ABSTRACT

Title of Thesis:	ENGLISH LANGUAGE LEARNER SPECIAL EDUCATION REFERRAL AND PLACEMENT OUTCOMES IN INSTRUCTIONAL CONSULTATION TEAMS SCHOOLS
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The present study serves as an examination and documentation of referral and placement outcomes of English Language Learner (ELL) cases in Instructional Consultation (IC) Teams schools. Archival data from 838 cases (12% of which were ELL cases) within five mid-Atlantic public school districts implementing IC Teams were analyzed for outcomes using logistic regression. Results included statistically significant differences in ELL versus non-ELL student initial team referral (IC or other prereferral intervention team) and ultimate IEP Team referrals. Initial referral concerns also differed significantly between ELL and non-ELL students. IC Teams were found to be more effective than existing prereferral intervention teams in decreasing the special education referrals of ELL and non-ELL students. The results of the present study serve as a foundation for future research in the areas of at-risk ELL students and their referrals to prereferral intervention teams and special education.

ENGLISH LANGUAGE LEARNER SPECIAL EDUCATION
REFERRAL AND PLACEMENT OUTCOMES IN
INSTRUCTIONAL CONSULTATION TEAMS SCHOOLS

by

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CHAPTER 1

INTRODUCTION

Context

America's public schools are increasingly faced with the complex task of addressing the needs of culturally and linguistically diverse (CLD) students, including English Language Learners (ELLs) who, in 2000-01, comprised 9.6% of Pre-Kindergarten through twelfth grade nationwide public school enrollment (Kindler, 2002). Disproporionate representation of CLD students in special education has been a source of concern for decades, and research suggests that it continues to be a problem (Artiles, Rueda, Salazar & Higareda, 2002; CEC & NABSE, 2002; Garcia & Ortiz, 1988; Harry & Anderson, 1994; Heller, Holtzman, & Messick, 1982; Jitendra & Rohena-Diaz, 1996; Gersten, Brengelman & Jiménez, 1994; Olson, 1991; MacMillan & Reschly, 1998; Ortiz & Kushner, 1997; Ortiz & Maldonado-Colón, 1986; Ortiz & Yates, 1984; Valles, 1998). In the 1998-99 school year, for example, African American students were 2.9 times as likely as white students to be labeled mentally retarded (CEC & NABSE, 2002). In the urban school districts of California, ELLs in secondary grades were more than three times as likely to be identified as Mentally Retarded and 38% more likely to be identified as having Language and Speech Impairment compared to their English-proficient peers (Artiles, Rueda, Salazar & Higareda, 2002).

Inappropriate special education placements of minority and ELL students may occur because, in many cases, of bias and inaccurate assessment methods (e.g., CEC & NABSE, 2002; Harry, Klingner, Sturges & Moore, 2002; Solano-Flores & Trumbull, 2003). In addition, a mismatch between the instructional needs of CLD students and the

general education system may lead to poor student achievement, resulting in special education referrals that may not be appropriate (e.g., Ortiz & Yates, 1988).

Individualized Education Program (IEP) Teams, which are legally-mandated and have an intra-individual focus, are responsible for evaluating, identifying, and documenting students with disabilities, developing and re-evaluating individual education plans for students with disabilities, and determining appropriate placements for these students (COMAR 13A.05.01.07; IDEA, 1997, §300.343-344). ELL students who experience difficulty in the classroom despite receiving English as a second language (ESL) services are typically referred to IEP Teams for consideration of special education eligibility. Research suggests that CLD students are most often referred to IEP Teams for poor achievement, reading problems, and behavioral problems (Ochoa, Robles-Piña, Garcia, & Breunig, 1996). Once a student is referred, the probabilities are high that he or she will be evaluated and placed (Algozzine, Christenson, & Ysseldyke, 1982; Ysseldyke, Vanderwood, & Shriner, 1997).

Placement in special education is problematic because mounting evidence suggests that it may lead to stigma and non-beneficial outcomes for many students (e.g., Kavale & Forness, 1999). The effectiveness of special education has been increasingly questioned, with calls for reform (Algozzine, Christenson & Ysseldyke, 1982; Gersten, Brengelman & Jiménez, 1994; Kavale & Forness, 1999; Reynolds, Wang & Walberg, 1987; Ysseldyke, Vanderwood, & Shriner, 1997). Furthermore, when over-representation of CLD students occurs, inappropriately assigning a disability label to a non-disabled child can lead to negative academic, vocational, and socio-emotional outcomes for these students (CEC & NABSE, 2002; Harry & Anderson, 1994).

