 84% familiarity would be retested at sixth grade. The familiarity percentage supplied with each word in the Dale-O'Rourke vocabulary reflects the correct response percentage at the level to which the word was assigned.

The authors of The Living Word Vocabulary did not begin testing words until the fourth grade and, after that, tested words only at alternate grades. Thus, familiarity percentages appear only for grades 4, 6, 8, etc. Therefore, EDL words in grades 1-4 were checked for their familiarity to students according to the fourth grade Dale-O'Rourke familiarity percentages. Fifth grade EDL words were checked against both fourth and sixth grade familiarity percentages. Words in all subsequent graded lists were checked for familiarity ratings at either the grade level at which they appeared in EDL or at a lower grade.

Words that were not familiar to at least 65% of students at a given grade on the basis of the Dale-O'Rourke study were moved to a higher grade level in the Basic Skills Word List. The exact familiarity percentages necessary for an EDL word to be retained at the same grade level on the Basic Skills Word List varied slightly from grade to grade. These percentages were adjusted in order to meet the requirements of a pre-determined word load for each grade. This word load factor will be described subsequently.

The rationale for employing a stringent familiarity criterion was straightforward, namely, that even if a word is found in several reading series at a given grade level, it may still be unfamiliar to many children and should not be assigned to that grade level. The effect of this student familiarity screen was to move some words from each of the graded EDL word lists to higher grade levels.

Grade-Level Word Load

For instructional purposes, it is desirable to allocate words to grade levels on a proportional basis. It would make little sense
to assign 200 words at one grade level and 2,000 words at another. One of the best guides to the determination of an appropriate word load per grade level is the average number of words introduced per grade level by publishers of reading textbook series. These commercially published textbooks, many of them revised more than once, provide an experience-based estimate of how many new words can be reasonably introduced at each grade level. In researching the background for their core vocabularies, developers of the EDL word lists calculated the average number of words introduced at grades one through six for nine different textbook series. These textbook-derived word loads were the following:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Word Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>341</td>
</tr>
<tr>
<td>2</td>
<td>440</td>
</tr>
<tr>
<td>3</td>
<td>708</td>
</tr>
<tr>
<td>4</td>
<td>787</td>
</tr>
<tr>
<td>5</td>
<td>1,063</td>
</tr>
<tr>
<td>6</td>
<td>1,077</td>
</tr>
</tbody>
</table>

The word loads for the Basic Skills Word List at grades one through four were designed to coincide as closely as possible with these textbook-derived word loads. The word loads for the Basic Skills Word List at grades one through four are as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Word Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>341</td>
</tr>
<tr>
<td>2</td>
<td>439</td>
</tr>
<tr>
<td>3</td>
<td>708</td>
</tr>
<tr>
<td>4</td>
<td>785</td>
</tr>
</tbody>
</table>

In grades 5-12, students' familiarity with words, as reflected by the Dale-O'Rourke study, became a major determinant of grade level word load for the Basic Skills Word List. Students at these grade levels displayed insufficient familiarity with many potentially eligible words, thus reducing the word loads—particularly in grades 9-12. The word loads for the new Basic Skills Word List in grades 5-8 are approximately 900 per grade. In grades 9-12 the approximate word load is 400. The word loads for grades 5-12 follow:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Word Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>971</td>
</tr>
<tr>
<td>6</td>
<td>846</td>
</tr>
<tr>
<td>7</td>
<td>884</td>
</tr>
<tr>
<td>8</td>
<td>874</td>
</tr>
<tr>
<td>9</td>
<td>325</td>
</tr>
<tr>
<td>10</td>
<td>407</td>
</tr>
<tr>
<td>11</td>
<td>393</td>
</tr>
<tr>
<td>12</td>
<td>345</td>
</tr>
</tbody>
</table>

The final step in the selection of words for the Basic Skills Word List was based on a massive study by Carroll, Davies, & Richman (Carroll, J., et al, 1971). This study analyzed 5,000,000 running words of text. These five million words were taken from approximately 10,000 samples of 500 words excerpted from textbooks in 17 different curriculum areas in grades 3-9, plus magazines, books, newspapers, and poetry. The result of the study is a list of 87,000 words, accompanied by the frequency with which each of these words shows up in print. Unfortunately, this enormous set of words is listed alphabetically, rather than in the order of each word's frequency of usage. Hence, one cannot readily determine the most frequently encountered words.

Recently, however, Sakiey and Fry have drawn on the 87,000 words to provide 3,000 Instant Words (Sakiey, E. and Fry, B., 1979), a list of the three thousand most frequently occurring words ranked according to their usage in print. Words from 3,000 Instant Words, in order of decreasing frequency of appearance, were added at each grade level of the Basic Skills Word List if they were not already listed. This insured that words which appear very frequently in general reading materials were not overlooked when they did not have a high enough familiarity percentage.
In general, only the root form of a word has been listed in the Basic Skills Word List. The derived form of a word is listed separately only if it is more commonly used than the root form, or if its meaning is significantly different from the root form. Proper names were excluded, as were most proper nouns and sound or movement words such as "meow" or "zoom." Provincialisms and colloquialisms were also omitted. No attempt was made to include terms usually limited to the social, physical, or biological sciences. Common contractions and abbreviations have been included.

When a word appears on the list it is to be taken as its most common usage. At grade levels higher than its listing, a word may be employed in other than its most common usages and as another part of speech.

For teachers and other individuals who want to use the Basic Skills Word List to prepare instructional materials, a list of usage rules has been compiled. These rules indicate the types of changes that can be made to the words listed at each grade level. All the rules for a grade level also apply to all subsequent grade levels. The use of these rules can be illustrated by considering the first-grade rules. If a noun is listed as a grade one word and its plural is formed by adding "s," then the noun's plural form can also be used at that grade level. For example, "boy" is a grade one word. Therefore, both "boy" and "boys" are eligible for use at grade one (and all other grade levels). These rules accompany the published version of the new word list (T0X, 1980).

Instructional Applications

Sets of fundamental vocabulary terms such as the Basic Skills Word List provide grade-by-grade terms which pupils need to master. The more defensibly that those word lists were devised, of course, the better. Having access to such sets of grade-designated words permits educators to diagnose students' word knowledge strengths and weaknesses in a systematic manner. Vocabulary diagnostic exercises can be based on particular grade-level word lists so that teachers can identify students who need additional vocabulary-building instruction.

