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The paper summarizes preliminary results from a study of practices with language minority (Hispanic) students referred for special education in large urban districts. A data collection instrument was developed to record information on such topics as student characteristics, family background, referral, assessment, individualized education program (IEP) information, and language assessment data. General characteristics of the referral process in one district (background, language usage, grades, current placements, IEP team participation, and group differences) are reported. A path model was developed using causal modeling techniques to examine possible factors leading to diagnoses of either learning disabilities or language impairment. Five variables in the model were found to have a direct effect on placement category after the effect of all the other variables had been controlled: sex, language scale, psychometric team, IQ test administered, and age. Findings revealed a surprising frequency of the language impaired designation. In general, findings were replicated in a second district. (CL)
A PREDICTIVE ANALYSIS OF DECISION-MAKING PRACTICES WITH LIMITED ENGLISH PROFICIENT HANDICAPPED STUDENTS

by Dr. Robert Rueda and Dr. Jane Mercer

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Following the early work of Mercer (1973) on labeling practices with mentally retarded students, a significant literature has developed around the issues of categorization and labeling specifically focused on minority students. Much of this work has been focused on the issue of overrepresentation, especially in classes for mildly retarded learners. More recently, issues surrounding the education of linguistic minority students have begun to receive increasing attention (Baca & Cervantes, 1984; Cummins, 1984). Unfortunately, attempts to address the complex issues encountered where both linguistic and cultural differences are present are not presently informed by an empirical knowledge base. In many cases, for example, the
numbers and characteristics of linguistic minority students with learning problems served by school districts are difficult to obtain, since the special education and bilingual bureaucratic structures are institutionally s. t.e.

One factor which has served to increase pressures on public schools to address the needs of linguistic minority students is based upon legal mandates such as those stemming from the out of court settlement of Diana vs. California State Board of Education (1969). However, an additional factor is found in an examination of demographic data from some areas of the country which suggest that there have been rapid and dramatic changes in the numbers and types of students being served in public school settings. As an example, figures from the Los Angeles Unified School District (LAUSD, 1983), one of the largest in the nation with over 500,000 students, shows the shifting enrollments of Anglo and Hispanic students over the last few years. These figures are presented in Table 1.
TABLE 1

Racial/Ethnic Proportions by Year for Los Angeles Unified School District, Grades K-12

<table>
<thead>
<tr>
<th>Year</th>
<th>Hispanic</th>
<th>White, Non-Hispanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>25.6</td>
<td>44.4</td>
</tr>
<tr>
<td>1974</td>
<td>27.8</td>
<td>41.9</td>
</tr>
<tr>
<td>1975</td>
<td>29.7</td>
<td>40.2</td>
</tr>
<tr>
<td>1976</td>
<td>32.1</td>
<td>33.7</td>
</tr>
<tr>
<td>1977</td>
<td>34.9</td>
<td>22.5</td>
</tr>
<tr>
<td>1978</td>
<td>38.5</td>
<td>21.7</td>
</tr>
<tr>
<td>1979</td>
<td>41.6</td>
<td>20.7</td>
</tr>
<tr>
<td>1980</td>
<td>45.2</td>
<td>19.7</td>
</tr>
<tr>
<td>1981</td>
<td>47.6</td>
<td>18.5</td>
</tr>
<tr>
<td>1982</td>
<td>49.1</td>
<td>17.7</td>
</tr>
<tr>
<td>1983</td>
<td>50.5</td>
<td>16.7</td>
</tr>
</tbody>
</table>

As the figures demonstrate, there has been almost a complete reversal of the proportions of students from these two groups in a short ten year period. As a result, there are many more linguistic minority students that require specialized services. Although this is certainly not true in all districts or in all areas of the country, it does appear to be characteristic of large urban school districts in certain parts of the Southwest. However, at the present time, there is little data available to
address questions regarding current practices with these students where learning problems are suspected.

As part of an attempt to investigate the nature of current practices with language minority students referred for special education services, a large scale study was undertaken in several school districts in the Southern California area (Rueda, Cardoza, Mercer, and Carpenter, 1985). All Hispanic students who were initial referrals any special education services during the 1983-1984 school year were included in the study. The final sample for this large study included 1319 students in eight districts. The work to be described here is a brief summary of the emerging patterns of results from the preliminary analyses of data from two districts in this larger investigation. The first part of the article is a description of referral patterns from one of the first districts examined in the study (Mercer, 1985). In an attempt to test the generalization of these initial findings, a similar set of analyses were conducted in an examination of a second district. These preliminary findings will be presented in the following sections.