Instituting early intervention and effective prereferral could reduce the number of ELL students referred and inappropriately removed from their classrooms each year (Burnette, 1998; Ortiz & Garcia, 1988; Gersten, Brengelman & Jiménez, 1994; Kavanaugh, 1994; Wilen & van Maanen Sweeting, 1986). One study of referral patterns of Hispanic ELLs found that few interventions were tried with the students prior to special education referral, despite the fact that 63% of the students had been in the U.S. for less than three years (Rodriguez & Carrasquillo, 1997). In addition, review of the students' records suggested that no interventions had been tried with 43% of the students. The authors concluded that ELL over-representation in special education can be reduced by using a prereferral process. This way, school psychologists would be better able to distinguish difficulties arising from instruction, linguistics and cultural differences from actual learning disabilities.

A variety of prereferral intervention team (PIT) models have been developed and implemented in public schools, and have produced desired outcomes, including reduction in the number of special education referrals and increases in student performance and teacher satisfaction (e.g., Burns & Symington, 2002). PIT models typically follow a process including request for consultation, consultation, observation, conference, and, if needed, formal referral to special education. While PIT models have not been developed specifically for ethnic minorities, implementing IC Teams, Mainstream Assistance Teams, Project Achieve, and Teacher Assistance Teams in ethnically diverse schools has resulted in an overall decrease in special education referrals (Bay, Bryan & O'Connor, 1994; Fuchs, Fuchs & Bahr, 1990; Gravois & Rosenfield, 2002; Knoff & Batsche, 1995; Weiner 2002). In addition, implementing Teacher Assistance Teams in linguistically

diverse schools has resulted in significantly fewer special education referrals from TAT participants as compared to non-participants (Bay, Bryan & O'Connor, 1994).

The Student/Teacher Assistance Team (S/TAT), used as part of the AIM for the BESt process, is one of the only PIT models developed specifically for ELLs (Ortiz, Wilkinson, Robertson-Courtney & Bergman, 1991). The S/TAT works to determine the most effective intervention to meet the ELL student's needs and develops a plan to help the teacher resolve the problem. S/TATs were found to resolve problems without referral to special education in 73% of the cases considered over a two-year implementation period.

Instructional Consultation Teams (IC Teams) is another teacher support PIT model that engages in a formalized, data-based problem-solving process including contracting, problem identification and analysis, intervention design, intervention implementation and evaluation, and closure (Rosenfield, 1987; Rosenfield & Gravois, 1996). The focus of problem-solving in IC Teams is the match between the student, instruction, and task and environment. A request for assistance to an IC Team is viewed as an opportunity for the teacher to engage in a professional consultation relationship that can increase his or her competency to deliver appropriate instruction.

IC Teams have been shown to reduce inappropriate referrals to special education, including referrals of African American students (Gravois & Rosenfield, 2002; Levinsohn, 2000; Weiner, 2002). In addition, IC Teams incorporate principles that have been implicated as being effective for ELL students, including building on student prior knowledge, using collaborative problem-solving and curriculum-based assessment, providing supports to teachers, examining the curriculum, and using appropriate

instructional strategies (Burnette, 1998; Echevarria & Graves 1998; Gersten, Brengelman & Jiménez, 1994; Ortiz, 1997; Ortiz & Kushner 1997; Rodriguez & Carrasquillo, 1997; Warger and Burnette, 2000).

Statement of the Problem

Decreased referrals of minorities to special education have been documented in IC Teams schools (Levinsohn, 2000; Weiner, 2002). While the reduction in minority referrals may include a reduction in ELL student referrals, no study has documented the effectiveness of the IC Teams model with ELL students. Evaluation of outcomes of ELL cases can assess how well the model addresses the needs of ELLs. The purpose of this study, therefore, is to examine the outcomes for ELL cases in IC Teams schools. Specifically, this study will investigate referral and special education placement rates and concerns of ELL students, taking into account grade and gender. Study results will have implications for the use of teacher support prereferral teams to address the needs of ELL students. Results can be used to guide the development of future service delivery for ELL students.

Research Questions

> 1a. What was the frequency of ELL students compared to non-ELL students *initially* referred to IC Teams, IEP Teams, or Other Teams?
>
> 1b. Of the initial referrals to IC Teams and Other Teams, how many cases were then *ultimately* referred to IEP Teams?
>
> 2. At what grade levels were ELL students being referred to IC Teams, IEP Teams, or Other Teams?
>
> 3. Were there gender differences between ELL students being referred to IC

Teams, IEP Teams, or Other Teams compared to non-ELL students?

4. What were the referral concerns for ELL students compared to non-ELL students referred to IC Teams? To IEP Teams? To Other Teams?

5a. Of the ELL students compared to non-ELL students *ultimately* referred to IEP Teams, what percentage was then evaluated for special education eligibility?

5b. What percentage was found eligible for special education?

5c. For those students who were placed in special education, were placement categories different for ELL than for non-ELL students?

Definition of Terms

English language learner (ELL). A language minority person who has difficulty understanding, speaking, reading, or writing the English language at a level appropriate to his or her age and grade (Bilingual Education Act, 1994).