Such word lists also provide a set of words to be fostered in classroom vocabulary-building activities. Teachers can focus their efforts on promoting student mastery of a basic vocabulary judged to be suitable at the student's own grade level. Remedial instruction can deal with sets of words designated as appropriate for earlier grade levels.

Teachers can also use these sorts of word lists as a tool to gauge the readability of instructional materials, either those distributed by commercial publishers or those developed locally. If such materials appear to reflect a vocabulary level not consonant with the grade level at which the teacher is teaching, then the grade level of questionable words can be quickly ascertained through the use of such word lists.

Use of Word List in Test Related Settings
Teachers might employ word lists as definitive vocabulary guides which may prove valuable in instructional design or development of tests. In situations where the basic skills tests that are being employed have been constructed according to the requirements of a particular word list, teachers will have a clear idea of vocabulary constraints placed on test items. By consulting the readability limits placed on test items for a particular grade level, teachers can get a precise fix on all the eligible words which can be used in test items for their students. During instruction, therefore, teachers can stress those specific words so that students will become conversant with the full range of eligible words.

In settings where no tests based on a particular word list have been prescribed, educators may wish to create their own tests which rely on a given word list, thus delimiting the eligible sets of words that students should master.

Clearly, the optimum dividends to be secured from use of any basic skills word list arise when testing is coupled with teaching. Tests which are carefully constructed to reflect specified readability levels provide teachers with defensible instructional targets since all words that are "fair game" will have been identified. As a consequence, teachers who promote their pupils' familiarity with the stipulated sets of words will be giving those pupils an optimum opportunity for success on the tests. A student's mastery of a particular intellectual skill will not be obscured by a test item's use of terms unfamiliar to that student. An equitable testing system will have been created. More importantly, perhaps, instruction will have been installed which is attuned to the test instruments that are employed to assess that instruction's effectiveness.

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For more years than I care to count, round-robin oral reading has been a part of classroom instruction. When Dolores Durkin (1978) sought to study instruction in comprehension, one of her findings was that round-robin oral reading was common during the reading and social studies lessons. Oral reading was often poor under these circumstances—children stumbled over hard-to-pronounce terms, read in a monotone, and were often difficult to hear (1978, p. 32). Round-robin oral reading, for the uninitiated, is a procedure that has students in a reading group taking turns reading orally. This reading may follow silent reading or may be done at sight. Although basal readers are usually used as the reading material, I've also seen round-robin reading take place with weekly news magazines and content area books. This situation is deplorable and there is no support in the literature for such a practice.

An Example

Let's assume that a teacher has a reading group of six students who meet for about twenty minutes each day. The bulk of this time is spent having students read orally. During the time that one student is reading, the others are supposed to follow along in their books. Although some students do follow along, others daydream, lose their place, read ahead (especially if it's a good story), correct words the reader miscalls, poke another member of the reading group, or fall off their chairs while trying to balance on two legs. The range of possible behaviors is alarmingly broad. In addition to these difficulties, the teacher is often disrupted several times by one or more students in the class who have questions about their seatwork activities which include workbook pages, ditto sheets, and other "independent" assignments. After visiting over fifty classrooms in recent months, I know that what I've just described takes place in many classrooms.

Why the Practice Persists

Teachers have offered many reasons for round-robin oral reading, the most common one being that it provides an opportunity to check each child's progress in reading. But what is actually being checked, in most instances, is the child's ability to pronounce words. The child merely reads several sentences or paragraphs while the teacher or other students focus on words that are mispronounced, omitted, or added. Typically, no attention is given to the child's understanding of the material. Having students read orally in order to check their progress in reading is a laudatory practice; however, I question the manner in which it is ordinarily accomplished. This tradition dies hard in the schools.
Why the Practice Should Be Changed

There are several important reasons to change this traditional "instructional" method. For the most part, instruction is not taking place during round-robin oral reading. Only one student at a time is actively participating; moreover, participation of this sort is a questionable educational practice. Because many students are put "on the spot," they may become frustrated or upset. Favorable reading attitudes are unlikely to be fostered in such situations. Finally, the activities in the reading group frequently become misdirected as students focus on pronouncing words and/or correcting the reader's miscues regardless of their significance. But what should teachers do? After all, the practice has been in existence for years.

A Simple, Practical Solution

Let's take the same reading group of six students who spend about twenty minutes a day reading orally. Instead of meeting the children as a group, the teacher would have each student read to him/her on a one-to-one basis. Such a practice would enable the teacher to give each student about three minutes of individual attention. During these few minutes the teacher could check their ability to call words, note difficulties, and perhaps ask some comprehension questions. Without taking any more time than was traditionally spent in the reading group, the teacher could deal with each student individually and still accomplish the major purpose of assessing each child's oral reading. Such assessment need not take place on a daily basis. It can be restricted to those time when the teacher has good reason to believe that the assessment of oral reading behavior is warranted.

Worthwhile Activities for the Reading Group

When the teacher eliminates round-robin oral reading from reading group activities, that time can be redirected to more worthwhile pursuits. Meaningful activities preceding the reading of the story include: 1) helping students relate their knowledge to the selection to be read; 2) developing interest in the selection; 3) building the concepts necessary for understanding the selection; 4) introducing new vocabulary; 5) helping students set purposes for reading; 6) developing hypotheses about what might happen in the story; and, 7) guiding silent reading.

After the story has been read, the group should discuss it. Teachers can ask a wide variety of questions that tap stated and implied information. Students should be encouraged to react to the story by evaluating characters and their actions. Meaningful oral reading may include having students read a sentence or two which help support their answers to comprehension questions. Other students can orally interpret the way a character in the story might have said something. During these types of readings, other students should merely listen; there is no need for them to follow along in their books.

Conclusion

Round-robin oral reading, as it is commonly practiced in today's classrooms, is merely a vehicle for assessing accuracy in calling
words. Such a purpose can be better achieved on a one-to-one basis between teacher and student.

The origin of the term "round-robin" oral reading has never, to my knowledge, been clearly documented in the literature. That's fine with me because round-robin oral reading isn't for kids. It's for the birds.

References
THE 'VIRTUES' OF ROUND ROBIN READING

Timothy C. Standal
UNIVERSITY OF WASHINGTON

John C. Towner
WESTERN WASHINGTON UNIVERSITY

The goal of education is preparation for life. The goal of literacy training is preparation for education, not just formal education but life-long education, education in the broad sense. School practices which contribute to this process of education for life should be widely accepted, even applauded. But they aren't, or at least, not all of them are.

