THE CORRELATIONS BETWEEN
TEACHER ASSESSMENT OF SECOND GRADERS' READING
ABILITIES AND THEIR PERFORMANCE ON SUBTESTS OF
THE TEST OF COGNITIVE SKILLS

THESIS

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ABSTRACT

The purpose of this study was to determine the relationships between teacher assessment of students' reading abilities and the students' performance on the subtests of the Test of Cognitive Skills - Second Edition - Level 1. The need for the study was prompted by the movement of districts to utilize more authentic means of assessing reading ability and explore their consequent validity. It was also to determine if teachers are focusing in a particular cognitive domain when assessing the reading abilities of their students.

Fifty-five heterogeneously grouped third grade students who attend an intermediate school in a western New York suburb served as the subjects of the study. Degrees of Reading Power (DRP) levels, identified by second grade teachers using running reading records, were compared with Test of Cognitive Skills - Second Edition - Level (TCS/2 - Level 1) subtest scores. The data were then analyzed using the Pearson product-moment correlation to determine if any strong relationships ($r \geq .5000$) existed between the assigned DRP levels and the subtests of sequences, memory, analogies, and verbal reasoning.

After the data were analyzed, it was found that a strong correlation (r = .5193) existed between the DRP levels, which ultimately represented higher achieving readers, and scores on the verbal reasoning subtest of the Test of Cognitive Skills - Second Edition - Level 1. This correlation was also found to be significant at the .001 level.

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CHAPTER I

STATEMENT OF THE PROBLEM

Purpose of the Study

The purpose of this study was to determine if there are strong correlations ($r \geq .5000$) between third grade students' reading abilities, as determined by second grade teachers using running reading records, and the students' performance on each of the four subtests of the Test of Cognitive Skills - Second Edition - Level 1, given to them in third grade.

Need for the Study

As many districts head towards more authentic means of assessing a student's reading ability, the validity of such performance assessment is called into question. Despite the research which finds that oftentimes teachers' observations and judgments of students' reading abilities are accurate, these judgments still can vary from the results obtained from

end of the year standardized reading tests. Many
reasons have been cited for such differences, one being
that standardized tests only offer a snapshot of the
child as a learner. It is a picture of the student's
performance on one test, on one day, which may not give
an accurate portrayal of the child on the whole. Most
standardized tests given also rely heavily on non-
fiction and expository text to assess a student's
comprehension. Teacher observation and judgment
provides a glimpse of the child's progress and
abilities on a variety of materials that are presented
within the classroom setting. Still, districts
question the gap between teacher assessment and student
performance on standardized reading tests. If
education is to move towards more authentic means of
assessment, then teacher judgment must be recognized as
a valid form.

Part of the difference between teacher assessment
and standardized test results may also lie in what is
being assessed through the use of a running reading
record. In the running reading record many different
skills and strategies a child uses are explored. These
skills and strategies include: retelling, determining
main ideas and supporting details, showing an

understanding of story grammar (characters, plot, conflict, setting, et cetera), word attack skills, acquisition of new vocabulary, sharing of metacognitive strategies used when reading, and making inferences. The cognitive abilities of memory, sequencing, determining analogies, and verbal reasoning are used within these skills and strategies. It would be interesting to note if teachers focus in on a particular realm of the cognitive domain when they are assessing a student's reading ability. Perhaps by having a better understanding of **what** is being assessed, improved methods of assessment will result.

Definitions of Terms

Running Reading Record: The running reading record is a reading passage given to a student which allows the teacher an opportunity to assess the student's ability to decode and his or her comprehension level. Passages are measured in terms of DRP (Degrees of Reading Power) levels.

Degrees of Reading Power Level (DRP Level): The Degrees of Reading Power Test is an untimed cloze test which consists of a series of varying non-fiction passages. The passages increase in difficulty as the test progresses. The test assesses a child's knowledge of syntax and semantics. A numerical score is given for the test. Ranges have been defined by the district to establish grade level expectations. Consequently, passages have been created at particular DRP levels to allow for the assessment of a child's reading ability through the use of a running reading record.