Instructional Consultation Teams (IC Teams). A teacher support prereferral team model that uses a formalized data-based, decision making process to address teacher concerns within the general education classroom. In response to voluntary requests for assistance, IC Team members provide consultation support to teachers by ensuring that students are well-matched to their instructional environments and tasks. IC Team members include administrators, general and special educations, school psychologists, school counselors, health care providers, and social workers. (Rosenfield & Gravois, 1996).

Individualized Education Program Teams (IEP Teams). A legally mandated team responsible for evaluating, identifying, and documenting students with disabilities, developing and re-evaluating individual education plans for students with disabilities, and

determining appropriate placements for these students. IEP Team members include parents, regular and special educators, and a representative of the public agency who is qualified to provide (or supervise the provision of) specially designed instruction and is knowledgeable about the general curriculum and available resources. In addition, the IEP Team includes an individual who can interpret the instructional implications of evaluation results, and may include the student and other appropriate individuals (COMAR 13A.05.01.07; IDEA, 1997, §300.343-344).

Other Teams. The pre-existing problem solving teams that were in place at each school in addition to IC Teams. *Other teams* include Educational Management Teams, Regular Support Teams, Pupil Services Teams, and Student Support Team . These teams are defined in detail in Chapter 3.

Grade levels. The grades the students were in at the time of referral to IEP, IC, and/or Other Teams. All students were in Kindergarten through fifth grade.

Referral concerns. The initial, general reason(s) given for student referral to either the IEP Team or the IC Team. Concerns include academic, behavioral, academic/behavioral combination, speech/language, academic/speech/language combination, academic/behavioral/speech/language combination, math, reading, written language, and other.

Placement categories. The specific IEP disability category given to students who are found eligible to receive special education. Under IDEA 1997, categories include mental retardation, hearing impairment, deafness, speech/language impairment, visual impairment, emotional disturbance, orthopedic impairment, other health impairment, specific learning disability, multiple disabilities, deaf/blindness, traumatic brain injury,

autism, and developmental delay (IDEA, 1997, §300.7). In addition, some students were identified as eligible for special education based on Section 504, which provides services to accommodate a child's disability as defined by the Rehabilitation Act of 1973 (COMAR 10.09.52.01; Rehabilitation Act § 504, 1973).

High-incidence disabilities. Disability categories which have been cited as "judgmental" disabilities, and in which CLD students are primarily disproportionately represented (e.g., Artiles, Harry, Reschly, & Chinn, 2002; Ortiz & Maldonado-Colón, 1986). For the purposes of this study, high-incidence disabilities will be defined as mental retardation, speech/language impairment, emotional disturbance, and specific learning disability.

Low-incidence disabilities. Disability categories which are thought to be non-judgmental and therefore occur less frequently in the population. For the purposes of this study, low-incidence disabilities will be defined as hearing impairment, deafness, visual impairment, orthopedic impairment, other health impairment, multiple disabilities, deaf/blindness, traumatic brain injury, developmental delay, and autism.

CHAPTER 2

REVIEW OF LITERATURE

Overview

The purpose of this chapter is to review the literature relevant to this study of English Language Learners (ELLs) in IC Teams schools. This chapter will begin with a description of the ELL population in public education, including an overview of the ESL programs used to serve ELL students and effective school- and class-wide practices for ELLs.

The focus will then turn to the disproportionality of ELLs in special education within the larger context of minority overrepresentation. The reasons for and implications of ELL overrepresentation will be examined, ELL referral concerns will be explored, and prereferral interventions will be described.

Prereferral intervention teams (PITs) and their role in general education will be reviewed, with a focus on the accepted best practices and effects on overrepresentation of ELLs and minorities. A PIT model developed specifically for ELLs (AIM for the BESt) will be examined, and the IC Teams model will be reviewed in detail.

Prevalence and Definition of English Language Learners

America is becoming increasingly culturally and linguistically diverse. According to the 2000 U.S. Census, 12.5% of the population is Hispanic/Latino and 12.3% is Black/African American. Population projections predict that Hispanics will comprise nearly 20% of the United Stated population by 2025 (The U.S. Census Bureau). Approximately 25-42% of the population in Arizona, California, New Mexico, and Texas is already Hispanic. Furthermore, 17.9% of the U.S. population (five years old and older)

speaks a language other than English at home, and approximately 11% of the population is foreign born.

These population effects are being felt by our public education system. In 2000-01 alone, English language learners (ELLs) comprised 9.6% of total Pre-Kindergarten through twelfth grade nationwide public school enrollment, including an ELL population of 11.7% in Pre-Kindergarten through sixth grade (Kindler, 2002). While ELLs represent more than 460 language groups nationwide, 79.2% of the ELL student population is Spanish speaking. On a local level, a 2002 Maryland State Department of Education survey of Maryland public schools indicated that 27,423 of the students in Pre-Kindergarten through twelfth grade were classified as being Limited English Proficient (LEP), representing nearly a two-fold increase in this category compared to the 1995 student population (F. Edgerton, personal communication, October 31, 2002).