A ready example of such an educational practice is the much maligned technique of round robin reading. Round robin reading, as is well known, is the practice of having one child in a reading group (or whole class) read aloud while the others follow along in their books. Each child is given his/her turn in some predictable fashion. That is, the oral reader reads a paragraph or page and so on around the group until everyone has had a turn. What could be more democratic? Everybody, without regard to skill, gets a chance at the spotlight.

Now, this practice has been condemned for any number of fanciful reasons; reasons which need no detailed review here. The fact is that this practice is so well-keyed to education as preparation for life that we felt it imperative to speak up on its behalf. Consider these virtues of round robin reading.

1. It is stultifyingly boring. At first blush, you might say that's hardly a virtue. But, consider this. Can we say we have adequately prepared students for life if we have not exposed them to boredom? Have not given them the opportunity to be bored beyond belief and not show it? Have not given them opportunities to develop tolerance? Reflect upon your own lives—how frequently are you bored but dare not show it? Aren't you glad you learned to hide your boredom in school? If you are one of the lucky ones who were exposed to round robin reading early and frequently—the lessons you learned in those reading groups have served you well for years. Be thankful.

2. Round robin reading teaches one-upmanship. The child reading orally comes to a word that s/he doesn't know or mispronounces. Suddenly, there appears a forest of waving hands. The teacher says, "Who can help Robert(a) with that word?" There are numerous positive rewards in this situation. First, the child whose hand was first up has the satisfaction of knowing that s/he was the first to spot the mistake or impending breakdown. This alert child is thereby immediately rewarded for his/her alertness. Second, the child who gets to "help" Robert(a) is uniquely rewarded. Can there be a greater joy in life than the implicit put-down under the guise of assistance? Third, of course, is
Robert(a). Robert(a) learns not only a lesson in humility but also lessons in vigilance and the virtue of precision. Nobody would want to have very many of these mistakes on his/her record and, so, will work even harder to avoid them in the future.

3. Round robin reading teaches the virtue of being prepared. When the teacher moves from reader to reader in some predictable and consistent pattern, alert children can learn much. First, pattern recognition, which can be an invaluable aid on any number of standardized tests. Second, arithmetic. They should be able to count the readers ahead of them, count the paragraphs to be read, and thereby locate whichever part they must read. This allows the alert student to check his/her portion of the reading for any "trouble-makers." If trouble-makers are found, the student then has the time to try to puzzle them out. Of course, the wise teacher wants to take advantage and augment virtues such as this. Thus, s/he occasionally (not too frequently—it mustn't be abused) does a fast change-up by having one child read more than his/her predictably allotted share or skipping a reader or something. This teaches rapid retrenchment as well as introducing an element of suspense. Virtue number three leads naturally to virtue number four.

4. Round robin reading teaches children the virtue of appearing alert when they are not. The child who is practicing virtue number three above knows that s/he must not appear to be doing so. Therefore, a certain amount of stealth is called for. Can anyone underestimate the worth of this ability in real life? In meetings, in conversations with colleagues, in conversations with spouses, students, children—we draw heavily upon it. Those who learned it early and learned it well are, we suspect, even now our leading politicians.

5. Round robin reading eliminates (or diminishes) eye-voice span. Eye-voice span (Buswell, 1920) is the phenomenon of the eye being some number of letter spaces ahead of the voice in oral reading. That is, the words being spoken by the oral reader are not the words that the reader's eyes are trained on at that moment. We submit that the EVS, as it is called, is probably not a good thing. In fact, we find it faintly un-American. It seems to us that a reader should be looking at whatever word s/he is speaking. Round robin reading, during which the followers—along concentrate on the words as they are being read, would seem to go a long way toward eliminating this pernicious habit.

6. Round robin reading teaches inference skills. In round robin reading, the story line is often overlooked to the extent that even the most clearly stated information is obscure. This gives children the opportunity to make substantial use of the skills of inference in order to create any sense whatsoever out of the story. This skill is especially important in the case of the teacher who mixes questions about the story with round robin reading. We should point out here that too much concern about understanding what is read can nullify many of the virtues of round robin reading. Consider how valuable these inference skills can be in later life, for example, when reading government documents.
The virtues of round robin reading we have listed here are, we are certain, not a complete listing. Nonetheless, we feel they are powerfully persuasive. Given the relatively high frequency with which round robin reading is practiced, we believe many teachers are well aware of these and other virtues. If you wish your students to have the experiences and opportunities we have described, then extensive use of this heretofore unfairly criticized technique is for you.

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PERCEPTUAL AND PERCEPTUAL-MOTOR TEST SCORES ARE NOT A CLUE TO READING ACHIEVEMENT IN SECOND GRADERS

Dr. Jean R. Harber

DUBNOFF CENTER FOR CHILD DEVELOPMENT AND EDUCATIONAL THERAPY
NORTHRIDGE, CALIFORNIA

Recent studies have questioned the effectiveness of perceptual training programs in remediating reading difficulties (Cohen, 1969; Hammill, 1972; Larsen & Hammill, 1975; Mann, 1970). Gupta, Ceci, and Slater (1978) present two possible explanations for the apparent failure of these programs. It could be that the programs have not effectively trained children in those perceptual-motor skills in which they are deficient. On the other hand, it could be that poor readers simply do not suffer from perceptual-motor handicaps and therefore do not need nor benefit from these types of training.

There is recent empirical evidence which supports the second explanation. Larsen, Rogers, and Sowell (1976) and Harber (1979) compared the performance of normal and disabled learners on numerous perceptual and perceptual-motor tests and found that the two groups did not show educationally significant differences on these tests. Other researchers have also argued that factors other than perceptual difficulties may be responsible for poor reading performance (e.g., Vellutino, Steger, Moyer, Harding, & Niles, 1977; Wallace & Goldsmith 1977). Lakey and McNees (1975) and Lakey and Lefton (1976) studied good and poor readers' performance on visual matching tasks. They asked their subjects to select from a number of alternatives the individual letters, words, and strings of letters of varying lengths, or strings of squiggles which were identical to the stimulus items. They found that as the length of the strings increased, so did the difference between the performance of groups of poor and good readers. (Lakey & Lefton, 1976)

Gupta et al (1978) hypothesized that the differences reported by Lakey and Lefton may be due to differences in cognitive, rather than perceptual, strategies. They suggested that good readers perform better than poor readers because they are able to use their verbal skills to facilitate performance on tasks frequently labeled as perceptual. In order to test their hypotheses, they conducted two studies. In the first study, they investigated the performance of groups of good and poor readers on a matching task which contained letter strings of variable length and on a matching task which contained abstract figures. Their findings showed no differences between good and poor readers on the abstract figures task, but significant differences between the two groups on the letter strings task. They interpreted these findings as indicative of subjects' use of non-perceptual (i.e., verbal) strategies to aid in the matching of letter strings. In the second study, they administered three matching tasks, one containing nonsense shapes; one, strings of consonants; and
one, pronounceable letter strings, to good and poor readers. They found that the nonsense shapes task did not differentiate between the two groups. However, the more closely the task approximated words, the larger the differences between groups. Their results appear to support Bridger's (1970) caution that the role of higher cognitive functions should be ruled out before it is assumed that a deficiency in perception exists.