Test of Cognitive Skills - Second Edition - Level 1 (TCS/2 - Level 1): The Test of Cognitive Skills - Second Edition - Level 1 (Macmillan/McGraw-Hill, 1992) is comprised of four mental ability tests designed to assess the academic aptitude of students in second and third grades. The tests included in the TCS/2 - Level 1 are intended to measure selected cognitive abilities of a relatively abstract nature that are considered important to success in an educational program. Items have been created to sample such abilities as understanding verbal and nonverbal concepts and comprehending relationships among ideas which are

presented in a variety of forms. The four subtests that comprise the TCS/2 - Level 1 are as follows:

Sequences: Measures a student's ability to comprehend a rule or principle implicit in a sequence of figures.

Memory: An auditory-visual task which measures a student's ability to recall picture pairs that were presented earlier in the testing.

Analogies: Measures a student's ability to discern various types of relationships between picture pairs, and then to infer parallel relationships between incomplete picture pairs.

Verbal Reasoning: Measures the student's ability to solve verbal problems by reasoning deductively, analyzing category attributes, and discerning relationships and patterns.

Summary

As districts are moving towards more authentic means of assessing children's reading abilities, the

accuracy of these judgments are being called into question. Teachers' observations and judgments of their students' abilities can often vary from end of the year standardized reading test results. Perhaps teachers focus in on a particular facet of the cognitive domain when they are assessing a child's ability to comprehend a passage. This study hoped to discover if there were strong correlations between teacher assessment of reading abilities and the students' performance on the subtests of the Test of Cognitive Skills.

CHAPTER II

REVIEW OF THE LITERATURE

Purpose of the Study

The purpose of this study was to determine if there are strong correlations ($r \geq .5000$) between third grade students' reading abilities, as determined by second grade teachers using running reading records, and the students' performance on each of the four subtests of the Test of Cognitive Skills - Second Edition - Level 1, given to them in third grade.

A review of related literature includes the topics of: the links between standardized tests, cognitive tasks, and achievement, informal means of assessing a child's reading ability, and the accuracy of teacher judgment of student achievement.

Standardized Tests, Cognitive Tasks, and Achievement

The accuracy of standardized tests and their ability to measure cognitive abilities required for

both academic and non-academic tasks has been a subject of debate among educators and researchers for some time. This is perhaps due to how scores are utilized. Oftentimes scores on standardized tests are used for admittance into particular colleges, to determine grades students receive, and placement in academic tracks (Marzano & Costa, 1988). The question of whether they are a reliable and valid tool for predicting academic achievement also comes into question. With the power the standardized test holds in some educational settings, it seems timely to explore the relationships among cognitive abilities, performance on standardized tests, and academic achievement.

In looking at cognitive abilities, it is perhaps best to start with a shared definition of what cognitive abilities are. Marzano and Costa (1988) define general cognitive abilities as those mental processes used in academic tasks that intersect more than one academic discipline. This definition is based on the premise that the human mind stores information in two forms: (1) factual or declarative knowledge and (2) process or procedural knowledge. Together, these forms of knowledge help students to understand and

function in the world around them. But to what extent do these cognitive abilities play in critical thinking, problem solving, and comprehension?

In a study by Frazier and Caldwell (1977), it was stated that critical thinking and problem solving skills are developed as children progress through developmental stages. Oftentimes it is the belief of educators that assessment of higher cognitive skills, such as application and analysis, is not appropriate for second and third graders, primarily because these skills may not yet be well developed in children of that age. Frazier and Caldwell found, however, that these skills do exist in primary children and that these cognitive abilities can be measured. They used a guide created in 1967 by Metfessel and Michael (cited in Frazier & Caldwell, 1977), and tests by Kropp and Stoker (1966) to create an examination to assess cognitive abilities. The test consisted of reading passages which contained information from which questions spanning the taxonomy levels could be devised. From this testing, it was found that 66 percent of the second and third grade students taking the test were able to pass the questions created at the application level, and 37 percent at the analysis

level. Frazier and Caldwell felt that these higher level cognitive skills were not only present in primary school children, but that teachers could foster the development of these skills through the use of evaluation. Such evaluation could be done daily in the classroom in the form of questioning. Teachers were encouraged to elicit responses from students that went beyond rote memorization or simple recall, and instead tapped into these higher cognitive skills.

