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## Problems of the Multidisciplinary Team

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Problems  
of the  
Multidisciplinary Team

A Field Project  
Presented to the  
Department of Psychology  
and the  
Faculty of the Graduate College  
University of Nebraska

In Partial Fulfillment  
of the Requirements for the Degree  
Educational Specialist  
University of Nebraska at Omaha

by  
Gladys H. Rumbaugh

July 1983

UMI Number: EP73902

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Field Project Acceptance

Accepted for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Educational Specialist, University of Nebraska at Omaha.

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## Acknowledgements

I would like to acknowledge the efforts of reading specialists Cheryl Estes, Alice Kosowsky, Tad Leeper, and Patricia Ring for their assistance in collecting the data for this study. Also, I wish to express my appreciation to Committee Chairman Dr. Richard L. Wikoff and members of my Committee, Dr. Norman H. Hamm and Dr. Donald C. Cushenbery, for their guidance in this research project.

A final word of thanks must be given to my husband, Verlan, without whose patience and support this project, and many others, could not have been completed.

Table of Contents

	Page
Abstract .....	1
Introduction .....	2
Who Collects What Information.....	4
Is That Information Based on Nonbiased, Technically Adequate Data .....	7
Is There Active Participation of the Members .....	9
Is There Consensus Among the Team Members .....	13
Statement of the Problem .....	19
Method .....	20
Subjects .....	20
Instruments .....	20
Procedure .....	23
Results .....	23
Table 1 .....	24
Table 2 .....	26
Discussion .....	27
References .....	32

## Abstract

A review of literature on multidisciplinary teams indicates problems in the teams' functioning center around four questions: (a) Who collects what information for the decision-making process? (b) Is that information based on nonbiased, technically adequate data? (c) Is there active participation by all members in the decision-making process? and, (d) Is there consensus among the team members as to classification, placement, and program planning? In the present paper focus is directed upon question (b). This study assessed the degree of redundancy between the General Reading Comprehension Core of The Test of Reading Comprehension: A Method for Assessing the Understanding of Written Language and the reading subtests of the Science Research Associates Achievement Series using a canonical correlation analysis. Results indicated that over 55% of the SRA subtest variance and 44% of the TORC Core variance was redundant.

## Problems of the Multidisciplinary Team

In November 1975, the Education for All Handicapped Children Act, Public Law 94-142, was enacted by the United States Congress. As a result of this act, a number of specialized personnel in the public schools have been required to work jointly as educational decision-making committees. Counselors, nurses, regular and special education teachers, administrators, reading specialists, school psychologists, and speech/language therapists join forces with various social agents and community resources to form multidisciplinary teams. It is these teams, with each member trained in a different discipline, and therefore possessing unique skills, that are the decision-making bodies as to the assessment, placement, and program planning of the handicapped child.

Ideally, information about the child is gathered by each team member in his or her specific area of expertise. That information is shared and synthesized, alternatives are then proposed and evaluated, and ultimately a decision that reflects the consensus of the entire group is made.

A review of the literature, however, indicates that most multidisciplinary teams in the public schools do not function in such an ideal manner. Pfeiffer (1980) reviewed the then existing research on interprofessional teams. He found four problem areas that he felt interfered with most teams' effective functioning:



Minimal parental and regular educator involvement, an unsystematic collection and analysis of the diagnostic information, a loosely construed decision making/planning process, and a lack of interdisciplinary collaboration. (p. 388)

However, in a later study, Pfeiffer (1981) found that these four problems were not those that team members perceived to exist on multidisciplinary teams. Results of a questionnaire, used in Pfeiffer's study and completed by one hundred forty-seven team members, indicated that the two most pressing areas of concern were: "too constrictive a set of team roles and goals, and teams functioning under extensive pressure with minimal support" (p. 330).

At the end of 1982, the author of this paper reviewed over fifty pieces of literature on multidisciplinary teams. The literature consisted of published articles and research reports including direct observation, surveys concerning actual and perceived practices, and reviews of issues. The author has discovered a tendency for problems in the teams' functioning to center around four questions: (a) Who collects what information for the decision-making process? (b) Is that information based on nonbiased, technically adequate data? (c) Is there active participation by all members in the decision-making process? and, (d) Is there consensus among the team members as to classification, placement, and program planning?

### Who Collects What Information for the Decision-making Process?

The problem of role identification, when applying the team approach in the schools, has existed for a number of years. Bennett (1970) referred to the difficulty in identifying a single role of the school psychologist due to the wide variety of ways in which he/she functions. Phillips (1967), Newland (1970), and Sabatino (1972) each wrote of the working relationships of the classroom teachers, the special educators, and the school psychologists. The authors encouraged school personnel to join their roles and functions in the interests of the school children. Buktenica (1970) aptly stated:

Success of the multidisciplinary team depends on the different disciplines leaving their 'role' behind, as it were, and orienting themselves to the school, with the team as a reference group.

(p. 222)

He warned that without common goals, those involved would be in conflict and function at cross purposes.

The enactment of Public Law 94-142 in 1975 generated more specialized personnel in the public schools. This has confounded the problem of role identification on the multidisciplinary team, and in the delivery of services to the child. Territorial struggle among the various professional personnel has been observed when the areas of expertise overlap. According to Lieberman (1980), the territoriality issue

surfaces in the form of who does what to whom. He reported the issue is particularly relevant to resource teachers, speech/language therapists, and reading specialists.