**METHOD**

**District and Subject Selection Procedures**

Since the intent of this study was to examine large urban school districts with high percentages of language minority students, specific criteria were operationalized to guide selection of districts for possible inclusion in this study. First, all school districts with over 10,000 students total in the district were initially included as potential participants.
Additionally, a second criterion was that there be 200 or more Hispanics in the categories of EMR or LD (to insure that there be sufficient numbers of Hispanic special education students would be available for study). Finally, districts were required to fall within the upper 50% of surrounding districts in the county in terms of enrollment of Hispanic students in the general school population. Examination of relevant data bases suggests that the schools included in this study tended to have large language minority enrollments, large numbers of students from low SES backgrounds, and lower percentile rankings on the statewide assessment program (Rueda et al, 1985). From an initial pool of fourteen districts meeting these criteria, eight districts participated in the study.

Although there are certainly many language minority groups in the study area, Cegelka et al (1984) indicated that approximately 76% of the state's 400,000 limited English proficient (LEP) students are Spanish-speaking. Therefore, only Hispanic students were included as part of this study. The students comprising the final sample included all those Hispanic students newly referred for special education consideration in each of the participating school districts during the 1983-84 target school year. This was operationally defined to include all students referred after July 1, 1983 until the period of June, 1984. Further, this was defined to mean the period after the local review team had seen the child, if such an entity

Data Collection Instrument

The data source for this investigation was student school file records. A data collection instrument was developed which
permitted systematic recording of pertinent information in such areas as student characteristics, family background, referral, assessment, past academic achievement, IEP information, language assessment data, etc. Specially trained graduate research associates collected all available pertinent data from psychological and academic files. More detailed information on the development of the instrument, specific data collection procedures, as well as a copy of the actual data collection protocol, is contained in Rueda, Cardoza, Mercer, and Carpenter (1985). Once collected, all data were coded for later descriptive and predictive analyses.

RESULTS

General Characteristics of the Referral Process in District One

Background Characteristics

In the first district examined, it was found that there were 141 cases with data on approximately 30 variables with sufficient data for analysis (see Mercer, 1985). Examination of the frequency distributions revealed several interesting characteristics of the referral and assessment process in this particular district. The referrals were 61% male. The average age at referral was 9.6 years, and only 11% of the referrals were over twelve years of age. As might have been predicted, the bulk of referral activity takes place in the early elementary grades.

Language Usage

Approximately 75% of the students referred were born in the United States and two-thirds were rated as "fluent" English speakers by the schools which they attended. The five questions of the Home Language Scale were found to be
highly correlated and therefore these five items were combined into a single scale. Responses to each question on the scale were scored "1" for English and "2" for Spanish, and the summed scores were then combined. The possible range of scores was from 5 (all English responses) to 10 (all Spanish responses). The scores were distributed as follows: 5 = 21.3%; 6 = 5.0%; 7 = 8.5%; 8 = 16.3%; 9 = 3.5%; 10 = 45.4%. Clearly the modal score was 10, indicating a preponderance of Spanish language usage at home.

Grades Since grades were found to be highly intercorrelated, a scale was developed in which the grades were added together for five different subjects (reading, math, language, science, and behavior). An "A" was given a score of 5, a "B" was given a score of 4, and so on. Therefore, the total score on the scale for a given student could range from 5 through 25, with a higher score indicating higher grades. The range for students in this sample was 6 to 22, with a mean of 13.9.

Current Placements Current placements were as follows: 22.7% were in the regular classroom; 30.5% were in the resource room; 26.2% were receiving designated instructional services; 14.2% were in special day classes in regular school settings; and 2.8% were in special classes in special schools. None were reported to be in bilingual classes or in ESL programs. "language impaired"; 26.4% were called "learning disabled"; 8.5 were in other categories of disability, and 18.4% were not labeled as disabled.
IEP Team Participation

Analysis of the data.