Crowell, Au and Blake (1983) noted that higher level cognitive skills were being assessed through different levels of questioning in six different standardized tests. They used categories developed in 1981 by Crowell and Au to distinguish the different levels of questioning. These categories of questioning are: (1) association questions, (2) categorization questions, (3) seriation questions, (4) integration questions, and (5) extension questions. Levels two through five were determined to use higher level thinking skills. Of the six tests examined in the study (American School Achievement Test (ASAT), California Achievement Test (CAT), The Comprehensive Test of Basic Skills (CTBS), The Gates-MacGinite Reading Test (GATES), the Metropolitan Achievement Test

(MAT), and the Stanford Achievement Test (SAT)) it was found that all tests included questions at levels one, two, and three. The CAT, CTBS, MAT and SAT included level four questioning, as well. None of the tests in this study included questions at level five. Still, higher level thinking skills were being addressed in standardized tests. What cognitive tasks, then, are needed by students to perform well on achievement tests?

This question was addressed by Cannella in her 1982 study which tried to determine the correlations between individual and group cognition with achievement test scores on the Metropolitan Achievement Test. Six cognitive areas based on the work of Piaget were assessed: classification, conservation, seriation, construction of a straight line, egocentrism, and mental imagery. It was found that only the results on the group seriation subtest (which explored relationships among details, including cause and effect and sequencing of events) achieved a moderate relationship with the achievement areas explored. (r = .455 for MAT Mathematics subtest, r = .268 for MAT Reading subtest, and r = .380 for the MAT Language Arts subtest). Although the correlations in this study were

moderate, significant correlations have been established in other studies (Kaufman, 1971). If cognitive tasks have a relationship with achievement on standardized tests, can these tests, in turn, be used as predictors of future academic success?

In a study by Weller, Schnittjer, and Tuten (1992) the correlations between the scores on the Metropolitan Readiness Test (MRT) given to entering first grade students and achievement test scores in mathematics and reading in grades three, six, nine, and ten were examined. The MRT was determined to have long term and stable correlations with academic performance through tenth grade. Similar results were also noted in studies by Rubin (1974) and Moore, Martin, and Munday (1982) which focused on the MRT's predictive value on test achievement for students in grades one through three. Other studies, however, were not as sure of the predictive value of standardized tests.

Marzano and Costa (1988) believe that standardized achievement tests in their present form are primarily measures of factual information. From their observations they noted that performance on standardized tests have little to do with a student's cognitive abilities and a great deal to do with how

well the factual information presented in the Stanford
Achievement Test and the Test of Basic Cognitive Skills
have been learned and are able to be retrieved.
Standardized tests "do not support many of the
important information processing and utilization skills
that are necessary for the 'information age'" (Marzano
& Costa, 1988, p. 68). To use standardized achievement
tests for the prediction of academic success and as the
sole measure of cognitive abilities is unwarranted.
Other options available for assessing a student's
measure of performance and ability must be explored.

Informal Assessment of Reading

Standardized achievement tests were originally
just one of the many pieces of data used to assess
student competence (Haney, 1984). Alternatives for
assessing the vast array of thinking skills and
abilities are needed within the educational setting,
particularly in the area of language arts. Yetta
Goodman recommended the use of "kid-watching" in 1978.
This process involves interacting, observing,
documenting, and interpreting information gathered on a

student. Cognitive operations and abilities are able to be assessed. But what tools are available to teachers to help them in gathering this information on students?