Lieberman warned educators of the "splintered nature of the child's program" (p. 127), as an imminent result of the territoriality issue.

Before each individual member can define his particular role on a team, he must be cognizant of the goals and objectives of the team, as a whole. However, Fenton, Yoshida, Maxwell, and Kaufman (1979) found in a study of 1,428 placement team members, that not only was there a lack of agreement as to the duties of the team, but team members were not fully aware of those duties. It was reported that more than 60% of those teams surveyed had less than a three-fourths majority of their members who recognized the team's responsibilities in making specific decisions.

The effectiveness of a team functioning without knowledge of its goals and objectives is certainly questionable. It seems highly improbable that valid decisions as to placement and programming are made when team members are unaware of the designated task. Furthermore, without delineated team goals, members have no basis for defining their individual roles and responsibilities.

The importance of role definitions has been emphasized by a number of authors. Pfeiffer (1980) stressed the importance of the clarification of roles to promote team ef-

fectiveness by ensuring that team activities are nonduplicative, coordinated, and mutually reinforcing. Yoshida (1980) came to a similar conclusion in his report on Planning Teams. His study involved principals, school psychologists, special education teachers, and regular education teachers. As members of the team, they were asked to indicate which activities, from a list, they perceived as appropriate for their own role, and which they perceived as appropriate for each of the other three roles. He found within-role consensus to be low. Even more ambiguity was found across roles.

Butler and Maher (1981) have warned of the negative consequences of unclear role definitions. "The lack of understanding about what is expected in one's role as a team member can lead to negative side effects" (p. 63). These side effects, in terms of job effectiveness, job satisfaction, and decision making, are a result of intrapersonal and interpersonal conflict. Goldstein, Strickland, Turnbull, and Curry (1980) have suggested that limited attendance and passive participation of team members are consequences of the lack of clearly defined roles and responsibilities.

For a team to function effectively, it is essential that each member be cognizant of the overall team goals, and his or her role in attaining those goals. In addition, each member needs to be aware of the other members' responsibilities to the team. Lieberman (1980) purported this can be accomplished with the writing of role definitions or job descrip-

tions in conjunction with all other special staff to clearly and concisely determine who does what to whom.

Is the Information Based on Nonbiased, Technically Adequate Data?

Federal regulations have established procedures to assure that testing and evaluation materials and procedures utilized for the purposes of assessment and placement of handicapped children are nondiscriminatory. However, a review of the literature indicated discrimination and bias can still be found in the decision-making process.

Ysseldyke and Algozzine (1980) found bias existed in the classification of children as emotionally disturbed, as early in the assessment process as the time of referral. Educational decision makers, in a computer-simulated decision-making experience, ignored standardized test information indicative of average performance and "failed to reject stereotypes engendered by the referral information regarding the type of problem the referred child was thought to exhibit" (p. 7). The authors stressed the importance of making classification decisions based on objective data.

Bias was also found in a study by Frame, Clarizio, Porter, and Vinsonhaler (1982) in which twenty-four practicing school psychologists assessed a simulated learning disability case. On most diagnostic statements, interpretation bias due to the child's race, SES, and achievement level of the child's school was not observed. The simulated low SES black child,

however, did tend to be classified as not eligible for special education much more often than did the white or upper class black.

The influence of child characteristics (sex, socioeconomic status, physical attractiveness) on decisions was found to be minimal in a study by Thurlow and Ysseldyke (1980). This study involved 536 educational personnel who had been participants previously in team decision-making meetings. Information on academic scores was believed to have a greater influence, with achievement and intelligence scores having a significant effect.

According to LaGrow and Prochnow-LaGrow (1982), before a test may be used as a nonbiased assessment tool, it must meet certain criteria as to norms, reliability, and validity for technical adequacy. Tests selected for assessing those students referred for placement with special services have been studied. During computer simulations of placement decision-making, Ysseldyke, Algozzine, Regan, and Potter (1980b) found that school personnel initially selected adequate devices with regard to norms, validity, and reliability. As the number of devices selected increased, however, the quality decreased. Technically inadequate devices were selected more often, during the computer simulation, as the decision-making process continued.

Wright (1982) criticized the methodology employed by Ysseldyke et al. in the computer simulation of placement de-

cision-making. He proposed the results of the simulation study were affected by the varying disciplines of the 159 professionals included in the sample. He suggested an examination of "the acuity of selection by certain subgroups of the sample such as the 25 school psychologists" (p. 541). It was also suggested that subject performance was influenced by the diminishing pool of adequate tests available following each selection.

LaGrow and Prochnow-LaGrow (1982) followed Wright's suggestion, and investigated the technical adequacy of tests selected by school psychologists when there were no restrictions placed on the pool of tests. The results of this study were similar to those found by Ysseldyke et al. (1980b). Only two (18%) of the eleven tests most commonly used by school psychologists in the LaGrow study were rated as technically adequate as to norms, reliability and validity. In other words, according to this study, 82% of the most commonly used instruments by school psychologists do not ensure nonbiased assessment.