There were 111 students for whom an IEP meeting was held. Parents were present at 98 of the meetings, regular classroom teachers were present at 24 meetings, special educators at 66 meetings, psychologists at 60 meetings, and speech specialists at 68 meetings. There were no meetings attended by a parent advocate, only one meeting attended by a bilingual specialist, and two meetings attended by the student being evaluated.

In order to more closely examine the patterns of participation, the presence of each specialist was "dummy coded" such that presence at the meeting was scored as 1 and absence was scored as 0. The intercorrelations among the specialists present produced the interesting pattern shown in Table 2.

TABLE 2.

Intercorrelations among Persons Present at IEP Meetings

<table>
<thead>
<tr>
<th></th>
<th>special educator</th>
<th>psychologist</th>
<th>speech specialist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Teacher</td>
<td>.30</td>
<td>.35</td>
<td>-.18</td>
</tr>
<tr>
<td>Special Educator</td>
<td>.78</td>
<td></td>
<td>-.33</td>
</tr>
<tr>
<td>Psychologist</td>
<td></td>
<td>-.34</td>
<td></td>
</tr>
</tbody>
</table>

As the correlation table indicates, those meetings attended by the special educator are also very likely to be attended by the psychologist and, to a lesser extent, by the classroom teacher. Those meetings attended by the speech specialist are
significantly less likely to include a special educator, classroom teacher, or a psychologist. Clearly there are two types of IEP meeting. One type clusters around the psychologist and special educator and the other type centers around the speech specialist with the classroom teacher slightly more likely to attend the former.

Group Differences

Examination of the diagnostic categories to which students were assigned indicated that the primary designations were language impaired, learning disabled, and nonlabeled. In the attempt to examine variables which differentiated between the groups, a series of analyses of variance were conducted. The results of these analyses indicated that males were more likely to be labelled "learning disabled" while females were more likely not to be labelled as having a disability. Those labeled as "language impaired" were more more likely to have a speech specialist at their meeting, while those labelled "learning disabled" were more likely to have a psychologist, special educator, and classroom teacher at their IEP meeting. The learning disabled students were found to be in more restrictive settings than the language impaired, who were in turn in more restrictive settings than those not labeled. This same pattern was evident regarding participation in the regular classroom. The learning disabled had the least participation, the language impaired intermediate participation, and the nonlabeled students the greatest participation. No differences were found on the following variables: birthplace, year entered district, who the student lived with, grade in school, number of absences in 1983, number of retentions, hearing problems, vision...
problems, language student spoke first, language student uses at home, language parent uses with student, primary language, total number of tests administered during assessment for special education, number of tests administered in Spanish, presence of parents at IEP, presence of student at IEP, presence of bilingual specialist at IEP.

A Path Model of Diagnostic Category in District One

Since the two diagnostic categories of learning disabled and language impaired accounted for the bulk of the cases, causal modeling techniques were employed to examine the possible factors leading to one or the other diagnosis. A tentative path model was developed using placement category as the dependent variable (nonlabeled students were not included in this analysis).

Variables in the Model

Causal modeling is based on multiple correlational analysis and the use of standardized beta coefficients to indicate the strength of the relationship of the variables in the model. The exogenous variables in the tentative model included sex, the score on the Home Language Scale, the student's birthplace, and age. It was assumed that these independent variables were not influenced by the other variables in the model.

Language level was the most recent rating given to the student by the school in English language proficiency (0 = Non-English speaking, 1 = Limited English speaking, 2 = Functional English, and 3 = Fluent or Proficient English speaking).

Grades were treated as an endogenous variable, i.e., it was assumed that they are influenced by all earlier variables, but that the reverse was not true.
The nature of the assessment team was also treated as endogenous. A "psychometric scale was created in which a given specialist was scored a "1" for being present at the IEP meeting or a "0" for being absent. When the psychologist, special educator, and classroom teacher (the "psychometric cluster") were all present, the score assigned was 3. When none were present, the score was 0. The higher the score on this scale, the more the team tended to be dominated by the "psychometric" type of IEP team.

The final variable in the model was whether the IQ test was administered. Since not all students referred are given the WISC-R, it was hypothesized that the prior variables in the model would influence whether the IQ test was given and this would in turn influence the final diagnostic outcome.

