

# Reading Disability Referrals: Teacher Bias and Other Factors That Impact Response to Intervention

Gay Goodman<sup>1</sup>

University of Houston

Michael A. Webb

University of Houston

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*This study examined the reading achievement scores of 66 third- and fourth-grade students who were referred by their general education teachers on the basis of a suspected reading disability. Before a reading disability diagnosis was conducted, each student was reviewed by an Intervention Assistance Team and intervention assistance was provided. Nevertheless, all students were ultimately referred. Findings indicated that only 21 of the 66 students referred qualified as having a reading disability. Three other students qualified in another area of exceptionality. Forty-five percent of the students referred for a reading disability actually passed the state minimum competency reading test the same year they were referred for special education. The implications of these findings for the newly approved Response-To-Intervention method of diagnosing reading disabilities are discussed.*

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**Keywords: Biased Referrals, Teacher Bias, LD Overidentification, Reading Disability Referral, False Positive LD Diagnosis.**

The reauthorization of IDEA in 1997 emphasized the importance of preventive programs for struggling students in general education classrooms (Truscott, Cohen, Sams, Sanborn, & Frank, 2005). The hope was that these programs would decrease the numbers of students referred for special education and diagnosed as having learning disabilities (LD). Clearly, they did not. By 2003, three million students were diagnosed with LD (U.S. Office of Special Education, 2003). This figure includes over half of the students served by special education and related services. It also represents a 200% increase in the incidence of this disability since its inception 30 years ago (Vaughn, Linan-Thompson, & Hickman, 2003). Not surprisingly, these figures have prompted some authorities to refer to the prevalence of learning disabilities as an epidemic (Smith, 2004).

Overidentification is one of the reasons posited for increases in the incidence of learning disabilities (Fuchs, Fuchs, Bahr, Fernstrom, & Stecker, 1990). These “false-positive” cases are students who have been labeled with an LD, but presumably do not have one. Teacher referrals have been specifically targeted as a possible cause for the overidentification of students as LD, because it has long been known that a teacher’s decision to refer a student is one of the highest predictors of special education placement (Podell & Soodak, 1993). Over 20 years ago researchers (Ysseldyke et al., 1983)

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1. Please address correspondence to: Gay Goodman, Department of Educational Psychology, University of Houston, 4300 Calhoun Boulevard, Houston, TX 77204; E-mail: ggoodman@uh.edu

at the University of Minnesota's Institute for Research in Learning Disabilities concluded that students are often referred to special education for vague and subjective reasons. They are then automatically tested, and usually placed in special education by interdisciplinary teams that base their decisions on indefensible criteria.

Many of these same concerns with the referral process are still expressed today. For example, Vaughn and Fuchs (2003) note that the burden of screening students for LD falls upon the general education teacher, who may be unreliable at recognizing students who are failing and referring them for special education. Concern over the reliability and validity of teacher referrals, as well as other factors, has led Hosp and Reschley (2003) to conclude that the referral stage is the most important step in the eligibility process.

Inappropriate teacher referrals have been attributed to teachers' lack of preparation and competence, and to subjectivity in the judgments they make (Vaughn et al., 2003; Ysseldyke et al., 1983). Researchers have also examined the extent to which bias of one type or another might account for some of the inappropriate referral decisions. For example, Mamlin and Harris (1998) attribute the bias in special education referrals to teacher intolerance of inappropriate social behavior and student diversity, pointing out that academic problems alone can often be handled by the general education teacher without the need for a special education referral.

Other studies (Oswald, Best, Coutinho, & Nagle, 2003; Wehmeyer & Schwartz, 2001) have associated gender bias with the disproportionate ratio of males referred for special education. Further, in summarizing studies that examine teacher bias, Knotek (2003) mentions social class, ethnicity, and gender as factors that increase the likelihood of students being referred for special education. Similarly, Wehmeyer and Schwartz (2001) explain teachers' decisions to refer students for special education as being based on preconceived notions of the academic ability of students who are poor or are members of various minority groups.