#### Is There Active Participation by All Members?

Another line of research has been the investigation of the participation of members on the multidisciplinary team. The word "team" implies the active involvement of each member in the gathering and sharing of information relevant to the individual case, generating alternatives for programming, and finalizing decisions. Armer and Thomas (1978) found that

shared decision making was critical to the successful functioning of pupil personnel services teams. Shared decision making included the sharing of suggestions and ideas, joint planning/mutual decision making, and reciprocal teaching and learning. Equality of influence exerted by representatives of one discipline or another, and flexibility of roles were not essential elements of interdisciplinary collaboration in the study by Armer and Thomas.

As this writer reviewed the present literature, it was noted that authors differed in the ranking of members in terms of their participation on the multidisciplinary team. In an investigation of methods of conflict resolution in child study teams, Hyman, Carroll, Duffey, Manni, and Winikur (1973) found that school psychologists were the most highly trained and experienced, most often team directors, and most often made the final decision. However, in the process of resolving the conflict, the psychologists generalized feelings of discontent among the other professional groups. Hyman et al. questioned the effectiveness of the democratic practice of majority vote when real discrepancies occur in the power, training, and experience of the team members to make clinical and educational decisions.

More recent research by Gilliam (1979) found parents, social workers, regular education teachers and principals ranked low in terms of contributing to the decisions made by the team. Special education teachers, special education con-



sultants, and psychologists were ranked first, second, and third respectively. He suggested this ranking was due to the fact that those highly ranked roles have access to more hard data and thus contribute information based on test scores, records, and diagnostic reports.

The lack of participation of the regular education teacher was also found by Yoshida, Fenton, Maxwell, and Kaufman (1978a). Their study showed school psychologists, social workers, counselors, central office administrators, and principals generally had higher participation scores than did medical personnel or special and regular education teachers, in the following five necessary decision-making activities: contributing information; interpreting information; proposing alternatives; evaluating alternatives, and; finalizing decisions. In this same study, Yoshida et al. found a strong relationship between levels of participation and satisfaction with the decisions made. While school psychologists were ranked highest in participation and satisfaction, regular education teachers were lowest in participation and were generally not satisfied with the team process and the decisions made. As Yoshida et al. so aptly concluded, this dissatisfaction on the part of the regular education teachers is most unfortunate, since it is they who are most often directly responsible in the implementation of those decisions made at the team meeting. Therefore, an increase in the participation of regular classroom teachers in the decision-making pro-

cess was recommended. Since little involvement could result in negative attitudes towards the decision-making process, Yoshida et al. proposed the reassessment of whether it is necessary for certain members of the team to attend all decision-making meetings.

Lower satisfaction with the decision-making process on the part of the regular classroom teacher may also result if the data provided are not the information considered most useful in the planning of instruction for the handicapped child. Thurlow and Ysseldyke (1980b) in a nation-wide sample of 49 school psychologists and 30 regular education teachers, found that both groups mentioned standardized tests most frequently regarding assessment procedures for instructional planning. However, while school psychologists favored this type of test almost to the exclusion of all other types of tests, teachers identified informal measures almost as often as standardized devices. An adequate profile for a meaningful and functional diagnosis, according to Raccioppi (1982), must not only include data from standardized test batteries but from sensitive observations and informal assessment procedures.

This suggests that although standardized tests are appropriate for classification decisions, they are perhaps not as relevant as other types of evaluative techniques to the planning of the individual education program. "The challenge lies in our collecting the appropriate data for the decision

to be made" (Christenson, Graden, Potter, Taylor, Yanowitz, and Ysseldyke, 1981, p. 24).

#### Is There Consensus Among the Team Members?

One of the proposed advantages of a multidisciplinary team is more accurate decision-making. Ideally, relevant information gathered by experts in their specific areas is shared and synthesized, thus forming a total picture of the student. Appropriate decisions, reflecting the consensus of the team members, are then made based upon that information.

Consensus between regular and special education teachers has been reported by Moore and Fine (1978), and by McHugh (1982). The study by McHugh was designed to compare the diagnostic and prescriptive decisions made by reading specialists, learning disabilities teachers, Title I teachers, and classroom teachers about a child experiencing difficulty in reading. The results refuted the belief that teachers and specialists pay attention to different bits of diagnostic information. Furthermore, it was found that teachers and specialists made very similar diagnostic and prescriptive decisions. The study by Moore and Fine compared regular and special education teachers' descriptions of a hypothetical educable mentally handicapped child, a hypothetical learning disabled child, and a hypothetical normal child. No significant difference was found between the three groups of teachers' stereotypic behavioral perceptions of these groups.

Less consensus and agreement is found among the more di-

versified, specialized personnel of the multidisciplinary team. Variability in the decision-making process is reported across the various disciplines, within each discipline, and within the individual members of the team. Epps, McGue, and Ysseldyke (1982) reported little agreement in the classification of the learning disabled student among judges who had experience in psychoeducational assessment, in research on learning disabilities, and/or placement team decision making. Not only were the judges in little agreement with each other, but also inaccurate in their classification. The lack of agreement was a result of the judges using different variables in differentiating between learning disabled and non-learning disabled students. The report concluded pessimistically, "There is considerable doubt that school personnel can accurately and reliably identify such students" (p. 219).

Difference in placement recommendations may be due not only to the different variables considered, but also to the weight assigned each variable. Matuszek and Oakland (1979) found that both teachers and psychologists considered IQ, test achievement, class achievement, and home-related anxiety important variables when recommending a student for a specific type of placement. However, teachers and psychologists differed in the relative importance they assigned the variables. This difference leads to significant differences in recommendations for placement.