The proposed model was tested by calculating all possible direct and indirect path coefficients in the model. Only those paths which were significant at the .05 level are included in Figure 1.
Figure 1

TELEPATH MODEL

DEPENDENT VARIABLE = Placement Category
Findings for the Path Model

The predictor variables in the path model produced a multiple correlation of .687 and an R square of .4715. This indicates that the variables in the model account for approximately 47% of the variance in placement decisions.

There are five variables in the model which have a direct effect on placement category after the effect of all the other variables have been controlled. These include sex, language scale, psychometric team, IQ test administered, and age. Being male, coming from a family that speaks more English, being older, having an IQ test, and being evaluated by a psychometrically oriented team are all associated with being defined as learning disabled.

In addition to the direct effects, there are other variables which influence the placement decision indirectly through mediating variables. Each variable will be briefly discussed moving from left to right in Figure 1.

Sex

In addition to its direct effect, sex has an indirect effect on placement through its effect on IQ administration. Males are more likely to be administered an IQ test which, in turn, is correlated with being labeled learning disabled. Sex also has a small indirect effect through the Language Scale. Males are slightly more likely to come from homes where English is spoken more frequently.

Language Scale

In addition to its direct effect, language scale also has an indirect effect on placement category through its relationship with the student's language level.
Those in mainly Spanish speaking homes have a lower language level in English which produces lower grades and this in turn increases the probability that they will have a psychometrically oriented team and will be administered an IQ test.

**Birthplace** Birthplace has no direct effect on placement but does indirectly influence placement through its relationship with language level and with the probability of getting a psychometric team. Interestingly enough, students who are foreign born tend to have a higher language level, i.e., to be more fluent in English than U.S. born Hispanics when sex, home language, and age are controlled. This produces higher grades and a decreased likelihood of being evaluated by a psychometrically dominated assessment team. The foreign born student is less likely to be psychometrically evaluated and, consequently, more likely to be called "language impaired" when all other variables are held constant.

**Age** In addition to its direct effect on placement, age influences placement indirectly through three paths. Age is associated with the Home Language Scale such that older students are more likely to come from families that speak more Spanish. This in turn depresses their language level and grades and makes it more likely they will get a psychometric team, which increases the probability of being labeled as "learning disabled". Additionally, having a psychometric team increases the probability of receiving an IQ test which increases the probability of being labeled learning disabled. Age also directly influences the probability of getting a psychometrically oriented assessment team—older students have a higher
probability. Age also directly affects the probability of being administered an IQ test—older students are more likely to be administered the test.

**Language Level** The student's language proficiency in English does not have a direct effect on placement. Rather, indirectly affects placement through its relationship with the student's grades that, in turn, influence the probability of getting a psychometric team and an IQ test. Students who are more proficient in English receive better grades in school and are less likely to receive a psychometric evaluation and, consequently, are less likely to be administered an IQ test. The latter decreases the probability of their being defined as "learning disabled" while the former increases the probability. The psychometric team has slightly more weight than the IQ test administration.

**Grades** Grades affect placement only indirectly through their influence on whether the student will receive a psychometric team for the evaluation and whether an IQ test will be administered. Students with higher grades are less likely to have a psychometric cluster at the IEP meeting and are, consequently, less likely to receive an IQ test.

**Summary of Findings in District One** The preliminary analysis of available data from this first district examined suggest some interesting patterns which merit attention. For example, based on Mercer's early 1973 study, and on more recent data from both from California (Twomey, Gallegos, Anderson, Williamson, and Williamson, 1980) and throughout the United
States (Heller, Holtzman, & Messick, 1982), it was expected that mild mental retardation would be a more frequent diagnostic category. However, the data from this district indicate that by far the most frequent categories were learning disabled and language impaired, whereas the EMR designation was very infrequent. The frequency of the language impaired designation was surprising in light of the fact that it has not received attention in the literature on linguistic minority students with suspected learning problems. Although this category is certainly not new in the field of special education, the apparent increase in its use appears to be a recent development.

Related to the increased use of the language impaired designation is the apparent increase in the visibility of the speech specialist in decision making involving Hispanic students referred for special education. In this district, for example, special educators attended 66 IEP meetings, while speech specialists attended 68 of the 111 meetings examined. In fact, the speech specialist formed one of the IEP team "clusters", while the psychologist, special educator, and classroom teacher formed the other. The rather large beta coefficient from "psychteam" to "category" suggests that the type of team assembled has a direct and significant effect on the eventual diagnostic outcome.