Knotek (2003) points out that research has still not answered many questions related to the overidentification of students as learning disabled. Authorities also do not know the extent to which teacher bias may be responsible for this phenomenon. One thing many LD professionals agree on, however, is that prevention in general and the referral process, in particular, has gained increased attention and momentum since the reauthorization of IDEA in 2004. By allowing Response to Intervention (RTI) as an option for diagnosing learning disabilities, IDEA places "effective pre-referral intervention at the center of special education delivery and diagnosis" (Truscott et al., 2005, p. 130). Cartledge (2005) also stresses the importance of prereferral intervention by arguing that disability prevention programs have a significant influence on students who receive them. If this is the case, then the teacher's ability to correctly identify, prescribe, and implement research-based interventions for struggling students' academic and behavioral problems during the referral process is central to the success of RTI.

The momentum for allowing Response to Intervention as a method for diagnosing learning disabilities grew largely from dissatisfaction with the aptitude-achievement discrepancy (AAD) method of diagnosis. The ADD method, which until recently was considered the gold standard for diagnosing LD, requires that students exhibit a significant discrepancy between measures of their academic achievement

and measures of their aptitude. If these scores indicate that students are not achieving the academic potential indicated by their aptitude scores, it is assumed to be the result of a learning disability.

In their seminal article advising against a total abandonment of the AAD method, Scruggs and Mastropieri (2002) acknowledge that the method has been criticized for a variety of reasons. They note that one of the first criticisms to surface in discussions of the AAD approach is that this method has resulted in the overidentification of students labeled LD. Similarly, it has produced tremendous variability in the numbers of students identified in various states and by various agencies and school districts. In addition, the AAD method does not reliably distinguish students with LD from other lower achieving students, many of whom also need assistance in mastering the general education curriculum, but who do not qualify for services. Other criticisms revolve around the fact that there are conceptual and technical issues involved in AAD assessment and that this model, by definition, requires the student to “wait and fail” in the general education classroom before receiving appropriate instruction, thereby precluding the possibility of early intervention.

It is largely in response to these criticisms that many in the field of special education are advocating RTI as a superior method of diagnosing learning problems. In a discussion of the promise of this new technique, Fuchs and Vaughn (2003) point out that RTI prescribes early instructional interventions that are delivered to struggling students before they fail in school. By prescribing interventions early, RTI offers the potential of evaluating an at-risk student’s response to instruction on two dimensions, level of learning and rate of improvement. If students’ RTI determines that they are not discrepant from same-grade peers on both rate and level of learning, their learning problems could theoretically be remedied without the need for special education. Those found to be dually discrepant after a series of systematically documented, evidence-based interventions would then be eligible for a special education referral.

Documentation of the student outcomes of these interventions during the pre-referral stage could result in a redefinition of the learning disability construct that would no longer necessitate a discrepancy element. It could also possibly result in a reduction in the incidence of false positive and false negative diagnoses by providing systematic documentation of the student’s response to evidence-based intervention, thereby eliminating teacher bias from the referral process.

### ***Purpose of This Study***

Issues of early identification and referral are central to criticisms of the AAD method of diagnosing LD, as well as to the promise RTI holds for educators. As the field of special education continues to evaluate the most reliable and valid way to diagnose LD, it is important to establish whether teacher bias does, in fact, exist in this crucial phase of the identification process. If so, educators need to know which demographic variables and/or student characteristics are most likely to result in a biased referral (i.e., false positive identification). Such information will be pivotal in evaluating whether or not RTI has resulted in redefining LD and diagnosing it in a way that eliminates the element of bias. Unfortunately, studies (Knotek, 2003; Oswald et al., 2003; Wehmeyer & Schwartz, 2001) seeking to examine and explain

inappropriate teacher referrals of students in various subgroups (i.e., gender groups, minority students, poor students, students with poor social behavior) often base conclusions of bias largely on the overrepresentation of these subgroups in the number of referrals and subsequent placements of these students in special education.

Interesting, many of the demographic variables and student characteristics associated with inappropriate teacher referrals, such as socioeconomic status, English proficiency, familial factors, mental maturity, and presence in large minority urban settings, are also known to have a negative effect on reading ability (Bishop, 2003; Gonzalez & Nelson, 2003). This is an important finding, since 90% of the students labeled with an LD are certified with a disability in reading (Kavale & Forness, 2000). To date, studies have not attempted to determine whether or not inappropriate and biased referrals would be found if more objective criteria like reading assessment data were examined for the subgroups of students who are disproportionately referred for and placed in special education.