The research findings reviewed above suggest that the reason poor readers may not benefit from perceptual training programs may be that they already possess the very skills educators are attempting to develop, and do not need this training. The present study attempts to further clarify this issue by determining whether children who are achieving at various reading levels score differently on perceptual and perceptual-motor tasks.

What Was Tested

One hundred and four second graders (mean chronological age = 90 months; mean intelligence quotient = 109) served as subjects in this study. The Reading Recognition and Reading Comprehension subtests of the Peabody Individual Achievement Test (PIAT) (Dunn & Markwardt, 1970) were administered to all the subjects in order to determine their reading achievement levels. The Reading Recognition subtest includes visual discrimination of letters and words, naming of letters, and oral reading of single words. In the Reading Comprehension subtest the child reads a sentence silently and then chooses from four illustrations the one that best represents the meaning of the sentence just read. A composite reading score was determined for each subject by summing the obtained raw scores on the Reading Recognition and Reading Comprehension subtests. Three groups were formed on the basis of the composite scores. The mean raw scores were: low group, 40; middle group, 50; high group, 68.

The Motor Free Visual Perception Test (MFVPT) (Colarusso & Hammill, 1972) was used to measure visual perception. The MFVPT is a multiple choice test on which subjects respond to test items by pointing to the correct one of four alternatives for each item. The MFVPT was selected for use because it assesses visual perception without involving motor ability.

The Developmental Test of Visual-Motor Integration (VMI) (Beery and Buktenica, 1967) was used to measure perceptual-motor integration. The VMI consists of a series of geometric forms arranged in order of increasing difficulty to be copied by the child.

Data were analyzed utilizing separate one-way analyses of covariance (ANCOVAs). Intelligence test scores and chronological age were the covariates. ANCOVA procedures were used in order to compare the performance of the three groups of readers on the perceptual and perceptual-motor tasks without the possibly contaminating influence of intelligence and age. Tukey HSD comparisons were computed in order to determine which differences were significant.

Findings

The results of the ANCOVAs indicated that there were statistically significant differences among the three groups in performance on the perceptual and perceptual-motor tasks (F = 18.87, p < .0001,
MFVPT; $F = 19.29$, $p < .0001$, VMI). The results of the Tukey HSD test indicated that on the MFVPT the difference between the middle and high groups was significant at the .05 level and the difference between the low and high groups was significant at the .01 level (see Table 1). On the VMI the only difference which reached significance was between the low and high groups (.05) (see Table 2).

Table 1
Tukey HSD Test for Differences
Among Groups on the MFVPT

<table>
<thead>
<tr>
<th></th>
<th>$\bar{x}_1$</th>
<th>$\bar{x}_2$</th>
<th>$\bar{x}_3$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\bar{x}_1$</td>
<td>24.35</td>
<td>1.49</td>
<td>5.70**</td>
</tr>
<tr>
<td>$\bar{x}_2$</td>
<td>25.84</td>
<td>-</td>
<td>4.21*</td>
</tr>
<tr>
<td>$\bar{x}_3$</td>
<td>30.05</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

** $p < .01$  * $p < .05$

Table 2
Tukey HSD Test for Differences
Among Groups on the VMI

<table>
<thead>
<tr>
<th></th>
<th>$\bar{x}_1$</th>
<th>$\bar{x}_2$</th>
<th>$\bar{x}_3$</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\bar{x}_1$</td>
<td>11.15</td>
<td>-</td>
<td>3.42*</td>
</tr>
<tr>
<td>$\bar{x}_2$</td>
<td>12.35</td>
<td>-</td>
<td>2.22</td>
</tr>
<tr>
<td>$\bar{x}_3$</td>
<td>14.57</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$

At first glance, it appears that children of varying reading performance levels scored differently on perceptual and perceptual-motor tasks. However, further study of the obtained data suggests otherwise. As was pointed out by Larsen et al (1976), it is important that the results obtained be viewed in relation to their educational significance. The question of whether a difference of several points between the groups of children of varying reading levels constitutes a sufficiently large discrepancy to justify providing specific educational programming must be seriously considered. It is unlikely that these differences would be very useful when applied to large
groups of children. The examination of each child (both through observation during testing and through error analyses) needs to be considered individually to determine whether any educationally valuable information can be inferred from the testing (Larsen et al., 1976). The findings of this study considered in conjunction with the findings of previously reported research (e.g., Harber, 1979; Larsen et al., 1976) cause the writer to seriously question whether specialized perceptual and perceptual-motor training can be justified. It is further suggested that remediation should focus on specific reading skills rather than on perceptual training.

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PUT YOUR TWO BOTTOM READERS IN YOUR TOP READING GROUP

Patricia M. Cunningham

Wake Forest University, Winston-Salem, North Carolina

About a month ago I received a phone call from a parent. The parent described a fairly typical situation. She had a sixth grade boy who was placed in the fourth grade reader. She was particularly concerned because this was the third year that her son had been placed in the same book and, according to reports from the teacher, the boy was not making any progress. She requested that one of the students from the university do some tutoring with her son. That afternoon, when I met my reading methods class, I asked if someone wanted to tutor a sixth grade boy who was reading a few years below grade level. A student volunteered. I explained that, according to the mother, this was the boy's third time through the book, suggesting that the first thing to find out was whether or not the boy could read the book.

"Simply open the book to several places in the middle and have him read these pages to himself. After he has read a page, ask him to tell you what he has read," I told the tutor. "If recall is fairly limited, ask him some specific questions to see whether or not he can answer questions about what he has read. Finally, listen to him read the page and make a count of the number of words which he call incorrectly or which he is unable to pronounce at all."

