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Among the trends that have emerged in recent years to help diagnose the remedial reader are some which--applied with caution--may be of reasonable value to the clinician and the teacher. One of these trends has been the promotion of informal assessments, and an accompanying plethora of commercial informal reading inventories (IRIs). These instruments are designed to replace any that might be made by the teachers and clinicians who use them, and thus they should be examined carefully in terms of how well they serve teaching and clinical needs.

CUSTOMIZING IRIS TO MINIMIZE THEIR LIMITATIONS

Klesius and Homan (1985) responded to the emerging prominence of these instruments by suggesting ways that their reliability and validity could be improved by the teachers and clinicians using them. They recommended tape recording the student reading and his or her responses to questions so that they can be reviewed. In this way, all miscues can be identified and responses to comprehension questions can be carefully considered. Klesius and Homan recommended that items which could be answered without reading the passage be eliminated, that possible appropriate answers one's students give--but which are not listed in the inventory's directions--be added, and that questions which appear to be worded too awkwardly for the child being tested to grasp be reworded.

Klesius and Homan advised that only overall comprehension scores be used and that subskill scores based on just a few items should not be analyzed or used. They would place more emphasis on comprehension, however, than on miscue analysis and recommended watching for signs of frustration, no matter how well a student performs on the inventory.

It is highly impractical to expect either IRIs or "standard reading inventories" developed recently or even in the future to respond to all the many criticisms of reading tests, as Henk (1987) seems to think they can. But many IRI instruments now published do seem quite limited. Some assess only oral reading and miscue analysis, while the more comprehensive ones measure oral and silent reading comprehension and word recognition, both in isolation and in written context.

Only those IRIs accompanying basals tend to reflect the original concept of the IRI, which assesses a child's reading behavior in the materials actually used in his or her classroom instructional program. None provides the opportunity to observe how the reader goes about comprehending the information presented or how special textbook features, such as the table of contents, the glossary or index, footnotes, pictorial material and graphs, a pronunciation guide, etc. are used.

The skills learned by the teacher in choosing the selections for an IRI and in constructing and revising the questions to be used are lost when published IRIs are



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used instead of teacher-designed instruments. The experience of constructing an IRI, which should be a part of preservice and inservice programs, trains teachers and clinicians alike to be more accurate observers of reading behavior.

Several studies reported in the ERIC database express concern about the inconsistent results yielded by published IRIs when they are compared to each other (Newcomer, 1985) or to standardized instruments such as the Durrell Analysis of Reading Difficulty (Nolen and Lam, 1981).

USING IRIS TO SELECT INSTRUCTIONAL MATERIALS

IRIs are frequently used to place readers in materials of appropriate difficulty, and thus readability issues are relevant to the use of the assessments. Some studies report that acting on the results of an IRI will lead to placement in reading materials that are significantly less difficult than those particular standardized tests would recommend. To some reading specialists, it is harmful to place children in unnecessarily low reading groups (Eldredge and Butterfield, 1984). Powell (1982) describes a method that responds to this concern. Teaching and diagnosis begin together with a lesson that develops motivation, background, vocabulary assistance, and purpose-setting for a particular text. Then the student reads the text aloud and the teacher records miscues for analysis. This procedure operates as a kind of IRI that identifies what Powell calls "the emergent reading level"--what the student can read with instruction.

Cadenhead (1987) suggests that gearing instruction to "reading levels" is relying on a myth that thwarts the challenge that more advanced material can evoke in children. Doing so, he contends, eliminates a "reasonable balance between success and challenge for the learner." While many of his arguments are quite valid for the achieving reader, they are inappropriate for the child who is a remedial reader and has experienced repeated doses of failure with printed material. Many experienced teachers and clinicians are aware of the need to follow the policy of identifying materials that will insure success when the remedial reader attempts to process text (e.g., Forell, 1985).

Some published IRIs include materials and strategies built into the diagnostic procedure, and these lead the teacher or clinician to use them with a problem reader before the result of the test can determine the inventory's specific recommendations for remediation. Some of these varied approaches are based on a contention that children will learn more readily when instruction is geared to modal preferences they may have. This seemingly logical assumption is reoccurring in the literature; but it appears to be as far from being substantiated as it was in 1972, when Robinson demonstrated that instructional emphases matching modal preferences do not appear to improve learning.