One method of gathering information is through the use of an Informal Reading Inventory (IRI). The IRI is not a singular test, but a template, a design that allows for the creation of a test. An IRI can be teacher developed or commercially packaged. If IRIs are teacher developed, passages can be taken from textbooks or trade books that are identified by school grade level. Pikulski (1974) noted that the strength of the IRI lies in its close correspondence between the test material and the materials used for teaching. Questions for the IRI are developed at literal, inferential, and applicative levels. These questions, along with the recording of student reading errors, help to establish reading grade levels (independent, instructional, and frustrational), to identify a student's strengths and weaknesses with word identification, and to aid in assessing comprehension.

The Reading Miscue Inventory (RMI) is an informal commercial test designed to examine language and thought processes during the act of reading. In an

RMI, students are given difficult passages to read aloud. When a student miscues, or deviates from the printed text, his or her error is recorded by the teacher. When the reading of the passage is complete, students are asked to recall as much of the passage as they possibly can. Prompts are given to elicit information once the initial retelling is given. Teachers then use a checklist of nine questions to help in identifying students' reading strengths and weaknesses with graphophonetic and grammatical relationships, and comprehension patterns (Goodman & Burke, 1972).

The Informal Reading Assessment Inventory (IRAI) attempts to incorporate the best features of both the IRI and RMI. The IRAI is developed by selecting difficult passages from trade books, content area books, textbooks, recreational materials, and the like. Criteria, including problems to be solved and questions to be answered, that will be used to determine a student's comprehension of the passage should be written out. As the student reads the passage aloud, miscues are recorded by the teacher. The student then responds to the criteria established to determine comprehension. Interpretation of the IRAI is

accomplished by analyzing miscues. Unlike the IRI and RMI, however, reading level is not the concern, but instead, the determination of how a student processes information as he or she reads (Scales, 1980).

In addition to the reading inventories discussed, cloze tests can be used to determine reading level. In cloze tests passages representative of classroom materials are typed out. These passages should contain about 275 words. The first and last sentences are left intact with the other sentences in the passage having every fifth, eighth, or tenth word deleted. The student is then directed to read the passage and write in a word on the blank to replace the omitted word. Only the exact word omitted can be accepted as correct. Cloze tests can be helpful in analyzing how students use their language skills during the process of reading (Bormuth, 1968).

The Maze is a modified cloze technique. Typed passages of approximately 120 words are suggested, with every fifth word deleted. Three alternatives are provided for every word: one correct, one incorrect from the same grammatical class as the correct word, and one incorrect from a different grammatical class. As with cloze procedures, a student's ability to

comprehend the semantic and syntactic structure of the passage can be assessed (Guthrie, Seifer, Burnham, & Caplan, 1974).

There are instruments and guides which exist that can aid in teacher judgment of a student's ability. The accuracy of teachers' judgments of students' reading abilities then becomes the next issue to be addressed.

Teacher Judgment of Student Achievement

There is a growing body of research that looks at the accuracy of teachers' judgments of their students' knowledge and abilities as readers. This is timely considering the move of some districts towards more performance-based models of assessment. It is also important when one recognizes the number of decisions about pupils that are based upon teacher perceptions of pupils' performance levels. Minute to minute decisions on whether to elaborate, clarify, alter the pace of instruction, and so forth, are based on the perceived needs of the students. How accurate, then, are

teachers' perceptions of their students' needs and
abilities?

A number of studies show statistically significant
correlations between teacher judgment and standardized
achievement test scores. Pedulla, Airasian, and
Madaus' 1980 study reported a correlation of .65
between teachers' ratings of their students' language
arts performance and their students' standardized
achievement test scores. Likewise, in a study by
Coladarci and Hoge (1989), the average correlation
between teacher judgment of students' reading abilities
and actual student achievement was .67.

In another study by Coladarci (1986), third and
fifth grade teachers provided accurate judgments for
approximately 75 percent of the reading items on the
SRA achievement test. This level of accuracy seemed to
be affected by several factors: the teacher, the
academic task being judged, and which student was being
judged - with higher achieving students being assessed
more accurately (85 percent) than those working below
grade level (62 percent).