English Language Learners (ELL) and Limited English Proficient (LEP) students are a particularly compelling population in the schools. The term *limited-English-proficient* refers to a language-minority person who has difficulty understanding, speaking, reading, or writing the English language at a level appropriate to his or her age and grade and is, thereby, academically disadvantaged in programs conducted exclusively in English (Bilingual Education Act, 1994). The ELL and LEP categories are often used interchangeably and will be treated as such for the purposes of this review.

ELL students are identified using a variety of methods, including parental information (for example, home language), teacher observations, teacher interview, student records and grades, and tests (Kindler, 2002). Language proficiency, achievement, and criterion referenced tests are the most commonly used for this purpose.

Second language acquisition, a complex process resulting from a variety of factors, can occur simultaneously (exposure to two languages from birth) or sequentially (exposure to a second language after three years of age) (August & Hakuta, 1997; Ortiz & Kushner, 1997). Most ELLs are sequential bilinguals; those that are exposed to English in an additive environment, where favorable attitudes towards the student's native language and culture exist, have an easier time learning English. Furthermore, research suggests that additive bilinguals exhibit cognitive advantages such as higher levels of concept formation, analytical reasoning, cognitive flexibility, selective attention, and metalinguistic skills (Berk, 2002; Ortiz & Kushner, 1997).

Sequential bilinguals typically progress through four stages as they learn English (Ortiz & Kushner, 1997). *Preproduction* characterizes the learner's initial contact with English, followed by *early speech production*, which occurs when the learner has developed a passive vocabulary of approximately 500 words. *Speech emergence* corresponds to the third stage, during which sentences become longer, more complex, and incorporate a wider range of vocabulary. Finally, the learner enters *intermediate* and then *advanced fluency,* and develops excellent comprehension as a result of continued exposure to English.

Factors that can influence second language acquisition include age, proficiency of first language, affective and personality factors, motivation, cognitive factors, and opportunity for learning (August & Hakuta, 1997; Ortiz & Kushner, 1997). For example, while younger children tend to exhibit superior ultimate attainment of second language proficiency, research suggests that older children may acquire a second language faster due to enhanced metalinguistic and extralinguistic knowledge (such as understanding

events and relationships). For a comprehensive review of research relating to

bilingualism and second-language learning, as well as a listing of current research needs,

please refer to August and Hakuta (1997).

Attention has increasingly been focused on effectively meeting the needs of ELL

students. At one Howard County (Maryland) elementary school, teachers, school

psychologists and administrators devoted an entire year to researching and evaluating

their service delivery to ELL students (Heisey & Robinette, 2002). In this school, 14% of

the student population was classified as LEP, with Asians and Hispanics comprising the

largest ethnic groups.

Effective Schools and Classrooms for ELLs

In their comprehensive review of research on school and classroom effectiveness,

August & Hakuta (1997) present studies that identify school- or classroom-level factors,

including instruction, associated with positive outcomes for ELL students. These factors

include a supportive school-wide climate where value is placed on the linguistic and

cultural background of ELLs, ELLs are integrally involved in the overall school

operation, teachers have high expectations for ELL academic achievement, and teachers

are assisted in acquiring the skills and knowledge needed to be successful with ELLs. In

addition, the principal must assume responsibility for focusing on ELL achievement,

including planning, coordinating, and administering programs, providing ongoing

direction and monitoring of curricular and instructional improvement, recruiting and

keeping dedicated staff, involving the entire staff in improvement efforts, and providing a

good physical and social environment.

Effective classrooms for ELLs must be customized learning environments that reflect school and community factors and goals, and identify conditions under which specific approaches are best suited. The curriculum must be flexible in its ability to respond to students' individual needs in terms of skills, knowledge, degree of difficulty, and instructional approaches. In addition, the needs of newcomers and immigrants are anticipated and planned for, to ensure their smooth integration into the classroom.

Effective ELL instruction involves a balanced curriculum that incorporates both basic and higher-order skills, explicit skills instruction to help students acquire basic skills, opportunities for student-directed activities, use of instructional strategies that enhance understanding, use of native language and culture, and opportunities for practice. Suggested practice opportunities include building redundancy into activities, having ELLs interact with fluent peers, using extended dialogue to enhance English acquisition and learning, and using instructional conversations, or discussion-based lessons that focus on an idea or concept that has both educational value, meaning, and relevance for students.

In addition, a good English language development program should focus on developing proficiency and fluency in English by addressing the formal, grammatical aspects of English use and presenting new academic content (Gersten & Baker, 2000). Finally, August and Hakuta (1997) recommend smooth transitions between levels of language development classes, coordination and articulation between special second-language programs and other school programs, systematic student assessment, ongoing staff-wide development and training, and home and parent involvement.

In practice, a variety of program models have been developed for use with ELLs, including two-way bilingual immersion, maintenance bilingual education, transitional bilingual, structured English immersion, submersion ("sink or swim"), and English as a second language (ESL) (Kushner & Ortiz, 2000). Programs differ in terms of classroom composition (native English speakers vs. ELLs), language representation (same language group vs. variety of languages), language of instruction, and program goal (e.g., maintenance of the first language, English proficiency only, proficiency in both native and second language).