RECOGNIZING THE LIMITATIONS OF COMPUTERIZED DIAGNOSIS



Another trend in reading diagnosis may limit the sensitivity of a clinician's or teacher's analysis of individual student needs. Accompanying many published diagnostic instruments are computer software programs that eliminate the need of the test administrator to truly examine the data. The computer can thus be used to analyze a student's performance and to produce several printout pages of the objective results, interpretations of them, and recommendations based on them--a service that must by necessity be based on some arbitrarily selected standards of performance--if not on a norming procedure. Colbourn (1982) describes an early protocol of such a program developed by comparing diagnostic reports written by both humans and machines. Even at its best, such a computer analysis cannot match the essential benefits of an IRI--its ability to individualize the diagnosis of a reader. It should be obvious that computer scoring limits the opportunity of the clinician or teacher to become ever more sensitive to how particular signs of reading behavior relate to potentially effective remediation.

Many of the diagnostic instruments which provide computerized scoring, are themselves administered by computer. Branching computer software has the ability to offer a significantly larger number of packaged items individually to the student who finds a particular subskill difficult, increasing the reliability of that subscore. The information produced by such instruments would be of value as a part of the collection of data that clinicians and teachers consider in placement and other instructional decisions; it is difficult to see how they can ever become the single--or even major--informant of such decisions, however.

INCORPORATING COMPUTERIZED DATA INTO INSIGHTFUL CLINICAL PROBING

Computerized diagnoses can now assess only the simplest aspects of comprehension, and that is almost invariably done with multiple-choice items. An in-depth assessment of comprehension can be made only through careful probing of the reader's understanding. This demands a face-to-face questioning situation. Such inventories cannot yet analyze miscues; nor can they analyze or evaluate responses to open-ended comprehension items. And certainly they cannot note the frustration or deliberation that Klesius and Homan argue is indicative of material that is too difficult even when students answer the accompanying questions correctly. The ability of these computer-driven instruments to diagnose the problems of individual readers is limited to analyses based on responses to a very fixed set of questions.

Teachers and clinicians need to make use of many tools to guide their decisions, and

Teachers and clinicians need to make use of many tools to guide their decisions, and published diagnoses accompanied by computer software are among them. It is, nonetheless, important to remain aware that--at its best--diagnosis is a dynamic, insightful process, replete with delicate clinical probing of children's responses that cannot be replicated by a computer.

Precise assessment of a reader's strategies for handling printed material is in the realm



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of the trained diagnostician. It can be obtained only through careful observation of reading behavior and detailed analysis of the resultant understanding. A diagnostically oriented directed reading activity or the use of an individual informal reading inventory is a prerequisite.

REFERENCES

Cadenhead, Kenneth. "Reading level: a metaphor that shapes

practice," Phi Delta Kappan, 68 (6), February 1987, pp. 436-441. Colbourn, Marlene Jones. Computer-guided Diagnosis of Learning

Disabilities: A Prototype. Master's Thesis, University of

Saskatchewan, Canada: 1982. 203pp. [ED 222 032] Eldredge, J. Lloyd, and Butterfield, Dennie. "Sacred cows make good

hamburger." A report on a reading research project titled "Testing the

sacred cows in reading," 1984. 93pp. [ED 255 861] Forell, Elizabeth R. "The case for conservative reader placement,"

Reading Teacher, 38 (9), May 1985, pp. 857-862. Henk, William A. "Reading assessments of the future: toward precision

diagnosis," Reading Teacher, 40 (9), May 1987, pp. 860-870. Klesius, Janell P., and Homan, Susan P. "A validity and reliability

update on the informal reading inventory with suggestions for

improvement," Journal of Learning Disabilities, 18 (2), February 1985,

pp. 71-76. Newcomer, Phyllis L. "A comparison of two published reading

inventories," Remedial and Special Education (RASE), 6 (1),

January-February 1985, pp. 31-36. Nolen, Patricia A., and Lam, Tony C. M. "A Comparison of IRI and

Durrell Analysis of Reading Difficulty reading levels in clinical

assessment," [1981]. Powell, William R. "The emergent reading level: a new concept." Paper

presented at the Annual Southeastern Regional Conference of the



International Reading Association, 1982. 17 pp. [ED 233 334] Robinson, Helen M. "Visual and auditory modalities related to methods

for beginning reading," Reading Research Quarterly, 8 (1), Fall 1972,

pp. 7-39. ERIC Clearinghouse on Reading and Communication Skills Indiana University Smith Research Center 2805 East Tenth Street, Suite 150 Bloomington, IN 47405

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