The impact of being able to more accurately judge
a student's work was captured by Peterson (1988) who
noted that academic achievement among elementary

students is fostered by teachers who can more accurately judge their students' knowledge. By having a better understanding of their students' capabilities, teachers are in a better position to make appropriate short and long term instructional decisions, which, in turn, should encourage and enhance student learning.

A collection of work samples and informal assessment can provide a teacher with the information that will help him or her better understand a student's abilities and help in the creation of instructional objectives for that student. Teachers must carefully monitor and examine their teaching and assessment procedures to develop a greater awareness of their students' abilities and cognitive processes, thereby promoting the literacy of their students.

Summary

This chapter reviewed some of the available literature written on the relationships among standardized tests, cognitive tasks, and achievement, informal methods of assessing reading abilities

currently available to educators, and the accuracy of teacher judgment of student achievement.

The review of research, on the whole, showed that standardized tests do incorporate and reflect cognitive skills. It was also noted, however, that there is a need to assess children's abilities through more than just standardized test results. Many other assessment devices, including the Informal Reading Inventory, Reading Miscue Inventory, Informal Assessment Reading Inventory, the Cloze passage, and the Maze technique were explained. Overall the literature showed that teacher judgment and perceptions do correlate positively with student performance on standardized tests.

CHAPTER III

DESIGN OF THE STUDY

Purpose of the Study

The purpose of this study was to determine if there are strong correlations ($r \geq .5000$) between third grade students' reading abilities, as determined by second grade teachers using running reading records, and the students' performance on each of the four subtests of the Test of Cognitive Skills - Second Edition - Level 1, given to them in third grade.

Null Hypothesis

There will be no strong correlations ($r \geq .5000$) found between third grade students' reading abilities, as determined by second grade teachers using running reading records, and the students' performance on each of the four subtests of the Test of Cognitive Skills - Second Edition - Level 1, given to them in third grade.

Methodology

Subjects: This study involved 55 heterogeneously grouped third grade students from a public intermediate school in a western New York suburb.

Materials: This study used Degrees of Reading Power levels, as reported by second grade teachers using running reading records, and the Test of Cognitive Skills - Second Edition - Level 1 (TCS/2 - Level 1) subtest scores.

Procedures: The researcher collected data from the TCS/2 - Level 1 given in October 1995 and compared the subtest scores to the DRP levels reported in the language arts folders by second grade teachers in June 1995. Test of Cognitive Skills data were collected from the district school office. Degrees of Reading Power levels, via running reading records, were collected from the language arts folders housed in the permanent record files held at the intermediate school. The relationships were analyzed to determine if strong correlations ($r \geq .5000$) exist between the data.

Statistical Design: The Pearson product-moment correlation was applied to the four sets of data to determine if strong correlations ($r \geq .5000$) are present.

Summary

CHAPTER IV
ANALYSIS OF THE DATA

Purpose of the Study

The purpose of this study was to determine if there are strong correlations ($r \geq .5000$) between third grade students' reading abilities, as determined by second grade teachers using running reading records, and the students' performance on each of the four subtests of the Test of Cognitive Skills - Second Edition - Level 1, given to them in third grade.

Findings and Interpretations

The Pearson product-moment correlation was used for the analysis of the data as the purpose of this research was to examine the relationships between teacher judgment of reading ability and student performance on the subtests of the Test of Cognitive Skills - Second Edition - Level 1. This was done to determine if teachers were focusing in on a particular

function of the cognitive domain when they assessed a student's reading ability.

The running reading records data from the language arts folders of fifty-five students involved in the study were collected to provide the Degrees of Reading Power levels assigned by second grade teachers. Using this information a chart was developed to organized Test of Cognitive Skills subtest scores complied by the district. This information was then calculated using the Pearson product-moment correlation to determine the relationships between the data.

The results of the Pearson product-moment correlations are summarized in Table 1 below.