One of the most interesting findings of the analysis of this district regards the nature of the data used. Since the primary data source consisted of student files, analyses such as the path model which was developed, were limited to available variables with sufficient data. That is, the variables available for...
analysis depended entirely upon the types of information maintained in district records and the consistency with which the information was recorded by district specialists. As might be imagined, there was a great deal of missing data in individual student files, for example scores on standardized tests, etc. Therefore, some of the variables included in the model were not as exact as might as have been hoped for. As an example, in place of individual assessment data, the rather gross measure substituted was whether the IQ test was administered or not. In spite of this obvious limitation in the data source, the amount of variance accounted for by the path model was relatively high.

Although the preliminary data from the district examined raised intriguing questions, a primary concern was the extent of the generalizability of the patterns uncovered. In order to address this concern, data from a second district in the study was analyzed in a similar fashion. The results of this second analysis are presented in the following paragraphs.

The Referral Process in District Two

Diagnostic Categories

The total number of Hispanic students in District Two referred for special education was 215. Table 3 presents the diagnostic categories to which these students were eventually assigned.
### TABLE 3.
**Diagnostic Categories of Referred Students**

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aphasia</td>
<td>0.3</td>
</tr>
<tr>
<td>EMR</td>
<td>4.82</td>
</tr>
<tr>
<td>Hard of hearing</td>
<td>0.66</td>
</tr>
<tr>
<td>Language Impaired</td>
<td>24.20</td>
</tr>
<tr>
<td>Learning Disabled</td>
<td>54.96</td>
</tr>
<tr>
<td>Multiply handicapped</td>
<td>0.65</td>
</tr>
<tr>
<td>Other handicap</td>
<td>2.90</td>
</tr>
<tr>
<td>Orthopedically handicapped</td>
<td>0.32</td>
</tr>
<tr>
<td>Partially sighted</td>
<td>0.32</td>
</tr>
<tr>
<td>Emotionally dist.</td>
<td>0.65</td>
</tr>
<tr>
<td>TMR</td>
<td>0.65</td>
</tr>
<tr>
<td>Other except.</td>
<td>2.58</td>
</tr>
</tbody>
</table>

As the table demonstrates, the two categories of language impaired and learning disabled accounted for approximately three fourths of all diagnostic assignments. However, the relative frequencies of these two categories were in reverse order from what was found in District One. In spite of this, the numbers of language impaired students are much larger than the numbers of students labeled as mildly retarded.

**Current Placements**

The current instructional placements for the students were as follows: 82.5% were in the regular...
classroom; 49.6% were in the resource room; 5% were receiving designated instructional services; 24% were receiving language and speech services; 12.8% were in self-contained classes at the regular school; .63% were in self-contained classes at special education schools; 17.5% were in bilingual programs; and 17.5% were in ESL classes. In contrast to District One, greater numbers of students were in the regular classroom. In addition, while no students in District One were in bilingual or ESL programs, about 35% of the students in District Two were in one or the other program.

Since the two categories of learning disabled and language impaired accounted for approximately three fourths of the sample, the remainder of the analyses were based upon comparisons between these two groups.

Grades. The distribution of classroom grades for the learning disabled and language impaired students are provided in Table 4. As with District One, student grades are low, with the modal percentages falling in the "C" and "D" range.
TABLE 4.

Percentage Distribution of Classroom Grades for Language Impaired and Learning Disabled Students

<table>
<thead>
<tr>
<th>Grades</th>
<th>Reading</th>
<th>Math</th>
<th>Language</th>
<th>Science</th>
<th>Work habits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1.91</td>
<td>3.51</td>
<td>3.29</td>
<td>2.53</td>
<td>11.16</td>
</tr>
<tr>
<td>B</td>
<td>4.30</td>
<td>11.33</td>
<td>16.43</td>
<td>11.40</td>
<td>2.17</td>
</tr>
<tr>
<td>C</td>
<td>41.63</td>
<td>36.33</td>
<td>57.28</td>
<td>62.87</td>
<td>63.10</td>
</tr>
<tr>
<td>D</td>
<td>43.54</td>
<td>41.02</td>
<td>21.60</td>
<td>18.57</td>
<td>12.02</td>
</tr>
<tr>
<td>F</td>
<td>8.61</td>
<td>7.81</td>
<td>1.41</td>
<td>4.64</td>
<td>11.59</td>
</tr>
</tbody>
</table>