There are numerous cognitive benefits to be gained from retaining proficiency in the first language, such as higher levels of concept formation, analytical reasoning, cognitive flexibility, metalinguistic skills, and selective attention (Berk, 2002; Ortiz & Kushner, 1997). In addition, native language proficiency can enhance ELL ethnic identity, and is often viewed as an asset in the increasingly global workplace. However, ESL classrooms, where the focus is exclusively on learning English, are the most commonly found programs in schools.

ELL Students and ESL Services

ELL students are usually referred to English as a Second Language (ESL) services based on their ability to perform ordinary classroom work. ESL classrooms are typically pull-out programs where students receive support to develop conversational English skills (Kushner & Ortiz, 2000). Students in these classrooms generally represent a variety of language groups, and instruction is in English. Common ESL curriculum models include developmental, content-based, cognitive/learning strategies,

functional/life skills, and career-based/vocational; models are summarized in Table 1

(Cloud, 1990).

Table 1

ESL Curriculum Models

ESL Model	Curriculum
Developmental	Teacher facilitates natural growth process of student as s/he evolves through the stage hierarchy of language development (e.g., Natural Approach).
Content-based	Based on modified content and language demands of the mainstream program. Emphasis on functional reading and writing skills (e.g., Sheltered English).
Cognitive/Learning Strategies	Emphasis on learning strategies, including cognitive, metacognitive and social strategies that assist the student in second language learning (e.g., Cognitive Academic Language Learning Approach).
Functional/Life Skills	Focus on facilitating development of essential practical language skills for community interaction, including content and purpose of language communication (e.g., Community Language Learning).
Career-based/Vocational	Focus on essential job-related practical skills, including career-related personal-social skills (e.g., English for Special Purposes).

Note. Adapted from Cloud (1990).

The goal of ESL is to return students to the mainstream classroom on a full-time basis as soon as they are reclassified as English proficient. ESL exit requirements vary, but generally include tests measuring English proficiency. Research suggests that students are released from ESL services when they master conversational English, or *basic interpersonal communication skills* (BICS), a process which takes approximately two years (Cummins, 1999; Heisey & Robinette, 2002; Ortiz & Kushner, 1997). ELLs usually master BICS with ease because conversation focuses on interesting topics, falls within students' experiential backgrounds, and is context-embedded (Ortiz & Kushner, 1997). However, mastering *cognitive academic language proficiency* (CALP), the higher level of abstract language used in academic learning tasks such as problem solving, evaluating, inferring, and acquiring new concepts, can take between 5 and 10 years. This suggests that if ELLs are transitioned into a mainstream (non-ESL) class before mastering CALP, they are unlikely to receive needed instructional support in the promotion of second language academic skills (Cummins, 1999). Furthermore, mainstreamed ELLs who have not mastered CALP are forced to learn language and content at the same time, greatly hindering their academic achievement.

According to Cummins (1999), instructional programs designed to promote CALP should be cognitively challenging, requiring students to use higher-order thinking (as opposed to memorization). In addition, academic content in subjects such as math, social studies, science and art should be integrated with language instruction (as in content-based ESL programs). Critical language awareness should be encouraged by having students compare and contrast the conventions, phonics and grammar of their languages and by investigating their own as well as their community's language uses and

practices. It is interesting to note that Cummins (1999) describes L1 (first language)

CALP and L2 (second language) CALP as being strongly related to each other; he terms

their interdependency the "common underlying proficiency" (CUP). This suggests that

promotion of L1 literacy in the early grades does not adversely impact the ability of ELLs

to learn English.

CLD Students and Special Education

ELL students who experience difficulty in the classroom despite ESL services are

typically referred to special education via IEP Teams. However, special education

prevalence data and research suggests disproportionate representation of ELLs and

minorities in special education (Artiles, Rueda, Salazar & Higareda, 2002; CEC &

NABSE, 2002; Garcia & Ortiz, 1988; Harry & Anderson, 1994; Heller, Holtzman, &

Messick, 1982; Jitendra & Rohena-Diaz, 1996; Gersten, Brengelman & Jiménez, 1994;

Olson, 1991; Ortiz & Kushner, 1997; Ortiz & Maldonado-Colón, 1986; Ortiz & Yates,

1984; Valles, 1998). Over-representation occurs when members of a particular ethnic or

linguistic group are repeatedly referred and inappropriately placed in special education,

causing that group's membership in special education to be larger than the percentage of

that group in the general educational system (CEC & NABSE, 2002).