I warned the tutor about smart errors. "Remember that all fluent readers make 'smart errors' as they read. This is, they read can't for cannot. They might read 'the old house was in a rundown condition' when the sentence said 'the old home was in a rundown condition.' These errors are made by all readers, and reflect the fact that during fluent oral reading the eyes stay four or five words ahead of the voice. This eye-voice span is what allows readers to read with expression, and 'smart errors' are made because the reader sees and interprets the appropriate word, the word actually printed on the page, but then in reading it aloud, translates it into a more familiar way of saying it. On the basis of how he reads these pages, decide whether the book is appropriate for him."

The tutor went off and came back a week later. She was quite distraught. "I had him read in that book," she reported. "After he read silently, he could tell he almost nothing about what he had read and could answer very few questions. I then had him read aloud and kept a count of the number of errors he made. In the first hundred words on one page he made over 25 errors. And this is in a book he has already read twice! I can't understand it," the tutor sighed.

Finding out that this sixth grader was on frustration level in the fourth grade book he was reading for the third time was
a surprise to the tutor, but it was precisely what I had expected from the limited information given me by the mother. I reminded the student, "Don't you remember when we talked about placing the students on the appropriate instruction level? I told you that one of the few things we could count on in reading was that when students are placed above the level where they can read most of the words and comprehend most of what they are reading, they will not progress."

I reminded my volunteer tutor of the analogy between frustration level and a ladder with several rungs missing. If you need to climb a ladder and there are no rungs missing, you just climb the ladder with no trouble at all (independent level). If, however, that ladder has one rung missing, you can probably climb it with some extra effort and a boost from somebody. A ladder with one rung missing (instructional level) can still be climbed. Imagine now that the ladder has two rungs missing. It is probable that a few could make that leap across the space of two missing rungs. However, if the ladder was the only way to enter a burning building in which there was someone you cared very deeply about, you might still be able to put forth the herculean effort and somehow cross the two missing rungs. Now a ladder with three missing (frustration level) rungs is useless to you no matter how motivated you might be to climb that ladder. We conceptualize frustration level as the level of material which is so far above the student's decoding ability or conceptual level that the student cannot read that material with comprehension no matter how hard the student or the teacher tries.

"But, he has been in that book for three years!" the tutor said. "Exactly," I replied. "And his instructional level is probably where it was three years ago." I then provided the tutor with some high-interest, low-vocabulary materials at second and third grade level and told her to find the student's appropriate instructional level, the level at which he could read orally and not make more than four or five dumb errors per one hundred words, and the level at which he could understand a good deal of what he had read. "Find the student's instructional level and begin there," I said, "and explain to the mother why you cannot tutor him using the frustration level book. If you get a chance, you might also go and talk to the teacher," I suggested. "Tell here that the reason he is not making progress in spite of three years spent on this book is that it is at frustration level."

"I don't understand it," the tutor remarked. "His teacher is one of the graduates from our program." That information—the boy's teacher was a graduate from our program—was the final blow.

"Talk to her. Tell her my advice is to put him into the top reading group." The tutor looked at me as if I had lost my mind.

"Whatever for?" she demanded. "Because" I responded, "he's on frustration level reading the fourth grade book and he's not going to get any better as long as he remains on that level. He might as well be placed in the top group which is probably reading in the sixth grade book. He would still be on frustration level, but at least his self-concept would be enhanced by being placed..."
with the top readers. In fact," I told the student as she exited my office, "I'm going to write an article called 'Put Your Two Bottom Readers In Your Top Reading Group.'"

This year I have been working in three high schools attempting to help the teachers of low level English classes teach their basic students reading and writing skills. In classroom after classroom, I find ninth, tenth, eleventh, and twelfth graders reading at third, fourth, and fifth grade levels. "How can it happen?" the English teachers ask me. "How can they get here? And after all those years of reading instruction in the elementary and middle grades, if they haven't learned to read any better by now, what can I possibly do about it?"

While I don't know the history of these high school students who read so far below grade level, my guess is that in most cases these students were the lowest readers in their classrooms. When they went to fourth, fifth, and sixth grade, their teachers probably had three reading groups. The top reading group doubtless read in a grade level book, the next group read in a book a level below. The bottom reading group probably read in a book two or three levels below grade level. Consequently, in most fifth grade classrooms one finds a group of children reading in the fifth grade level book, a group of children reading in the fourth grade level book, and a group of children reading in the third grade level book. If you sat down with each of the children placed in the third grade book and individually administered an IRI to determine each pupil's appropriate instructional level, you would probably find, out of seven children, three of them in the third grade book actually testing on an informal reading inventory at the third grade level. One child may read at the third grade level, another child may read at the second grade level, and the other two children (boys?) may read at the second grade level and the first reader level. All seven of these children are placed in the third grade book and then go into the second grade book. This is probably the only reading that these fifth graders do that is even close to instructional level. Their science and social studies books are at frustration level. It is most unlikely that they ever pick up a book and read it just because they enjoy reading. Thus, they possibly never read anything at an independent level, a level where reading is so easy you don't have to work at it.

At the end of fifth grade, if you tested these children again, you might find that the three children reading at the third grade level and the child reading at the second grade level have indeed increased their reading instructional level to that required by the fourth grade book. When they go to sixth grade and are placed in the fourth grade book, they may continue to increase their reading abilities and instructional level. Now the one child who was at the second grade level and was placed in the third grade book may have moved up to the fourth grade instructional level, if he was especially motivated and worked extra hard, if his teacher provided him with extra help, or if his parents helped him at home or rewarded him in some way for doing well in reading. That boy was trying to climb a ladder with two rungs missing. It can be done but requires great effort as well as a boost from a friend.

What about the boys whose instructional levels were second grade and first reader? What do you expect to find their instructional
level to be when they are tested in June? If you guessed 2(1) and first reader, you are likely to be right. Placed all year in reading material with three rungs missing on the ladder, these two boys could not make any progress up that ladder. They would have been better off spending the year in the top group. Their reading level would probably not have improved but their self-concept might have.

At this point, you are saying to yourself, "She can't really mean that I should put my two bottom readers into my top reading group." You may be feeling some resentment because you suspect that I am going to suggest forming an additional reading group for the two boys. "Does she know how hard it is to meet with all the different groups and teach all the subjects an intermediate teacher is required to teach? Has she ever been there?" Questions such as these may be occurring to you, plus a few you are too kind to express.