The purpose of this study was to examine the curriculum-based reading assessment data of third- and fourth-grade students who were referred for a special education evaluation based on a presumed reading disability. It was believed that examining these students' reading test scores might provide more objective information related to the teacher's decision to refer than traditional approaches. It is assumed that if students referred for special education earn a passing score on the state-mandated, criterion-referenced reading achievement test, it could be presumed that, even though the referral was for a suspected reading disability, the factors that prompted the referral were unrelated to the reading process; and that, therefore, bias in the teacher referral might be inferred.

In addition to examining the curriculum-based reading assessment scores of students who were referred for special education, the study was also designed to obtain demographic data for each subject's gender, ethnicity, and language (i.e., native English speaker or limited-English proficient). These data were collected to be able to compare the demographic characteristics of the referral sample to demographics for the remainder of the school population to determine whether or not a disproportionate number of male or female students, minority students, or students with Limited-English Proficiency (LEP) were included in the referral population.

## METHOD

To examine the possibility of teacher bias in special education referrals, archival data of 66 third- and fourth-grade students referred for special education during a three-year period were analyzed. All subjects attended a large, suburban neighborhood elementary school. The school is located in a low socioeconomic neighborhood in the Southwest and is considered culturally and linguistically diverse. Approximately 86% of the students are classified as economically disadvantaged.

Before an initial referral for special education services was made by the classroom teacher, a campus-based Intervention Assistance Team (IAT) provided intervention assistance. Nevertheless, an educational need was ultimately documented, and a special education referral was processed for each subject. All subjects in the sample were referred for special education due to a suspected reading disability. Students referred for speech, mental retardation, behavioral issues, medical, and math concerns were excluded.

Data contained in each of the 66 subjects' cumulative folders were categorized according to whether or not the student met the minimum standard on the Texas Academic Knowledge and Skills (TAKS) reading test. The TAKS is a curriculum-based assessment that measures portions of the Texas statewide curriculum in grades 3 through 11. In grade three, students are tested in reading and math, while fourth-grade students are assessed in reading, math, and writing. In the area of reading for both the third- and fourth-grade tests, four reading objectives are assessed: basic understanding, knowledge of literary elements, analysis using a variety of strategies, and analysis using critical thinking skills. According to the Texas Education Agency (TEA), this assessment is a valid and reliable measure of "on grade level" student performance. That is, students meeting minimum standards on the test are considered to be at, or near, that grade's instructional level, as specified by TEA curriculum (Texas Education Agency, Pearson Educational Measurement, Harcourt Educational Measurement & Beck Evaluation and Testing Associates, Inc., 2005).

The *TAKS Technical Digest* (Texas Education Agency, Pearson Educational Measurement, Harcourt Educational Measurement & Beck Evaluation and Testing Associates, Inc., 2005) includes a discussion on reliability that lists the obtained alpha coefficients for each of the TAKS tests. These alpha coefficients serve as measures of the test's internal consistency. Measures of internal consistency for the African American, Hispanic, and Anglo American ethnic groups for the third- and fourth-grade TAKS are all within the high range ( $\leq .80$ ). The overall reliability for the third- and fourth-grade TAKS is as follows: Third-grade reading TAKS, alpha = .892; fourth-grade reading TAKS, alpha = .895.

The test developers of the TAKS (Texas Education Agency, Pearson Educational Measurement, Harcourt Educational Measurement & Beck Evaluation and Testing Associates, Inc., 2005) indicate that the "primary evidence" for the validity of the tests resides in its accurate representation of the content being measured (p. 146). To ensure content validity of the TAKS, committees of Texas educators were appointed to assess and to develop test objectives, formulate item guidelines, and specify test item types. To further ensure the validity of the test, the TAKS is evaluated periodically through field assessment and committee review. Findings from these procedures are used to examine both content validity and bias. The *Technical Digest* reveals no indication of bias within the TAKS.