The issue of over-representation of minorities in special education is not new,

dating back to a 1968 article by Dunn that characterized the educable mentally retarded

population as being 60 to 80 percent African-American, American Indian, Mexican,

Puerto Rican, and from non-middle class environments (as cited by MacMillan &

Reschly, 1998). More recent figures suggest that African American youth, who account

for 14.8% of the population, account for 20.2% of the special education population, and

are 2.9 times as likely as white students to be labeled mentally retarded (CEC & NABSE, 2002). African Americans may be over-represented as a result of inaccurate identification methods, lack of access to effective instruction, and failure of the general education system to educate children from diverse backgrounds (CEC & NABSE, 2002; Harry & Anderson, 1994). Treating non-disabled children as if they were disabled can have serious consequences, including low expectations for achievement, social-emotional problems, and lower vocational and higher education outcomes.

Perhaps as a result of the ever-increasing linguistic diversity among today's public school students, disproportionality advocacy has begun to include ELL students, whose over-representation prevalence data varies by state. In Texas, research has revealed a 300% over-representation of Hispanics in the "learning disabled" category; however, it is unclear how many Hispanics are ELLs (Ortiz & Yates, 1983). In California, ELLs from urban school districts were 27 % more likely than English-proficient students to be placed in special education in elementary grades and twice as likely as English-proficient students to be placed in secondary grades (Artiles, Rueda, Salazar & Higareda, 2002). Furthermore, ELLs in secondary grades were more than three times as likely to be identified as Mentally Retarded and 38 % more likely to be identified as having Language and Speech Impairment compared to their English-proficient peers.

Some researchers also point to possible under-representation of ELLs in special education, arguing that students who have legitimate disabilities are being deprived of appropriate services (Harry, Klingner, Sturges & Moore, 2002; Olson, 1991; Ortiz & Kushner, 1997). Regardless of the data source and how disproportionality is measured, it

is clear that there are significant concerns regarding ELLs and special education referral rates. In 1998, the U.S. Office of Special Education Programs (OSEP) and the U.S. Office for Civil Rights (OCR) documented three concerns about disproportionate representation of minorities: students may be unserved or receive services that do not meet their needs; students may be misclassified or inappropriately labeled; and placement in special education classes may be a form of discrimination (Burnette, 1998).

Reasons for ELL Over-representation

Numerous explanations have been proposed to account for ELL over-representation. For example, over-representation may be a result of inaccurate assessment methods. According to Solano-Flores and Trumbull (2003), "existing approaches to testing ELLs do not ensure equitable and valid outcomes because current research and practice assessment paradigms overlook the complex nature of language, including its interrelationship with culture" (p. 3). Problems with the identification process include testing that occurs primarily in English, inappropriate norms, biased content, product versus process orientation, failure to consider native language proficiency and second language acquisition (including BICS and CALP), misinterpretation of language problems as disabilities, and failure to consider educational background and contextual and cultural variables (e.g., Barrera, 1995; Cummins, 1986; Hoover & Collier, 1985; Jitendra & Rohena-Diaz, 1996; E. Lopez, personal communication, July, 2003; Ortiz & Yates, 1984; Rodriguez & Carrasquillo, 1997; Solano-Flores & Trumbull, 2003).

In addition to poor validity of the referral and assessment processes, Heller, Holtzman and Messick (1982) suggest that disproportionate placement occurs as a result

of the quality of the instruction provided in the mainstream. Ortiz and Yates (1988) reach a similar conclusion, stating that "the mismatch between instructional needs of the language minority child and the general education system at this time destines many language minority students to a general lack of achievement, not necessarily indicative of a need or requirement for special education services" (p. 60).

Silva, Hook, and Sheppard (2005) used classroom observations to examine the instructional environments of two at-risk second grade ELL students throughout a four month period. Several deviations from best practice were found, including lack of coordination and communication among teachers and specialists, loss of academic engaged time (e.g., eight transitions in two hours), disregard for working memory limits and student instructional levels, lack of data-based decision making and goal setting, and the non-merging of English language development and academic content. Additional questionable practices, such as placing an emergent ELL student in the same reading group as two nonverbal autistic children, were also observed. Curriculum Based Assessments further found that the students had made limited reading progress within a three month period; one student had been unable to advance to the next reading benchmark level, and the other student had learned to identify only three new lower case and six upper case letters. Ineffective instructional environments such as those observed by Silva, Hook, and Sheppard (2005) could contribute to increased special education referrals of ELL students.

School personnel bias may also account for ELL over-representation in special education. Ortiz and Maldonado-Colon (1986) suggest that children are often referred to IEP Teams and special education as a result of behaviors related to linguistic proficiency

that do not fit the expectation of educators. Placement committees then erroneously interpret linguistic, cultural, economic and other characteristics as deviant. For example, withdrawn, defensive, disorganized and aggressive behaviors resulting from cultural variability or occurring as a response to acquiring English can result in inappropriate referrals (Hoover & Collier, 1985). Furthermore, qualitative research has shown that school personnel's impressions of a child's family can directly influence placement decisions (Harry, Klingner, Sturges & Moore, 2002).