Referral Reason

Reasons for referral were examined for the learning disabled and language impaired students. The distribution of each group by reason is presented in Table 5.
<table>
<thead>
<tr>
<th>Referral Reason</th>
<th>Category</th>
<th>Language Impaired</th>
<th>Learning Disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>low academic achievement</td>
<td></td>
<td>23</td>
<td>47.9</td>
</tr>
<tr>
<td>reading difficulties</td>
<td></td>
<td>15.7</td>
<td>69.4</td>
</tr>
<tr>
<td>math difficulties</td>
<td></td>
<td>15.7</td>
<td>37.8</td>
</tr>
<tr>
<td>spelling difficulties</td>
<td></td>
<td>10</td>
<td>31.1</td>
</tr>
<tr>
<td>poor comprehension skills</td>
<td></td>
<td>16</td>
<td>19.2</td>
</tr>
<tr>
<td>poor oral skills</td>
<td></td>
<td>82</td>
<td>22.5</td>
</tr>
<tr>
<td>behavior problems</td>
<td></td>
<td>8</td>
<td>9.1</td>
</tr>
<tr>
<td>does not complete tasks</td>
<td></td>
<td>6</td>
<td>22.1</td>
</tr>
<tr>
<td>poor memory and retention</td>
<td></td>
<td>12</td>
<td>27.9</td>
</tr>
<tr>
<td>does not follow directions</td>
<td></td>
<td>4</td>
<td>6.6</td>
</tr>
</tbody>
</table>

Examination of Table 5 demonstrates interesting differences between the two groups. For example, by far the most frequent reason for referral for language impaired students is related to poor oral skills. On the other hand, learning disabled students are referred most frequently for low academic achievement, specifically in the areas of reading, math, and spelling.

IEP Team Participation In order to examine whether the pattern of participation found in District One was also characteristic of District Two, an intercorrelation matrix
relating the presence or absence of each specialist at the IEP to the presence or absence of each of the other specialists was prepared. The correlations are presented in Table 6.

TABLE 6.

Intercorrelations between Team Specialists at the IEP Meeting

<table>
<thead>
<tr>
<th></th>
<th>speech specialist</th>
<th>regular teacher</th>
<th>special ed. teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>psychologist</td>
<td>.005</td>
<td>.22</td>
<td>.12</td>
</tr>
<tr>
<td>speech specialist</td>
<td></td>
<td>-.03</td>
<td>.0008</td>
</tr>
<tr>
<td>regular teacher</td>
<td></td>
<td></td>
<td>-.10</td>
</tr>
<tr>
<td>special education teacher</td>
<td></td>
<td></td>
<td>--</td>
</tr>
</tbody>
</table>

As the correlations indicate, the pattern of IEP team member attendance in District Two was not as clear as the pattern found in District One. However, the participation of the speech specialist appears to be uncorrelated to the participation of the other members, and the strongest relationship is between the psychologist and the regular classroom teacher.

A Path Model of Diagnostic Category in District Two

In order to test the generalizability of the path model which was developed in District One, a path model using diagnostic category as the dependent variable was examined in District Two. As in District One, the two most frequent
categories were language impaired and learning disabled. For the purposes of this analysis, the exogenous and endogenous variables were defined as previously described in the path model for District One.

Findings for the Path Model

The predictor variables in the path model produced a multiple correlation of .62 and an R square of .40. The variables in the model, therefore, accounted for approximately 40% of the variance in placement decisions for the two diagnostic categories examined. The path coefficients that were calculated are presented in Figure 2.

There were four variables which had a direct effect on placement category after the effect of all the other variables were controlled. These include sex, language scale, age, and IQ test administration. Being male, coming from a family that speaks more English, being younger, and having an IQ test administered are all associated with being classified as learning disabled.

In addition to the direct effects, there were other variables in the model whose influence on placement decisions is mediated through other variables. Each will be briefly discussed moving from left to right in Figure 2.