Table 1

Correlations Between Degrees of Reading Power Scores and Test of Cognitive Skills Subtests

TCS/2 - Level 1 Subtest	Correlation value with DRP Levels
Sequences	$r = .1841$
Memory	$r = .1241$
Analogies	$r = .0941$
Verbal Reasoning	$r = .5193$

critical $r < .001 = .4255$
strong $r \geq .5000$

The relationship between DRP levels and the verbal reasoning subtest was determined to be statistically significant at the .001 level. This relationship also showed a strong correlation, thereby rejecting the null hypothesis which stated that there were no strong correlations between teacher assessment of reading abilities and Test of Cognitive Skills subtest scores. The value of $r = .1841$ for the sequences subtest and $r = .1241$ for the memory subtest indicated a weak correlation. The r value of .0941 for the analogies subtest indicated an almost random correspondence between the two sets of data. For those subtests, the null hypothesis holds.

Summary

Of the four subtests of the Test of Cognitive Skills that were compared to teacher assessment of students' reading levels, only one was determined to exhibit a strong correlation ($r \geq .5000$). The correspondence between assigned DRP levels and the verbal reasoning subtest scores was $r = .5193$. This

correspondence was also determined to be statistically significant at the .001 level.

Although no other strong correlations were noted between assigned DRP levels and the other subtests of sequences, memory, and analogies, weak correlations were found between assigned DRP levels and the memory subtest (r = .1241) and the sequences subtest (r = .1841). The correlation between DRP levels and the analogies subtest (.0941) indicated an almost random correspondence between the data.

CHAPTER V
CONCLUSIONS AND IMPLICATIONS

Purpose of the Study

The purpose of this study was to determine if there are strong correlations ($r \geq .5000$) between third grade student's reading abilities, as determined by second grade teachers using running reading records, and the students' performance on each of the four subtests of the Test of Cognitive Skills - Second Edition - Level 1, given to the in third grade.

Conclusions

Although only one of the correlations noted between DRP levels assigned by teachers and scores on the subtests of the Test of Cognitive Skills was of statistical significance, the data still offer information which may be of value.

The first piece of information that needs to be noted was that all the Degrees of Reading Power scores available were those belonging to students performing above district-set standards for second grade. (DRP scores between 30 and 42 are determined to be meeting grade level expectations.) So, although the data were collected from a seemingly heterogeneous group, scores that were gathered truly reflect only those students who would be considered to be reading above grade level expectations. Current data collection procedures employed by the district may account for the presence of these higher scores.

Students are initially given a standard passage to read to determine if they are reading at grade level. Students who are reading at the standard are simply identified as "having met grade level requirements" without specifying specific DRP levels within the range. Only when students fall outside of the range is additional information provided in the language arts folders.

Students who are above the district-set standard (DRP level of above 42) are given reading passages until an instructional level can be determined. This DRP level, in turn, is reported in the language arts

folders. Students below the standard (DRP level below 30) are identified in, yet, another manner.

Diagnostic reading data, including items such as concepts of print, letter identification skills, sound identification skills, and word recognition, are present for students reading below established standards, in place of, instead of in addition to, DRP levels. This lack of consistency in reporting DRP levels may help to explain the findings in this study.

The strongest correlation, then, was between teacher assessment of above average readers' abilities and verbal reasoning skills. This may be because of what is being assessed in each of the subtests of the Test of Cognitive Skills. The sequences, memory, and analogies subtests assess nonverbal reasoning. Pictures and figures are used to represent and appraise a student's knowledge of these various concepts. The verbal reasoning subtest, however, uses the printed word in order to see how well students are able to infer from general principles, analyze category attributes (as in the analogies subtest) and discern relationships and patterns (as in both the analogies and sequences subtests).

It seems reasonable to suggest that students who are believed to be better readers, and have the skills and strategies associated with better readers, would have stronger verbal reasoning skills. Their strength with these language skills appears to be reflected in the teachers' assessments of their reading abilities. The minimal correspondence between non-verbal reasoning subtests and teacher assessment may be due, in fact, to the teachers' expectations of reading as a more verbal process than nonverbal for these higher achieving students. These results offer implications to both the field of education and the field of research.