Not only is there disagreement between the various dis-

ciplines involved in the diagnosis of the handicapped child, but also within the disciplines. McDermott (1980) randomly selected seventy-two school psychologists with various levels of experience. He presented them with three child case studies, and asked them to render diagnoses. He found that diagnostic agreement was absent at all levels of experience. Furthermore, disagreement among the school psychologists tended to increase as their training and experience increased.

Ysseldyke, Algozzine, Regan, Potter, and Richey (1980a), while compiling a report describing the process individuals follow as they make specific kinds of decisions about specific kinds of students, found a surprising amount of variability in the decision-making process within individuals. Variability in the process, according to Ysseldyke et al., is due neither to the role and knowledge of the decision maker, nor to the type of students about whom decisions were made. Variability in the decision-making process is produced simply because more than one individual is involved.

The lack of consensus found among the team members in the decision-making process may be due to a lack of communication between the members. Morrow, Powell, and Ely (1976) investigated the effect of relevant information on the decision to place students in special education services. They found the Admissions, Review, and Dismissal Committees appeared to make decisions "in a vacuum of other professional/salient information" (p. 190). Their decisions were neither

influenced by social history data, nor by a psychologist's recommendation.

In a study by Christenson, Graden, Potter, Taylor, Yanowitz, and Ysseldyke (1981), "the majority of team members reported that their perception of the student had not changed as a result of the meeting" (p. 28). This implies that each member has come to a decision, based on whatever data he or she has collected or has had access to, before the meeting takes place.

Since Public Law 94-142 was enacted in 1975, the present author has participated on multidisciplinary teams in public schools as a resource teacher, and at the present time is active on such teams as an intern school psychologist. Prior to this time, she served as a classroom teacher, and was trained as a reading specialist. Therefore, she has had the opportunity to view the functioning of the multidisciplinary team from various perspectives. She has been aware of the four problems discussed in this paper: the lack of (a) role identification, (b) test adequacy, (c) participation, and (d) consensus. Of particular interest to her are problems (a) and (b), as they relate to the academic area of reading.

The Nebraska Department of Education Rule 51 has not mandated that the reading specialist be a member of the multidisciplinary team. However, it does designate basic reading skills and reading comprehension as two of the seven areas of functioning to be assessed in determining that a child has a

specific learning disability. Furthermore, federal rules and regulations state that tests and other evaluation materials are to be "administered by trained personnel in conformance with the instructions provided by their producer" (Federal Register, Part II, p. 42496). Recognizing that it is the reading specialist who has been trained specifically in this particular area, it seems appropriate that she/he evaluate reading skills and comprehension, and thus become a member of the multidisciplinary team.

The author has found, in her experience, that a large percentage of the children who qualify for special services are children who are lacking reading skills. This is confirmed by Gaskins (1982), in his review of the research regarding reading disabilities and learning disabilities. He found reading disorders to be the most frequently noted learning problem of learning disabled children. The greatest academic need was to improve reading. Rosner, Abrams, Daniels, and Schiffman (1981) wrote:

A National Survey of Individualized Education Programs (IEPs) for Handicapped Children reports that about 63% of handicapped children, according to their IEPs, are receiving special education services in reading and in oral or written English.

(p. 438)

The authors continued to report that the percentage increased to 73% for 13-to-15-year olds.

Recognizing that a number of learning disabled children are also reading disabled, it is of utmost importance that tests adequate as to reliability, validity, and standardized norms be administered in the assessment of reading skills and comprehension. Lieberman (1982) wrote of the inadequacies of reading tests. He stated, "tests are poor substitutes for reality and can literally be discarded when they are discrepant with regard to reality" (p. 186). Although the present author agrees with Lieberman as to his criticism of some of the available tests, she wonders: Who determines reality, and by what form of measurement?

The International Reading Association (1981) felt so strongly about the misuse of grade equivalents, which they stated promotes misunderstanding of students' reading abilities, that they adopted a resolution to abandon the practice of using grade equivalents to report performance of either individuals or groups of test takers, and further resolved to write to test publishers to urge them to eliminate grade equivalents from their tests. The association encourages the use of norm-referenced scores which they feel are much less susceptible to misinterpretation and misunderstanding.

Breen and Prasse (1982) reaffirm the importance of using standard scores in the initial assessment or reevaluation of learning disability needs. Their study was a comparative analysis of grade equivalent and standard scores on the 1976 and 1978 revised editions of the Wide Range Achievement Test.



They cautioned that grade equivalent scores are susceptible to large fluctuations, and therefore contribute to error in initial diagnoses.

Ysseldyke and Marston (1982) analyzed a number of standardized tests of reading. They found many individually administered tests not to be entirely appropriate for placement decisions, since they are not based on normative data. These tests were found to be inadequately normed, and rarely reported reliability and validity information. In contrast, group administered reading tests were often found to possess excellent technical adequacy. This presents a problem, since placement decisions are made on data collected from individually administered tests. The author of this paper believes the answer lies in a statement by Ysseldyke and Marston: "On the assessment of reading, each decision area introduces its own unique set of needs and limitations" (p. 262). The present author proposes that the decision to be made determines the data to be collected. Technically adequate (e.g., reliable, valid, normed) tests which compare the student's performance with the performance of his peers must be given for placement decisions. Then criterion-referenced tests, evaluating the individual child's functioning in specific skill areas, would be used for program planning.