Except for other tests prepared by the Texas Education Agency, the *Technical Digest* does not provide correlations of the third- and fourth-grade TAKS tests with other measures of reading achievement. However, the authors of the *Technical Digest* report that the TAKS testing is aligned with other measures of the state curriculum such as the State Developed Alternative Assessment (SDAA). In addition, the ninth-grade and exit-level forms of the TAKS serve as accurate predictors of student performance on college entrance tests.

After TAKS results were recorded for each of the subjects in the referral sample, the subjects were divided into two groups, those who met minimum standards on the TAKS test and those who did not. Ethnicity, gender and language, as well as placement decisions, were then noted for each group.

## RESULTS

Following data collection, the demographic characteristics of students in the referral group were compared to those of the remaining students in the school. The distribution of demographic characteristics for both groups is shown in Table 1.

**Table 1**  
*Cross-Tabulation Summary of Demographic Characteristic for Students Referred for Special Education Compared to Remaining School Population*

Subjects	Ethnicity				Gender		Language	
	N	Anglo	AfAm	Hisp	M	F	LEP	Eng.Pro.
Total Sample	66	3	33	30	35	31	19	47
Remaining Students	892	26	321	535	450	442	393	499
School Demographics	958	29	354	565*	485	473	412	546

Note: AfAm = African American; Hisp = Hispanic; LEP=Limited English Proficiency; EngPro; English Proficiency; Anglo=Anglosaxonic; M=Male; F=Female.

\*remaining 10 students were in the “other” ethnic category.

Proportional gender, ethnic, and language differences in the two groups were analyzed by computing Pearson chi-square cross-tabulations. Results of the chi-square analyses indicated that there was no significant difference when comparing the number of males and females in the sample to the number of males and females in the school-wide population. Similarly, there was no significant difference between the ethnic demographics of the sample when compared to the school’s population. The number of native English speakers in the referral sample group, however, was significantly higher than might be expected, given the demographics of this school,  $\chi^2(2, N = 66) = 5.846, p < .05$ . This finding indicates that students identified as LEP were not referred for special education services as often as would be anticipated for a school whose student population is 43% LEP. The LEP population of the school is comprised of students enrolled in a bilingual or English as a second language (ESL) classroom.

Table 2 shows the cross-tabulation summary for subjects in the referral group. Subjects who met minimum standards on the TAKS and those who did not were compared on the basis of their eligibility status for special education, as well as on the demographic characteristics of gender, ethnicity, and language.

Of the 66 third- and fourth-grade students in the referral sample, only 21 were diagnosed as reading disabled. Three of the others qualified for special education services, two under the emotionally disturbed and one under the other health impaired categories. Together, they represent 36% of the sample population. The remaining 42 students were found ineligible for special education based on the AAD

method of diagnosis. Further examination indicated that over half (40) of those referred met minimum, grade-level reading standards on the TAKS in the same year they were referred for special education due to a presumed reading disability. This figure represents 45% of the total group who were referred. Thus, even though they passed the reading portion of the TAKS, 11 (16.6%) of the 40 who passed the test qualified as having a reading disability anyway.

Table 2

*Cross-Tabulation Summary of Students Referred for Special Education Who Met Minimum Standards on the TAKS Reading Test and Students Who Did Not*

Subjects	Qualified			Do Not Qualify	Ethnicity			Gender		Language	
	N	LD	Other		Anglo	AfAm	Hisp	M	F	LEP	Eng.Pro.
Met TAKS Standards	40	11	2	27	3	19	18	19	21	10	30
Did Not Meet TAKS Standards	26	11	1	14	0	14	12	10	16	9	17
Total Sample	66	22	3	41	3	33	30	29	37	19	47

Note: AfAm = African American; Hisp = Hispanic; LEP=Limited English Proficiency; EngPro; English Proficiency; Anglo=Anglosaxonnic; M=Male; F=Female.

## DISCUSSION

Results of this preliminary study were puzzling, as well as troubling. First, there appeared to be no gender or ethnic bias in the referrals made by participating teachers. This is in sharp contrast to results of other studies reported in the professional literature. The hope is that this is an indication that teachers are becoming more comfortable and accepting of the diverse characteristic of various student groups. However, it cannot be overlooked that the lack of bias in ethnic referrals may have been influenced by the fact that a vast majority of the students who attended this school were members of minority groups. That is, since there were few Anglos, bias in minority referrals may not have been adequately assessed.