Implications for Education

The findings of this study provide educators with data that may assist them when they authentically assess a student's reading ability.

The strongest suggestion offered by the data is to employ a more consistent reporting system for Degrees of Reading Power levels. The students who make up the body of most classrooms are not those who are above average readers, but those of average or below average

abilities. By not properly reporting such data, educators are jeopardizing their vision of a majority of their students' abilities and, in turn, their own abilities to improve the quality of the education they provide.

In-service training on how to properly and consistently use running reading records and compensation time given to teachers to administer and record information gained from them would offer a strong first step in alleviating the current problems in the system. Training may also help to improve the quality of the results gleaned. If teachers' assessments are to be valued, they must provide an accurate picture of the capabilities of their students. The need for this accuracy is evident in this study.

Implications for Research

This study raises questions worthy of pursuit for additional research in the area of authentic assessment and its ties to various cognitive areas.

The most obvious area of research could work to identify the relationships between teacher assessment

of readers deemed average or below average and the areas of cognition identified by the Test of Cognitive Skills. It would be interesting to note if similar findings are present, or if different cognitive areas are recognized by teachers of students who are identified as average or below average readers.

Additional studies with the same group of teachers could be completed after district-provided training sessions on the use of running reading records. Research could examine if the same area of strong correlation is present, or if the training in some way influences the correlations.

Finally, since this study focused on second grade teachers' perceptions of students' reading levels, a study which examined teacher assessment of more mature readers (upper intermediate students, for example) may provide different results.

REFERENCES

Borko, J.E. & Cadwell, J. (1982). Individual differences in teachers' decision making strategies: An investigation of classroom organization and management decisions. Journal of Educational Psychology, 74, 598 - 610.

Bormuth, J.R. (1968). The cloze readability procedure. Elementary English, 45, 236 - 249.

Cannella, G.S. (1982). First grade: Relationship of cognitive tasks to achievement tests. Reading Improvement, 19(1), 90 - 96.

Coladarci, T. (1986). Accuracy of teacher judgment of students' responses to standardized test items. Journal of Educational Psychology, 78, 141 - 146.

Crowell, D.C., & Au, K.H. (1981). A scale of questions to guide comprehension instruction. The Reading Teacher, 34, 389 - 393.

Crowell, D.C., Au, K.H., & Blake, K.M. (1983). Comprehension questions: Differences among standardized tests. Journal of Reading, 26(4), 314 - 319.

Frazier, L. & Caldwell, E. (1977). Testing higher cognitive skills in young children. The Reading Teacher, 30(5), 475 - 478.

Goodman, Y. M. (1978). Kid-watching: An alternative to testing. National Elementary School Principal, 57, 41 - 45.

Goodman, Y.M. & Burke, C.L. (1972). Reading Miscue

Inventory Manual. New York: Macmillan.

Guthrie, J.T., Seifer, M., Burnham N.A., & Caplan, R.I. (1974). The Maze technique to assess, monitor reading comprehension. The Reading Teacher, 28(2), 161 - 168.

Haney, W. (1984). Testing reasoning and reasoning about testing. Review of Educational Research , 54, 597 - 654.

Hoge, R.D., & Coladarci, T. (1989). Teacher-based judgments of academic achievement. Review of Educational Research, 59, 297 - 313.

Kaufman, A. (1971). Piaget and Gesell: A psychometric analysis of tests built from their tasks. Child Development, 42, 1341 - 1360.

Marzano, R.J. & Costa, A.L. (1988). Question: Do standardized tests measure general cognitive skills? Answer: No. Educational Leadership, 45(8), 66 - 71.

Metfessel, N. & Michael, W.C. (1967). A paradigm involving multiple criterion measures for the evaluation of effectiveness of school programs. Educational and Psychological Measurement, 27, 931 - 943.