#### Statement of the Problem

In the multidisciplinary teams on which the author has participated scores from the Test of Reading Comprehension

(TORC) and the Science Research Associates (SRA) Achievement Series are often used as indicators of the student's reading ability. Although these two instruments do not evaluate identical skills, some communality should exist, since the specific skills assessed combine to form a total picture of the individual's overall reading ability. The question arises as to whether or not these two tests provide different information. Specifically, "Is there an overlap of information to the point that data obtained from only one of the instruments is useful?" In other words, "To what extent is it feasible to administer both tests?"

### Method

#### Subjects

Subjects for the study were 97 typical fourth grade students. The fifty-one male and forty-six female students were from four elementary schools in a predominately white, middle-class, suburban, public school district in southeast Nebraska. Age levels ranged from 9 years 6 months to 11 years 10 months, with approximately 64% of subjects aged 10.

#### Instruments

The Test of Reading Comprehension (Brown, Hammill & Wiederholt, 1978) is a norm-referenced test for assessing the reading comprehension ability of student's ages 6.6 to 14.6. The test consists of eight subtests, titled General Vocabulary, Syntactic Similarities, Paragraph Reading, Mathematics Vocabulary, Social Studies Vocabulary, Science Vocabulary,

Reading Directions, and Sentence Sequencing. Each subtest measures an aspect of reading comprehension and yields a standard score scaled to a mean of 10 and standard deviation of 3.

The present study used data from only the first three TORC subtests. These are: (a) General Vocabulary--the student's understanding of sets of vocabulary items that are all related to the same general concept, (b) Syntactic Similarities--the student's understanding of meaningfully similar but syntactically different sentence structure, and (c) Paragraph Reading--the student's ability to answer questions related to story-like paragraphs.

These three subtests form a General Reading Comprehension Core. Their combined scaled scores are statistically transformed into a Reading Comprehension Quotient which is reported in terms of a distribution having a mean of 100 and a standard deviation of 15.

Few research studies have been reported which address the reliability and validity of the TORC. Twenty of the 24 internal consistency reliability coefficients reported in the manual exceed .80, and Standard Errors of Measurement reported are two or less. Three independent investigations of the TORC's validity are reported in the manual. Correlations with achievement tests ranged from .33 between the TORC Paragraph Reading subtest and The Comprehensive Test of Basic Skills Reading subtest to .86 between the TORC General Vocab-

ulary subtest and the Reading Comprehension subtest of the Peabody Individual Achievement Test. A median correlation of .65 is reported between the TORC subtests and various measures of intelligence.

The present study investigated the relationship of the TORC's General Vocabulary, Syntactic Similarities, Paragraph Reading, and Reading Comprehension Quotient with reading achievement as measured by the Science Research Associates Achievement Series (Naslund, Thorpe, & Lefever, 1978). The SRA is a group-administered, norm-referenced test designed to assess skill development in basic curriculum areas in grades K through 12. The Educational Ability Series, Vocabulary, and Comprehension subtest scores of the SRA were used in this analysis. The EAS provides a general measure of verbal and nonverbal ability. The EAS quotient compares students with other students at their grade level rather than at their age level. The Vocabulary subtest assesses skill in identification of antonyms and synonyms, literal meanings of words, meanings of idioms, and meanings of figurative expressions. The Comprehension subtest assesses skill in understanding sentences, grasping details, summarizing, drawing conclusions, perceiving relationships, and understanding the author.

Percentiles, stanines, grade equivalents, growth scale values, and normal curve equivalents (NCEs) are available to describe performance on the SRA. The NCEs are normalized standard scores ranging from 1 to 99, with a mean of 50 and

a standard deviation of 21.06.

Only information on internal-consistency reliabilities is reported for the SRA Achievement Series. These reliabilities were computed separately for spring and fall standardizations. Reliability coefficients for subtests of the series range from .54 to .94. Reliability data computed in the Spring for Form 1, Level E subtests used in the present study range from .89 to .92.

### Procedure

In the Spring of 1983 The Science Research Associates (SRA) Achievement Series was administered to the 97 subjects. In approximately one month's time the General Reading Comprehension Core of the Test of Reading Comprehension was administered to these same subjects. Both tests were group-administered in the regular classroom setting. The national percentile scores of the SRA were converted to standard scores and then related to those of the TORC using a canonical correlation analysis.

### Results

Means and standard deviations of standard scores on the TORC, SRA reading tests and SRA Educational Ability Series (EAS) are presented in Table 1. The means of the two reading instruments ranged from 103 to 107 with the SRA means slightly higher than those of the TORC. Consistent with the reading standard scores was the SRA's EAS ( $\bar{X}=107$ ,  $SD=14$ ). Collectively, these means and standard deviations demonstrated that this

Table 1  
Means and Standard Deviations on TORC and SRA Subtests

Subtest	M	SD
TORC		
Reading Comprehension Quotient	105	14
General Vocabulary	105	14
Syntactic Similarities	105	14
Paragraph Reading	103	15
SRA		
Reading Vocabulary	106	14
Reading Comprehension	107	14
Reading Total	107	14
Educational Ability Series	107	14

sample of fourth graders was within the average range with respect to their cognitive and reading abilities.