Another unexpected finding was that a significantly larger number of native English speakers was referred for special education than might be expected based on the proportions of these students in the school population as a whole. This is the reverse of what might be anticipated. While previous studies have not examined language bias in teacher referrals, some studies (Mamlin & Harris, 1998; Wehmeyer & Schwartz, 2001) do indicate that cultural diversity, which is often associated with LEP, is more likely to result in a special education referral. The present study found that students with LEP were less likely to be referred for special education. One explanation for this finding might be that all the LEP students received classroom instruction in ESL and bilingual classrooms. Possibly these teachers demonstrate a higher degree of the cultural reciprocity and culturally responsive teaching practices described by Fierros (2005) than general education teachers in these schools do.

While there did not appear to be a greater likelihood that participating teachers would refer boys, members of minority groups, or LEP students for special education, there did appear to be considerable bias, or at the least subjectivity and incompetence, in the referrals made. This conclusion is based on the fact that almost half of the subjects in the referral group met minimum competency standards for the appropriate grade level on the state-mandated reading achievement test. Since these students demonstrated the ability to read at the appropriate grade level, it is assumed that something other than reading disability accounted for their referral. Lack of student motivation may be an explanation for these contradictory findings. Even though intervention teams who worked with the teachers on planning intervention assistance ultimately documented the students' educational need for special education, the main criterion for their documentation was failing grades. It is possible that these are students who "can, but won't." The students may have been apathetic and failed to meet classroom academic expectations required for success, but were motivated by the fear of failure to exert their best efforts on the state mandated TAKS. A tremendous amount of attention is paid to this test, along with pressure on teachers and students alike to pass it. Thus, district, school, and classroom passing rates are often made public. In addition, third-grade students who fail this exam are retained.

Another troubling finding of this study was that of the 40 students who passed the reading achievement tests, 11 were diagnosed with a reading disability anyway. Since the AAD method was used in the diagnostic process, it could be assumed that these students demonstrated average reading ability, yet met the learning disability criteria due to an above-average aptitude score. While data were not collected demonstrating this effect, what does seem clear is that if the students are "on grade level" readers, they are clear cases of "false positive" diagnoses of reading disability. This supports the findings of Pollack and Soodak (1993), who emphasized the predictive validity of teacher referrals when considering special education placement outcomes. Also supporting Pollack and Soodak was the finding that of the students referred for a reading disability, three qualified for special education in another IDEA category. This unexpected finding may indicate that diagnosticians are more inclined to search for another area of eligibility than to recommend instructional accommodations in the general education classroom.

Finally, it is important to note that of the 66 students referred and tested for special education, only 24 qualified. The financial implications of referring and testing a population of students for which two thirds are deemed ineligible for services cannot be overlooked. The cost of the assessment is essentially wasted since neither special education placement nor service delivery results. Such waste is especially unfortunate since AAD assessment fails to produce the type of assessment information that can be used to guide the general education teacher in selecting more effective instructional methods and materials (Vaughn & Fuchs, 2003).

Collectively, the findings of this study should raise a red flag for stakeholders in education who have high hopes for the RTI method of diagnosing learning disabilities. Those who support RTI believe that effective intervention assistance can ultimately reduce the numbers of students identified and placed in special education. They also believe that this strategy will be effective in meeting the needs of struggling students who are not served using the AAD model. Nevertheless, many are calling for further research



to ensure the success of RTI (Fuchs, 2003; Fuchs, Mock, Morgan, & Young; 2003; Speece, Case, & Molloy, 2003; Vaughn & Fuchs, 2003; Vaughn et al., 2003). The importance of their call was made clear by the examination of these teacher referrals and the ineffective interventions that preceded them. All of the interventions as well as the referrals were sanctioned beforehand by an IAT, yet a referral ensued.

IATs are not unique to RTI. Many states have required them for years prior to an AAD assessment. Long before RTI was proposed as a diagnostic model, about half of the states required teachers to document the use of intervention assistance before processing a special education referral (Carter & Sugai, 1989). However, research shows that teachers believe intervention teams prescribe unsubstantial interventions and respond with minimal follow-up. In fact, a recent ethnographic study (Slonski-Fowler & Truscott, 2004) reports data illustrating teachers' disenchantment with the referral process in general. These findings point to the fact that IATs must be able to provide referring classroom teachers with well-researched, empirically validated identification procedures and intervention strategies if RTI is to be effective in reaching its two primary objectives.