Moore, D.W., Martin, C., & Munday, G. (1982). Predictive validity, self-fulfilling prophesy, and the Metropolitan Readiness Test. Reading Improvement, 19(3), 236 - 240.

Pedulla, J.J., Airasian, P.W., & Madaus, G.F. (1980). Do teacher ratings and standardized test results of students yield the same information? Review of Educational Research, 59, 297 - 313.

Peterson P. L. (1988). Teachers and students'
     cognitional knowledge for classroom teaching and
     learning. Educational Researcher, 17(5), 5 - 14.

Pikulski, J. (1974). A critical review: Informal
     reading inventories. The Reading Teacher, 28(2),
     141 - 151.

Roberts, K.P. (1976). Piaget's theory of conservation
     and reading readiness. The Reading Teacher, 30,
     246 - 250.

Rubin, R.A. (1974). Preschool application of the
     Metropolitan Readiness Test: Validity,
     reliability, and preschool norms. Educational and
     Psychological Measurement, 34, 417.

Scales, A.M. (1980). The Informal Reading Assessment
     Inventory. The Reading Instructional Journal,
     24(1), 5 - 7.

Test of Cognitive Skills (2nd ed.). (1992). Monterey,
     CA: Macmillan/McGraw-Hill.

Weller, L.D., Schnittjer, C.J., & Tuten, B.A. (1992).
     Predicting achievement in grades three through ten
     using the Metropolitan Readiness Test. Journal of
     Research in Childhood Education, 6(2), 121 - 130.

APPENDIX A

Data from Teacher Assessment of Reading Ability

(DRP Levels)

Student Number	**Assigned DRP Level**
1	56
2	53
3	50
4	60
5	60
6	60
7	56
8	56
9	43
10	45
11	56
12	60
13	56
14	56
15	56
16	50
17	56
18	50
19	60
20	56
21	50
22	50
23	56
24	45
25	45
26	49
27	56
28	49
29	45
30	60

APPENDIX A

Data from Teacher Assessment of Reading Ability
(DRP Levels)

Student Number	Assigned DRP Level
31	60
32	49
33	56
34	50
35	60
36	50
37	53
38	60
39	56
40	50
41	60
42	56
43	50
44	45
45	56
46	50
47	49
48	56
49	50
50	49
51	53
52	60
53	60
54	49
55	49

APPENDIX B

Data from Test of Cognitive Skills Subtests

Student Number	Sequences	Memory	Analogies	Verbal Reasoning
1	16	17	20	17
2	18	18	16	19
3	18	19	13	19
4	11	18	20	18
5	18	17	20	14
6	18	17	17	16
7	15	14	20	16
8	14	17	15	18
9	14	17	20	11
10	16	16	15	11
11	16	14	7	18
12	12	19	15	19
13	17	20	20	19
14	17	18	9	14
15	13	16	20	18
16	13	17	20	16
17	15	18	20	18
18	17	15	13	15
19	20	20	11	20
20	18	19	17	16
21	15	14	14	16
22	15	16	10	17
23	15	18	18	16
24	16	11	16	13
25	9	12	14	8
26	17	17	14	14
27	17	15	20	17
28	16	18	19	18
29	12	15	11	7
30	15	14	15	15

APPENDIX B

Data from Test of Cognitive Skills Subtests

Student Number	Sequences	Memory	Analogies	Verbal Reasoning
31	19	19	10	20
32	15	15	18	17
33	17	18	19	20
34	18	16	18	15
35	15	13	18	18
36	16	14	15	11
37	18	18	11	20
38	16	13	17	14
39	18	17	14	15
40	14	14	8	17
41	14	15	15	15
42	18	17	12	15
43	15	17	16	15
44	16	17	12	13
45	16	17	20	15
46	15	18	18	15
47	14	17	15	12
48	16	18	16	12
49	15	17	18	13
50	11	16	11	8
51	9	13	20	19
52	16	12	8	14
53	12	12	16	15
54	15	15	17	8
55	19	17	12	16