The correlations coefficients, presented in Table 2, that were obtained between the TORC and SRA reading tests ranged from .54 to .77. These correlations are considerably higher than the .35 to .44 correlations reported from the same reading assessment instruments in the TORC manual (Brown, Hammill, & Wiederholt, 1978). The SRA's general measure of verbal and nonverbal ability (EAS) correlated .72 to .77 with the SRA reading scores, and .45 to .62 with the TORC scores.

A canonical correlation analysis was performed between the two SRA reading subtests and the three TORC Core subtests to investigate the relationship between the SRA reading subtests taken as a set and the TORC Core subtests taken as a set. Only one variate was significant. Eighty-seven percent of the variance of the SRA reading subtests and sixty-nine percent of the variance in the TORC Core subtests was explained by this variate. Standardized canonical coefficients for the dependent variables were: SRA Vocabulary, .807; SRA Comprehension, .230. For the covariates the standardized canonical coefficients were: TORC Vocabulary, .666; TORC Syntactic Similarities, .325 and TORC Paragraph Reading, .150. The canonical correlation between the SRA subtest composites and those of the TORC Core was .796. The redundancy of the SRA subtests given the TORC subtests was 55%.

Table 2

## Correlations Between TORC and SRA Subtest Scores

		TORC					SRA				
TORC	RCQ	VOC	SIM	PARA	VOC	COMP	TOTAL	EAS			
RCQ	1.00	0.86	0.79	0.87	0.76	0.70	0.77	0.62			
VOC	0.86	1.00	0.58	0.64	0.75	0.64	0.73	0.59			
SIM	0.79	0.58	1.00	0.52	0.61	0.57	0.61	0.53			
PARA	0.87	0.64	0.52	1.00	0.58	0.54	0.59	0.45			
SRA											
VOC	0.76	0.75	0.61	0.58	1.00	0.80	0.94	0.73			
COMP	0.70	0.64	0.57	0.54	0.80	1.00	0.95	0.72			
TOTAL	0.77	0.73	0.61	0.59	0.94	0.95	1.00	0.77			
EAS	0.62	0.59	0.53	0.45	0.73	0.72	0.77	1.00			

Note: RCQ = Reading Comprehension Quotient

VOC = General Vocabulary

SIM = Syntactic Similarities

PARA= Paragraph Reading

COMP= Comprehension

EAS = Educational Ability Series



The redundancy of the TORC subtests was 44%.

### Discussion

As was previously pointed out, the multidisciplinary team decision-making process includes organizing, analyzing, and synthesizing information collected by each of its members in his/her respective area of expertise. If a learning disability is suspected, two of the seven areas of functioning to be assessed are basic reading skills and reading comprehension. Among the possible reading assessment techniques are classroom performance observation, diagnostic reading tests, criterion-referenced and norm-referenced tests. A general convergence of data from these various assessment tools leads to a diagnosis and a decision as to placement and intervention.

Two reading tests frequently used as indicators of a student's reading ability on those teams of which the author has been a member are the Test of Reading Comprehension (TORC) and the Science Research Associates (SRA) Achievement Series. In the process of synthesizing the data from these two instruments some questions emerge. Specifically, What is the relationship between these two tests? What factors are measured? Do other skills need to be measured in the assessment of reading ability? Is one of the two tests superior to the other as a diagnostic tool?

The present study indicates that when group administered, there is a strong relationship between information gained from

the TORC and the SRA Reading tests. Correlation coefficients of .54 to .77 between the TORC Core and the SRA Reading test obtained in the present study are considerably higher than those reported in the TORC manual. Further analysis suggests that the overlap of information between the two tests can be accounted for by a single significant variate, vocabulary. In other words, the recognition and understanding of words appear responsible for a large portion of the overlap between these two assessments of reading ability. It does warrant mentioning however, that considering the relatively high reliability coefficients of the TORC, the present analysis suggests a substantial portion (56%) of this test may be yielding information about some variable that is specific to the TORC Core.

The current study is limited in its implications for the multidisciplinary team in that both tests were group administered. In the team on which the author has participated the SRA is group-administered throughout the school district each spring. Since federal rules and regulations require "a full and individual evaluation of the child's educational needs" (Federal Register, Part II, p. 42496) the TORC is frequently among those tests individually administered by the reading specialist to those students referred for evaluation.

The question then emerges as to the appropriateness of individually administering a group test such as the TORC. According to Salvia and Ysseldyke (1981) the use of group-

administered achievement tests in classification and placement decisions may be justifiable under two circumstances. First, if the group test is administered individually. Second, if the group test contains a wide range of behavior samples and the "tester goes beyond the scores earned to examine performance on specific test items" (p. 134). The present study indicates that the SRA Reading test and the TORC Core are not comprehensive measures of reading skills and concepts. Only a single variate, vocabulary, was found to be significant. Therefore, the use of the TORC as an individual comprehensive test is not appropriate.