Sex

In addition to its direct effect, sex had an indirect effect on classification through its effect on IEP team composition and IQ test administration. Males were more likely to have a psychometrically oriented IEP team, which in turn was associated with an IQ test being administered, and finally a classification as learning disabled.
Figure 2
Tentative Path Model
Dependent Variable = Placement Category

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Language Scale had no direct effect on classification, but did have an indirect effect through its relationship with Language Level. Those coming from homes where mainly English is spoken have a higher level of proficiency in English which produces higher grades and is also associated with a lowered probability of having a psychometrically oriented IEP team. In turn, both higher grades and a nonpsychometric team are related to a diagnosis of language impaired.

Birthplace did not have a direct effect on diagnostic category, but was indirectly associated through the IEP team. Being U.S. born was related to having a psychometrically oriented team, which was associated with having an IQ test administered and a diagnosis of learning disability.

Age In addition to its direct effect, age was indirectly related to diagnosis through its relationship with the IEP team and IQ test administration. Being older was associated with having a nonpsychometric team and with not having an IQ test administered. In turn, both of these were related to a diagnosis of language impairment.

Language level exerted an indirect influence on diagnostic category through its association with grades. More proficiency in English was related to higher grades. In turn, this was associated with a nonpsychometrically oriented team and not having an IQ test administered. These were both associated with a diagnosis of language impairment.

Grades Grades were indirectly to diagnostic category through both the IEP team and IQ test administration. Low grades were related to having a psychometrically oriented team and and
with having the IQ test administered, which were both related to a diagnosis of learning disability.

**IEP Team**
The psychometrically oriented IEP team was only indirectly related to diagnostic category through its relationship with the IQ test administration. When the team was psychometrically oriented, there was a greater chance of having an IQ test administered, which was in turn related to a diagnosis of learning disabled.

**Summary of Findings in District Two**
In general, the findings of District One were replicated in District Two. For example, the numbers of language impaired students were not as high as in District One, but nevertheless were large, representing about a quarter of all classifications assigned. Also, as in District One, the numbers of EMR students are rather small.

Although the IEP team clusters were not as clearcut as in District One, the speech specialist appears to play an important role in those cases involving a diagnosis of language impairment. In contrast, the psychologist and regular classroom teacher, and to a lesser extent, the psychologist and special educator, play a more extensive role where a diagnosis of learning disabilities is involved.

As was pointed out earlier, the variables used in the analysis did not include extensive individual assessment information. In spite of this limitation, however, the overall amount of variance accounted for by the model in District Two was nearly as high as that found in District One.
DISCUSSION

As was pointed out earlier, it appears that some large urban school districts are encountering rapidly increasing numbers of minority and language minority students. At the same time, there are a myriad of legal, political, and other pressures confronting school districts who are required to provide appropriate services to these students while avoiding stigmatizing labeled and biased educational practices. In the recent past, a great deal of attention was focused on the specific category of mild mental retardation, likely due to prevalent educational diagnostic practices. However, if the pattern of increased usage of learning disability and language impaired diagnoses are in fact found to extend beyond the districts studied here, this may represent one intentional or unintentional response to the educational challenges presented. As an example, Mehan, Hertweck, & Miehls (1983) have discussed the "socially negotiated" character of the IEP meeting and the resulting decisions. More importantly, they have pointed out the significance of "everyday constraints" as one of the prime factors driving the decision-making process.

One possibility related to the increased usage of the language impaired diagnosis merits further investigation. As will be recalled, all of the students in the study were Hispanic, and large numbers of these students were limited in their English skills. In addition, the main reason for referral for those students who eventually were assigned a diagnosis of language impairment was "poor oral skills". It is possible that the
first "link" in the referral chain, i.e., teachers may be confounding certain normal developmental features of second language acquisition (in this case English) for pathological linguistic and/or cognitive deficits. As an example, Krashen (1982) has written about an "orienting" period in the second language acquisition process characterized by silence and reliance on receptive skills. In the event that the referring teacher was unfamiliar with this normal developmental sequence, such behavior might be mistaken for linguistic problems. Additionally, surface features of language such as accent may be confounded with the inability to use language to successfully accomplish academic tasks.

Although the results of the present investigation are necessarily tentative, the overall patterns deserve further investigation, specifically, the use of the diagnosis of language impairment and the specific factors which trigger a referral for such a classification. Ultimately, however, the aim should not be to engage in a series of studies related to classificatory terminology and administrative procedures, since labels are inadequate indicators of optimal educational treatment. Rather, the course of events once assessment has been completed provide a more educationally promising agenda for research.
References


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