In a study designed to examine the accuracy of teacher assessments in screening for ELL reading disabilities, researchers found that teacher rating scales and nominations had low sensitivity in identifying ELL students at-risk for reading disabilities (Limbos & Geva, 2001). In addition, teachers inappropriately relied on student's oral language skills when screening ELL students for reading problems. Children who were not classified as at-risk by objective measures (e.g., standardized reading tests) tended to have lower oral language proficiency teacher ratings, placing them at-risk when they were truly not. Once a student is referred to special education, the probabilities are high that he or she will be evaluated and placed (Algozzine, Christenson, & Ysseldyke, 1982; Ysseldyke, Vanderwood, & Shriner, 1997).

Implications of Over-representation

Over-representation of ELL students in special education has important implications for their long-term outcomes. Mounting evidence suggests that referral to special education may lead to stigma and non-beneficial outcomes for many students, including decreased self-image (Kavale & Forness, 1999; Dunn, 1968, as cited in Valles, 1998). Wilkinson and Ortiz (1986) found that after three years in special education

placement, Hispanic students who were classified as learning disabled showed significantly lower verbal and full scale Wechsler Intelligence Scale for Children - Revised IQ scores and unchanged Woodcock-Johnson achievement scores compared to their initial entrance scores. Although the researchers were unable to verify whether these children were appropriately placed in special education, this finding suggests that special education may not produce desired results for Hispanic and ELL children.

In addition, the effectiveness of special education has been increasingly questioned, with calls for reform (Algozzine, Christenson & Ysseldyke, 1982; Gersten, Brengelman & Jiménez, 1994; Kavale & Forness, 1999; Reynolds, Wang & Walberg, 1987; Ysseldyke, Vanderwood, & Shriner, 1997). A research review conducted by Reynolds, Wang and Walberg (1987) found several problems with special education, including lack of consistency and validity in defining the categories used in research and practice. The authors propose the use of prereferral interventions to limit special education assessments, the use of curriculum-based assessment procedures to ensure appropriate educational programming, and reallocation of special education resources to facilitate the provision of effective services in regular classrooms.

Meta-analyses reviewed by Kavale and Forness (1999) found that six prominent interventions used in special education had effect sizes of less than .50, representing less advantage than one-half year's worth of schooling. Furthermore, the authors state their concern that special education teachers vary widely in terms of implementing components of effective instruction. While research-based instructional practice could improve special education, the lack of specificity for proper implementation hinders effective practice.

ELL Referral Concerns

Studies have investigated the reasons why ELL students are typically referred to special education. A survey of National Association of School Psychologists (NASP) members from states with high Hispanic populations found that culturally and linguistically diverse (CLD) students were most often referred for poor achievement, reading problems, and behavioral problems (Ochoa, Robles-Piña, Garcia, & Breunig, 1996). Results indicated that between 69.8% and 91.2% of the respondents' schools used a prereferral committee when addressing a CLD student referral. However, only 52% of respondents indicated that these prereferral committees included a bilingual education representative. The authors call for future research on school and systemic factors, including effectiveness of prereferral interventions with ELL students.

These findings are similar to an earlier study of referred Kindergarten through twelfth grade Hispanic students in four large urban school districts ($n = 1,319$), which found that the majority of the referrals were for low academic achievement and reading problems (Rueda, 1985). In addition, most referrals were in the early elementary grades, were male, and had a Spanish language background, yet only a fifth of the sample had been in ESL or bilingual classes prior to referral. More than half of the sample (63%) was eventually classified as learning disabled.

A study of the referral process of 46 Hispanic LEP students in a New York City public school also found that the most common reason for referral was overall academic deficits; 73% of the students were classified as Learning Disabled and 15% were labeled as Speech Impaired (Rodriguez & Carrasquillo, 1997). However, results showed that few interventions were tried with the students prior to special education referral, despite the

fact that 63% of the students had been in the U.S. for less than three years. Review of the

students' records suggested that no interventions had been tried with 43% of the students.

In addition, out of the 26 students who did receive some type of intervention, only three

had records noting the length of time of the services provided. The authors concluded

that to reduce LEP over-representation in special education, all LEP students should go

through a prereferral process. This way, bilingual and cultural factors impacting a

student's performance can be ruled out. In addition, the authors recommend using

curriculum-based scales and checklists to provide information about the LEP student's

abilities.

Reading Interventions for At-risk ELLs

Several reading interventions designed specifically for at-risk ELL students have

been proposed, though they are not technically classified as prereferral interventions.

Studies with Control Groups. Gunn, Biglan, Smolkowski, and Ary (2000)

investigated the effects of two years of supplemental reading instruction in phonological

awareness and decoding skills in 256 Kindergarten through second grade students, 19 of

whom were ELLs. Students were screened using the Dynamic Indicators of Basic Early

Literacy Skills (DIBELS), matched in pairs according to grade, reading ability, and

ethnicity (Hispanic versus non-Hispanic), and randomly assigned to either ability-level

intervention or control groups. The intervention group worked with trained instructional

assistants in small groups for approximately half an hour daily. The intervention

included supplemental instruction in phonological awareness, sound-letter

correspondence, decoding, and fluency; implementation fidelity was documented using

direct observation checklists.