These findings should also serve as a wake-up call for teacher educators. That is, they point to the need for a conduit to ensure that "best practices" trickle down to the practitioners responsible for identifying struggling students and implementing intervention assistance for them on a daily basis. Currently, most RTI research reported in the professional literature examines effective interventions (Berninger, 2002; Cavanaugh, Kim, Wanzek, & Vaughn, 2004; Gonzalez & Nelson, 2001; Haager & Windmueller, 2001) that focus on teaching/learning strategies for remediating academic deficits. Based on the finding of this study, attention should also be given to identification procedures and motivational strategies. The students who were referred for special education by participating teachers were all earning failing grades, yet, they were capable of reading, which has been posited as the number one reason students fail in school.

Students' failure to achieve in the classroom and their subsequent referral to special education may also involve teachers' sense of efficacy. A high sense of teacher efficacy relates to teachers' beliefs that all students are capable of learning in the classroom and that they are capable of teaching them. In other words, teachers who possess a high sense of efficacy believe that they can control events in the classroom and produce desired learning outcomes (Rimm-Kaufman & Sawyer, 2004). To a certain extent, special education programming may have negatively impacted teacher efficacy by creating a process in which all struggling learners were immediately removed from the classroom to receive individualized instruction in more restrictive settings.

In addition to teacher efficacy, the results of a study (unrelated to this one) conducted in the same school district by Texas A&M University (Carter, 2005) found that the teachers believe student achievement problems are caused by circumstances outside the purview of the school. It seems, therefore, that part of the IAT's responsibility is to not only equip teachers with identification and intervention strategies, but also to restore their sense of efficacy and their view that classroom teaching relates directly to student achievement outcomes.

This study answers few, if any, of the questions pressing special educators today. It does, however, highlight many of the issues that impact the likelihood that RTI will achieve its objectives. These issues have been described at length by other authors (Scruggs & Mastropieri, 2002; Vaughn & Fuchs, 2003). They include the need for

redefining LD and the constructs that are required to support its implementation, accurately linking assessment to prescribed interventions, providing valid and reliable intervention models and methodology and assuring due process. Foremost among these issues is the need to adequately prepare personnel.

Results of this study indicate that teacher preparation must focus not only on ensuring that teachers have validated intervention models and methods, but also on developing expertise in accurately and separately identifying students who have a learning disability from other students who are not achieving for other reasons.

Researchers and teacher educators, as well as practitioners, would be advised to address these issues with larger samples sizes and more sophisticated analyses to determine whether or not the findings reported here are widespread. This study involved a relatively small number of reading disability referrals in one urban school district, and cannot be generalized to other venues in the population at large.

Additional studies are needed to substantiate the findings of this study. If the findings are widespread, the chances of RTI achieving its goals will not only be reduced; RTI could become a fast track for special education referral, diagnosis, and placement of low-performing students in restrictive educational venues. For example, if the 66 students in this sample had been diagnosed on the basis of RTI, the number of students qualifying for services might have been much greater, thereby increasing the number of students diagnosed as having learning disabilities rather than decreasing the proportionally high number of students so classified. On the other hand, these students might have spent an undue amount of time in the sort of RTI limbo described by Vaughn and Fuchs (2003), who note that there is a potential for these students “to get caught in a cycle where they linger between general education and some layer of services short of special education” (p. 144) without due process or parental input.

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**Gay Goodman** is a professor in the Department of Educational Psychology at the University of Houston. She is assigned to the Special Education and Individual Differences Program Areas. She also serves as the field coordinator of Quest 2, the preparation program for undergraduate elementary school teachers. Her research interests are in the area of learning disabilities, classroom management, and teacher education. **Michael A. Webb** is an advanced doctoral candidate at the University of Houston majoring in Individual Differences with an emphasis in Special Education. He is also on the faculty in Aldine Independent School District. His research interests are in the area of learning disabilities with a focus on intervention assistance, response-to-intervention, and issues impacting learning disability diagnosis.

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