The solution to the problem of putting all children on their appropriate instructional levels for reading instruction is one of the most difficult problems teachers face. No teacher can effectively teach four or five different reading groups each day and do an adequate job of teaching the other subject areas. There are some adjustments, however, which can be fairly easily integrated into most classrooms and which will result in all children reading materials at the appropriate level at some point in the day. I am offering five suggestions in hope that most intermediate teachers will find they can successfully implement one or two of them.

1. Have a daily time for Uninterrupted Sustained Silent Reading. Much has been written in recent years about the need for children to practice their reading skills. The concept of having a time every day when each child chooses something to read is especially important for those students whose reading level is far below grade level. If a teacher rounds up books and magazines on a variety of reading levels (including some highly interesting books written at low readability levels), if the teacher enforces the rule that everyone reads (teacher included) and if the teacher sees to it that no stigma is attached to reading the easy books, low readers will eventually begin to choose materials they can read. The teacher can then feel confident that for at least a few minutes each day, the low readers are not reading material at their frustration level. (For more information about how to start and keep a USSR program going, see Hunt, 1971, and Gambrell, 1978.)

2. Determine the instructional levels for all students placed in the low reading group. You will doubtless have a range of several levels (book 1, 2(1), 2(2) or 2(2), 3(1), 3(2) for example). Plan your week's instruction so that some of the time is spent in the book at the highest level and some of the time is spent in the book at the lowest level. While the lowest readers will be on their frustration level in the highest books, they will be at instructional level some of the time. Don't worry about the students who can read in the highest level books. When reading the easier books, they will be getting some practice at independent level. Since low readers do not like to read, they seldom read on their own and thus get almost no practice in independent level material.
3. If your group consists of readers at several different levels, follow the instruction for skills outlined in the lowest level book. For many poor readers, their mastery of reading skills is below the level at which they can read and comprehend. Carry out the skills instruction using the lowest level manual with the entire group. For actual reading in the book, divide the group according to reading level. Meet one day each week with each reading level group. Introduce stories to be read, including vocabulary and purposes and do follow-up activities for stories read during previous week. A teacher who has a group consisting of students at the 2(1), 2(2) and 3(1) levels might organize his/her week as follows:

**Monday** Meet with whole group for skills instruction for 30 minutes. Assign skills practice work for completion while meeting with other groups.

**Tuesday** Meet with students in 2(1) book. Check on reading assigned last Tuesday. Introduce vocabulary and set purposes for stories to be read Wednesday and Thursday.

**Wednesday** Meet with students in 2(2) book. Check on reading assignment of last Wednesday. Introduce vocabulary, set purposes for stories to be read Thursday and Tuesday.

**Thursday** Meet with students in 3(1) book. Check on reading assigned last Thursday. Introduce vocabulary and set purposes for stories to be read next Tuesday and Wednesday.

**Friday** Meet with whole group again for skills instruction.

4. Do a listening-reading transfer lesson each week. Select a story to read to students which lends itself to the purpose you wish to set for listening/reading. If you want to help students to follow the sequence, choose a story in which order is important. To develop the concept of characterization, choose a story which has intriguing characters. Mystery stories are natural vehicles to help students draw conclusions when they are interrupted at a crucial point and students are asked to predict before hearing the conclusion. During the listening portion of the lesson (which may take all of the reading instructional time for one day), read the story to the entire group and lead them through the particular comprehension activity. If you are doing a lesson on sequence, you might want to tell students to listen and "pay particular attention to the order in which important events happened." After listening, ask students to list the important events, then help them to reorder their list. For a lesson on characterization, you may want to brainstorm a list of words which describe people before listening to the story. After hearing the story, students can select from their brainstormed list the words which describe the character in question and come up with descriptive words which suit the character perfectly. The reading of the mystery would be stopped while students wrote down possible conclusions, then the story would be completed and predictions verified or rejected. On the following day, students do exactly what they did after listening except that they read a different story. A story is selected from the appropriate book for each level. Students are asked to read the story and do exactly what they did yesterday after listening. Following the listening
for sequence lesson, students would read and list the major events and reorder them. Following the listening for characterization lesson, students would read the story, select adjectives from the list brainstormed for the listening lesson, and add appropriate adjectives. To practice drawing conclusions, students should stop at a certain point and make predictions before continuing to read to verify predictions. In a listening/reading transfer lesson, students learn and practice what they are required to do while working with the easier listening mode. When they are asked to do the same task after reading, they understand their purpose for reading and are able to carry out the task more independently. (For more details about listening/reading transfer lessons see Cunningham, 1975.)

5. Let your lowest readers listen to a tape of a book at their instructional level. They should read along with the tape until they can read the book independently. This strategy, called imitative reading, allows students to read at their level with little assistance from the teacher except for making or finding tapes and checking to see that students can read one book before going on to the next. (For more details, see Cunningham, 1979.)

There are some problems inherent in trying to place students in books at their instructional level. This is especially true of the basal readers currently in use which, as Bradley and Ames (1977) demonstrated empirically and most of us suspected, have a great deal of variability of difficulty level within each book. In spite of this intrabook variability, it is apparent that in many classrooms, the lowest readers are placed in below-grade-level books which they still cannot read. Arnold and Sherry (1975) found that the disabled readers referred to their reading clinic were placed in below-level books in their classrooms, but that their fifth graders who read at the 2(1) level according to clinic estimates were, on the average, placed at 3(2) level in the classroom.

All teachers have a nearly impossible-to-perform job description. Intermediate teachers find it especially difficult to place all students on the appropriate reading level because there are so many different reading levels in each classroom and because they have the responsibility for teaching all subject areas.

In this article, I have tried to suggest ways of adapting instruction so that the lowest readers do some reading each week at their instructional levels. If you cannot implement any of the suggestions I've made, and cannot think of alternative ways of providing appropriate reading materials, my original suggestion still stands. "Put your two bottom readers in your top reading group."

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The children arrive at the reading lab, exclaiming in a mixture of Navajo and English, expressing their enthusiasm, when they see the filmstrip projector and the tape-player ready for use. Some of them rush to the tape-player to read the title of the story from the cassette. Others try to obtain a copy of the text for the story. Once the lights are turned off and the viewing screen pulled down, the presentation will be interrupted only by the flipping of pages as the students watch, and read along.