It appears feasible to the author, that if a group test such as the SRA is traditionally administered throughout a school district, its results be used as a screening device to indicate the student's level of functioning and the extent to which the student has acquired reading skills in comparison to his/her peers. By so doing, those students requiring a more indepth, individual evaluation would be identified. One possibility is to use the TORC Core as the individually administered device. However, as has been pointed out, due to the high correlation that exists between the SRA Reading test and the TORC Core, very little information will be gained. Time and effort can better be spent on the administration of a more comprehensive, diagnostic, technically adequate test that assesses both basic reading skills and reading comprehension, as designated by the Nebraska Depart-

ment of Education, Rule 51. In addition to assessing the strengths and weaknesses in reading development, the individual test setting provides the opportunity to observe test-taking behaviors that add information about the student's ongoing behavior.

Reading is a complicated process involving numerous and varied skills. It is the opinion of the author that many reading tests available today measure only a few specific skills. The present study has taken two of the many reading assessment tools available and through statistical analysis has found a strong relationship. As a result of this study, an argument can be made for the equivalent interpretation of the SRA Reading test and the scores of the TORC Core. This offers some guidance to the multidisciplinary team in interpreting and synthesizing a student's profile of reading ability when data from both tests are available. The present analysis also points out the limitations of the two instruments. Since both tests have been found to measure only one significant variate, it is obvious that the scores from this type of evaluation need to be supplemented with other test data. Great care needs to be taken in the selection of technically adequate (e.g., reliable, valid, normed) tests.

Future research should investigate the relationship of these group-administered tests to the more diagnostic reading tests which are administered individually. In this way

the strengths and weaknesses of the various assessment instruments can be understood. Ultimately, a battery of technically adequate tests that form a comprehensive measure of reading skills can be developed. Thus the organizing, analyzing, and synthesizing of information in the decision-making process of the multidisciplinary team will be facilitated.

## References

- Armer, B. & Thomas, B. K. Attitudes toward interdisciplinary collaboration in pupil personnel services teams. Journal of School Psychology, 1978, 16, 167-176.
- Bennett, V. D. C. Who is a school psychologist? (and what does he do?) Journal of School Psychology, 1970, 8, 166-171.
- Breen, M. J., & Prasse, D. P. A comparison of the 1976 and 1978 Wide Range Achievement Test: Implications for the learning disabled. Journal of Learning Disabilities, 1982, 15, 15-16.
- Brown, R. T. A closer examination of the education for all handicapped children act: A guide for the 1980s. Psychology in the Schools, 1980, 17, 355-360.
- Brown, V. L., Hammill, D. D., & Wiederholt, J. L. The Test of Reading Comprehension: A Method for Assessing the Understanding of Written Language. Austin, TX: Pro-Ed, 1978.
- Buktenica, N. A. A multidisciplinary training team in the public schools. Journal of School Psychology, 1970, 8, 220-225.
- Butler, A. S. & Maher, C. A. Conflict and special service teams: Perspectives and suggestions for school psychologists. Journal of School Psychology, 1981, 19, 62-70.
- Christenson, S., Graden, J., Potter, M., Taylor, J., Yanowitz,

- B., & Ysseldyke, J. Current research on psychoeducational assessment and decision making: Implications for training and practice (Monograph No. 16). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1981.
- Epps, S., McGue, M., & Ysseldyke, J. E. Interjudge agreement in classifying students as learning disabled. Psychology in the Schools, 1982, 19, 209-220.
- Epps, S., Ysseldyke, J. E., & McGue, M. Differentiating ld and non-ld students: "I know one when I see one" (Research Report No. 52). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1981.
- Fenton, K. S., Yoshida, R. K., Maxwell, J. P., & Kaufman, M. J. Recognition of team goals: An essential step toward rational decision making. Exceptional Children, 1979, 45, 638-644.
- Frame, R. E., Clarizio, H. F., Porter, A. C., & Vinsonhaler, J. R. Interclinician agreement and bias in school psychologists' diagnostic and treatment recommendations for a learning disabled child. Psychology in the Schools, 1982, 19, 319-327.
- Gaskins, I. W. Let's end the reading disabilities/learning disabilities debate. Journal of Learning Disabilities, 1982, 15, 81-83.
- Gilliam, J. E. Contributions and status rankings of educational planning committee participants. Exceptional

- Children, 1979, 45, 466-468.
- Goldstein, S., Strickland, B., Turnbull, A. P., & Curry, L. An observational analysis of the iep conference. Exceptional Children, 1980, 46, 278-286.
- Hyman, I., Carroll, R., Duffey, J., Manni, J., & Winikur, D. Patterns of interprofessional conflict resolution on school child study teams. Journal of School Psychology, 1973, 11, 187-195.
- International Reading Association. Misuse of grade equivalents. Journal of Learning Disabilities, 1981, 14, 558.
- LaGrow, S. J., & Prochnow-LaGrow, J. E. Technical adequacy of the most popular tests selected by responding school psychologists in Illinois. Psychology in the Schools, 1982, 19, 186-189.
- Lieberman, L. M. Educational assessment. Journal of Learning Disabilities, 1982, 15, 186.
- Lieberman, L. M. Territoriality-who does what to whom? Journal of Learning Disabilities, 1980, 13, 15-19.
- Maher, C. A. A team approach to planning and evaluating personnel preparation programs in public schools. Exceptional Children, 1982, 49, 230-236.
- Maher, C. A., & Barbrack, C. R. Evaluation of the individualized education program: A comprehensive approach for special service teams. Psychology in the Schools, 1980, 17, 485-490.
- Matuszek, P., & Oakland, T. Factors influencing teachers'