Bilingual children, like all children, enjoy and benefit from learning activities which provide the promise of success and achievement. When children begin to understand more fully what they read, an impetus can begin for them to learn to enjoy what stories and books contain. This paper will present learning needs that are specific to bilingual children which may interfere with their understanding of what they read, and then describe a few instructional activities in which audio-visual stories were used as pre-reading activities to increase student understanding of English text.

Teachers of bilingual children are aware of the learning needs of these children when teaching them to read English text. In many cases, they fail to profit from the readily-available published materials and activities that work so well for English speaking children (Saville-Troike, 1978). The linguistic and cultural communities in which bilingual children have developed are the two basic factors responsible for their learning differences. In the classroom, they are taught with reading materials that contain many concepts and experiences which are unfamiliar to them and are coded in a language different from their first language. Ching (1976) points out that differences in the syntax, phonology, and meaning vocabulary of bilingual children's first language can interfere with their understanding of English text.

Once they have gained some fluency in English, however, these children still may fail to grasp securely the meanings that exist beyond the written English code. The experiences bilingual children have had in their native, social community may contrast with the experiences being portrayed in text. Simply translating the code into a recently attained language such as English may not be sufficient for them to understand and appreciate an author's intended meaning.

The cultural values depicted in published reading materials,
intended for children in America's mainstream, are often foreign to, and may conflict with, traditional values of bilingual children. For example, a story that depicts the competitive personality and great achievements of a sports hero may convey only a portion of the intended meaning to Native American children. This could be especially true for those children who possess the traditional values of a cooperative, non-competitive life-style that guided their survival under extremely harsh conditions for hundreds of years (Burgess 1978).

John (1972) reports that the learning and response styles of bilingual children can conflict with teachers and their methods. Expected student behaviors, basic to American schooling, can contribute to confusion, dismay, and failure in school for many bilingual children. Classroom practices of oral recitation, competition for good grades, and the push for individual achievement are distant from and alien to the ways in which some bilingual children learn to perform duties at home. Phillips (1970) provides an example of how some Native American children learn from older relatives. When learning to do household tasks, Warm Springs Indian children are expected to observe adults perform the task by patiently and silently watching the elders. At a later time, an older relative will work with and gently supervise a child as he/she attempts to do a portion of the task. Next, the child tries to complete the chore on his/her own, away from adult supervision so that this period of learning is one of self-assessment and away from the anxiety of possible failure. In contrast, many American children learn at home with the omnipresent assistance of verbal direction from their elders and step-by-step supervision. Similarly, the classroom demands continual assessment and supervision of these children. They are asked to demonstrate individual competence each day under the observation of teachers and peers.

Bilingual children may fail to respond adequately to regular reading instruction and materials for a variety of reasons. Their understanding of the English in these materials can be limited, due to their limited experience with English, and their variant cultural values, experiences, and learning styles. Normally available reading materials, by themselves, are not enough.

As a teacher of reading to bilingual Navajo children, I found these characteristics to be valid for many of the upper-elementary students in my classes. With the help of intensive reading instruction, my students mastered the skill assignments of word recognition, word identification, and comprehension. However, they had great difficulty, in large part, applying comprehension skills to text of any substantial length. For them, the reality of reading books and stories was limited to pronouncing the written words but understanding little of the meaning therein. In an attempt to rectify this situation, the author developed activities which he found to be appropriate to their cultural needs and interests, and their less than fluent English skills.

The activities contained two common steps. First, students would observe and listen to an audio-visual presentation of a story for children. The media forms of filmstrips, slides, photographs, and posters were used, in variations of the activity, to illustrate
the story. Commercially available or teacher-produced cassette tapes were used to present the narration of each story. The verbatim text of each story was also made available for the children to follow during the audio-visual presentation. Once the "show" was completed, students were directed to read the written text of that same presentation, the second and final step of the activity. Stories and text were selected according to the reading ability and interests of the children.

In one example of this activity, children were directed to watch and listen to a filmstrip/cassette story that presented an Apache Indian myth. Since no text came with the audio-visual components, a classroom aid transcribed a text from the cassette tape. As the story was shown to them, the children followed along in the text. The presentation completed, the children re-read the story on their own.

After some weeks of participating in activities of this type, the children began to read other stories, not connected with the presentations, on their own. Their increased enthusiasm and interest in books attested to the motivational influence of the pre-reading activities, their comprehension also developing as evidenced by their independent completion of the stories they were reading. This dramatic change in their reading behavior leads us to the following reasons why audio-visual media may be an effective tool for increasing comprehension.

First, it is suggested that the visual presentation of the story gave these Navajo children a clear representation of characters as well as actions and ideas that were in the text. For example, in the story Danny and the Dinosaur by Syd Hoff (1958), children were shown in the kind of urban surroundings in which the story took place. For them, the visual form was of enormous value in understanding the story. Their comprehension of such stories, then, was not completely dependent upon their recently-attained knowledge of English. Levin and Pressley (1981) state that illustrations can provide the reader with a "very simple, concrete framework for organizing the incoming passage content (p. 53)." The visual media used in these activities helped the children impose structure upon the verbal message of the stories. Petty et al (1976) and Sinatra (1981) note also that children who are learning English as a second language need this extra dimension to aid their comprehension of spoken and written English.

Second, it is suggested that hearing and seeing a story prior to reading enabled the students to read the same story later with a greater feel for the language of a particular story. They may have experienced greater understanding of a story because the presentation, with the text, developed much redundancy in pronunciation, word meaning, and story plot. Goodman (1972) likewise proposes that reading and understanding text is making successful predictions of the text's graphic, syntactic, and semantic information. These children had improved understanding because they 1) knew what would happen in the story, 2) heard the English sounds for the printed words, and 3) were exposed to the meaning that was conveyed by these words. In addition, they heard English in running sentences, spoken in a highly energetic manner by the story-teller and the characters.
A third helpful function of the presentation was that children saw and heard stories, their plots and characters, in one sitting. As low achieving readers, they previously had little opportunity to complete a story or a book, perhaps only reading the first few pages before returning it to the shelf. Here, they must have gained much satisfaction in the completion of stories, the resolution of their plots.

A fourth factor which may have contributed to the positive impact of this kind of activity could be the rather benign nature of the way the activity was conducted by the teacher and aids. Children were not required to perform their unpolished reading skills before others in the classroom. Also, it was not necessary for the teacher or the aids to constantly supervise each facet of the activity. Once the students could operate the equipment and complete the other tasks assigned to them, they were capable of working on their own.