- and psychologists' recommendations regarding special class placement. Journal of School Psychology, 1979, 17, 116-125.
- McDermott, P. A. Congruence and typology of diagnoses in school psychology: An empirical study. Psychology in the Schools, 1980, 17, 12-24.
- McHugh L. M. Similarities among diagnostic and prescriptive decisions made by reading specialists and 1d, title 1, and fourth-grade teachers. Journal of Learning Disabilities, 1982, 15, 545-548.
- Moore, J. & Fine, M. J. Regular and special class teachers' perceptions of normal and exceptional children and their attitudes toward mainstreaming. Psychology in the Schools, 1978, 15, 253-259.
- Morrow, H. W., Powell, G. D., & Ely, D. D. Placement or placebo: Does additional information change special education placement decisions. Journal of School Psychology, 1976, 14, 186-191.
- Naslund, R. A., Thorpe, L. P., & Lefever, D. W. SRA Achievement Series. Chicago: Science Research Associates, 1978.
- Nebraska Department of Education. NDE Rule 51 School Age Special Education Programs. Lincoln: Nebraska Department of Education, 1980.
- Newland, T. E. The search for the new: Frenzied, faddish, or fundamental? Journal of School Psychology, 1970, 8, 242-244.
- Pfeiffer, S. I. The problem facing multidisciplinary teams:

- As perceived by team members. Psychology in the Schools, 1981, 18, 330-333.
- Pfeiffer, S. I. The school-based interprofessional team: Recurring problems and some possible solutions. Journal of School Psychology, 1980, 18, 388-394.
- Phillips, B. N. The teacher-psychological specialist model. Journal of School Psychology, 1967, 6, 67-71.
- Raccioppi, R. M. The promise of public law 94-142: Issues in the diagnostic process. Journal of Learning Disabilities, 1982, 15, 218-220.
- Rosner, S. L., Abrams, J. C., Daniels, P. R., & Schiffman, G. B. Dealing with the reading needs of the learning disabled child. Journal of Learning Disabilities, 1981, 14, 436-448.
- Sabatino, D. A. School psychology-special education: To acknowledge a relationship. Journal of School Psychology, 1972, 10, 99-105.
- Salvia, J., & Ysseldyke, J. E. Assessment in special and remedial education (2nd ed.). Boston: Houghton Mifflin, 1981.
- Thurlow, M. L., & Ysseldyke, J. E. Factors influential on the psychoeducational decisions reached by teams of educators (Research Report No. 25). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1980. (a)
- Thurlow, M. L., & Ysseldyke, J. E. Instructional planning:

- Information collected by school psychologist vs. information considered useful by teachers (Research Report No. 30). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1980. (b)
- U. S. Department of Health, Education and Welfare. Education of handicapped children: Implementation of part B of the education of the handicapped act. Federal Register, 1977, 42, (163) 42476-42517.
- Wright, D. Evaluation of simulated decision making: A response to Ysseldyke, Algozzine, Regan, and Potter. Psychology in the Schools, 1980, 17, 541-542.
- Wright, D. Right for the wrong reasons: A clarification for Ysseldyke, Algozzine, Regan, and Potter. Psychology in the Schools, 1981, 18, 505-507.
- Yoshida, R. K. Multidisciplinary decision making in special education: A review of issues. School Psychology Review, 1980, 9, 221-227.
- Yoshida, R. K., Fenton, K. S., Maxwell, J. P., & Kaufman, M. J. Group decision making in the planning team process: Myth or reality? Journal of School Psychology, 1978, 16, 237-244. (a)
- Yoshida, R. K., Fenton, K. S., Maxwell, J. P., & Kaufman, M. J. Ripple effect: Communication of planning team decisions to program implementers. Journal of School Psychology, 1978, 16, 177-183. (b)
- Ysseldyke, J. E., & Algozzine, B. Diagnostic classification

- decisions as a function of referral information (Research Report No. 19). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1980.
- Ysseldyke, J. E., Algozzine, B., Regan, R., & Potter, M. On "unenlightening data" and "bogus problems:" A response to Dan Wright. Psychology in the Schools, 1980, 17, 543-544. (a)
- Ysseldyke, J. E., Algozzine, B., Regan, R., & Potter, M. Technical adequacy of tests used by professionals in simulated decision making. Psychology in the Schools, 1980, 17, 202-209. (b)
- Ysseldyke, J. E., Algozzine, B., Regan, R., Potter, M., & Richey, L. Psychoeducational assessment and decision making: Individual case studies (Research Report No. 33). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1980. (a)
- Ysseldyke, J. E., Algozzine, B., Regan, R., Potter, M., & Richey, L. Technical supplement for computer-simulated investigations of the psychoeducational assessment and decision-making process (Research Report No. 34). Minneapolis: University of Minnesota, Institute for Research on Learning Disabilities, 1980. (b)
- Ysseldyke, J. E., Algozzine, B., Regan, R., Potter, M., Richey, L., & Thurlow, M. Psychoeducational assessment and decision making: A computer-simulated investigation (Research Report No. 32). Minneapolis: University of

Minnesota, Institute for Research on Learning Disabilities, 1980.

Ysseldyke, J. E., & Marston, D. A critical analysis of standardized reading tests. School Psychology Review, 1982, 11, 257-266.