The combination of the afore-mentioned factors, it is suggested, enabled the Navajo children to read the books after the audio-visual presentation and complete other books, later, on their own time and of their own volition: 1) observing illustrated portions of the story; 2) being exposed to the language and content of the story prior to reading; 3) experiencing the story in its entirety; and, 4) completing the assigned work in a low key atmosphere. Although numerical data was not gathered on students' performance as a result of the pre-reading presentations, it is postulated here that their increased reading of books, and their completing more books after participating in the activities, is some evidence on the impact of the activities.

A variety of audio-visual media forms can be used to show and tell a story. There are many commercially available filmstrips, movies, posters and pictures that can be used to illustrate a story. Narration or written text can be created by the teacher for those materials which do not contain accompanying narration. In addition, teachers can construct both visual and audio components of stories if relevant material is not available.

Photographs, posters, slides, and transparencies can be created to illustrate the people, objects, and activities of the children's community. Whatever the visual media, exciting narration for it can be put onto cassette tapes, used and stored, and a text can be written and duplicated to accompany the narration and the visuals. Certainly, children can be enlisted to help the teacher to design and create audio-visual pre-reading activities about topics of their interest. Each form can be viewed, listened to, and later read by the students. The following activity is an example of the use of photographs:

1. Decide with the children what neighborhood activity you all would like to watch, listen to, and read about, e.g. "How To Round Up Horses."

2. Outline a sequence of steps which illustrates the process or actions of the story. For example, 1) Boys are
getting on their horses, 2) They ride out into the prairie, 3) They surround the horses, 4) The boys shout and wave at the horses, and so on.

3. Take pictures of each of the steps and have them developed.

4. Create a narrative or story that describes what the pictures are showing. Once the story is written, it can be recorded onto audio-tape and written for duplication.

5. The audio-visual pre-reading activity can begin and be used with all children for whom it would be of interest.

Using audio-visual media in this way is by no means a substitute for the instruction of reading skills. Watching a filmstrip and listening to the contents of a cassette-tape can not replace the serious interaction that needs to occur between a reader and what is written. A pre-reading activity as has been outlined can inform students about the contents of stories with the hope that the energy and excitement communicated through the audio-visual media will act as a stimulant to their reading more books at a later time. For those children who have received little reward for reading an unfamiliar language, such an activity literally opens up the world of books and stories for them to see, hear, and understand.

REFERENCES


Individualized reading conferences with children are essential for diagnosis, goal setting, and evaluation. During the conference the teacher and the pupil check the reading records which are kept by the pupil and by the teacher. They may also discuss plans for reports or other creative class presentations.

The major portion of the conference, however, is the interview about the selection which the child has read. The teacher asks several questions in order to determine if the pupil has comprehended the selection. The kinds of questions which are asked usually determine the kind of thinking the child employs in reacting to the questions.

Questions which ask the child to retell what he/she has read demand literal recall. Such questions are valuable when they indicate whether concepts have been grasped firmly enough to be reproduced. These are often the easiest for the teacher to formulate and for the child the easiest to answer. They are generally questions of detail, sequence, and the main idea ("What was the story about?").

Questions which require the reader to extend what has been actually stated are interpretive questions because the reader must use both obvious and subtle cues to move beyond literal interpretation. Interpretations can be evaluated for support or rejection by reference to what has been actually stated. This is a process we might call "gap-filling."

Questions that demand critical judgment through the use of external or internal criteria are designed to encourage critical thinking and critical reading. Since most children are hesitant to question the printed word, teachers need to foster more realistic attitudes by questioning and helping children recognize assumptions, distinguish fact from opinion, and judge the competence of authors.

Generally, questions that ask "why," "how," "because of," "in what way," and "what do you think," can lead to high levels of thinking than do questions that begin with "who," "what," "when," and "where."

The questions which are presented below have been proven successful for use in an individual reading interview. These may easily be placed on index cards for durability and easy use. They may also be posted in the classroom so that pupils can prepare for the interview. The most appealing feature of the questions is that they encourage critical thinking and foster development of interpretation and evaluation skills. Some require the pupil to apply imagination. Others ask the reader to relate reading to his/her own personal
experiences. Of course, the teacher may wish to interject other pertinent questions as the interview progresses and will certainly delete those which are not appropriate for the particular selection.

Questions for Books of Fiction

1. How can you tell where the story took place?
2. If you were to paint a picture of the setting, what would you include in your picture?
3. What gave you clues as to when it took place?
4. Is the main character like anyone you ever knew? In what ways?
5. Is the main character unlike anyone you ever knew? In what ways?
6. Would you choose the main character to be your friend? why?
7. Is he/she like you? how?
8. Describe the other people or characters or animals in the story.
9. How did they get along with one another?
10. What problems or troubles did the characters have to overcome?
11. How did they solve them, if they did?
12. Was there any part of the story that you think could not happen in real life? Why? (recognition of fantasy) If the story was real, what made it appear to be so?
13. Is there any way in which the characters changed during the story? how?
14. Does the title suit the book or story? why?
15. If you could give it a new title, what would you call it? why?
16. What caused the character to behave in the way he/she did?
17. In what part of the world did it take place? Could it happen anywhere? why?
18. Who told the story? How do you know?

These questions should evoke more enthusiasm and interest in the interview than the trite "Did you like the book? why?"

After the interview the pupil may select a passage to read aloud. If so, the teacher may ask evaluation questions which encourage judgment such as, "What passage do you think best describes the main character?" or "What passage best describes the problem?"

Non-fiction materials require a different set of questions and evoke a different set of responses. Questions for this interview should encourage the reader to explain some concepts and to apply what he/she has learned. Often pupils select books about topics they already know well. If so, they should be encouraged to dispute, disagree, or question the veracity of some aspect of the book. The following questions have proved to be successful in the non-fiction book interview.
Questions for Books of Non-Fiction

1. What new things did you learn from reading this book? Can you explain?
2. What questions did it answer for you?
3. How can you use what you have learned?
4. Is there any part of the book you would not agree with? How? Why?
5. Can you compare this with any other books you have read on the same topic?
6. Would you read more books on the same subject? Why?

The individualized reading interview is an essential aspect of a good independent reading program. The quality of the interview depends on the nature of the teacher's questions. When properly conducted, the interview can foster critical thinking and critical reading skills. It will reinforce interest and enthusiasm for further reading.