Although Hispanic ELL students were provided instruction in the control or intervention conditions together with non-ELL students, the researchers ran separate analyses on the Hispanic ELL and Hispanic non-ELL subgroup data. They found that Hispanic non-ELL and Hispanic ELL students benefited equally from the intervention, and intervention ELL students had significantly higher oral reading fluency rates compared to control ELL students at the end of the second year of instruction. While the Letter-Word Identification, Word Attack, Reading Vocabulary, and Passage Comprehension scores did not differ significantly for ELLs between intervention and control groups, the intervention group had higher scores on all four subtests. The researchers concluded that despite the small number of ELL students ($n = 19$), supplemental instruction was beneficial for students despite the fact that they spoke little or no English prior to intervention. However, it is important to note that students were matched based on ethnicity, and not linguistic factors.

Longitudinal tracking of the ELL subgroup one year post-intervention found that the intervention group significantly outperformed the control group in tests of Word Attack, Oral Reading Fluency, and Passage Comprehension; no significant differences were found in tests of Letter-Word Identification or Vocabulary (Gunn, Smolkowski, Biglan, & Black, 2002). However, these results should be interpreted with caution given the small sample size.

Leafstedt, Richards, and Gerber (2004) used a quasi-experimental design to examine the effects of 10 weeks of intensive phonological-awareness instruction on the word reading skills of 16 Kindergarten ELLs. Students were placed in low, middle, and high performance ability-level groups for general education classroom-based intervention

according to pretest word-reading scores and teacher recommendations. The control group came from two year old archival data on 46 students from the same school that had participated in a longitudinal study; despite the temporal differences, the researchers reported that both intervention and control groups exhibited similar risk factors, including low income, low parent education levels, limited English, and limited home literacy resources. The intervention was delivered in small groups by a special education teacher twice a week for 15 minutes; activities were modified based on individual student performance, group performance, and weekly phonological-fluency probes. Intervention curriculum was based on a developmental model of phonological-awareness, where students start by working on rime and onset skills and then progress to segmentation and blending skills. Direct instruction was provided, materials were matched to instructional levels, objectives were set, scaffolding was used to ensure individually differentiated instruction, and praise for correct responses was immediately and frequently given.

Weekly phonological-fluency probes using the nonsense-word fluency and segmentation fluency subtests of the DIBELS indicated that all students receiving intervention were performing above the deficit and at-risk level on both measures. The middle and high intervention groups performed significantly better than the middle and high control groups on pre and post-intervention phoneme-segmentation and word reading tasks. There were no significant differences between intervention groups and control groups on pre- and post-intervention rime and onset identification or pseudoword tasks. The researchers concluded that when provided with specific, explicit phonological-awareness intervention, at-risk ELLs perform better on phonological-awareness and word-reading tasks compared to at-risk ELLs receiving normal classroom

instruction. However, this finding is questionable given the lack of random assignment.

In addition, two year old archival data was used as a control group, resulting in

unmatched groups in terms of size, exposure to English, differences in preschool

experience, progress monitoring, and any other differences that may have existed as a

result of the two year gap. Finally, the study should be replicated with a larger sample to

ensure generalizability.

The effectiveness of combining validated instructional strategies for native

English readers and research-based ELL strategies has also been explored for at-risk

ELLs. Denton, Anthony, Parker, and Hasbrouck (2004) investigated the effects of 10

weeks of tutoring in either decoding or oral reading fluency on second through fifth grade

native Spanish speakers. Ninety-three ELL students were selected for intervention based

on teacher recommendation. Students were matched on pretest scores and randomly

assigned to the tutored or control condition. Students in the tutored condition were

instructed outside of the classroom three times per week for 40 minutes in one of two

conditions: systematic phonics instruction with practice in decodable text, or repeated

reading with contextualized vocabulary and comprehension instruction. ELL students in

the phonics tutoring condition significantly outperformed non-tutored students in word

identification (though not word attack or reading comprehension) tasks. ELL students in

the repeated reading tutoring condition did not make significant gains on any of the study

measures compared to the control condition. The authors concluded that even a small

amount of systematic English phonics instruction can have significant effects on ELL

decoding ability. The small sample size of the phonics tutoring group ($n = 19$) undercuts

the generalizability of these findings. In addition, the researchers' random assignment

design was somewhat disrupted by school administrators who insisted on placing certain

students in particular conditions. Finally, the study used undergraduate students as tutors,

which may have affected the quality and implementation of the instruction.

Given the very small sample sizes present in all four studies, statements about

ELL reading intervention effectiveness must be made with caution. However, the above

studies suggest that interventions that target phonological awareness may help ELLs

increase their oral reading fluency, phoneme-segmentation, word reading, and word

identification tasks in the elementary grades.

Studies without Control Groups. A couple of pre-experimental studies have also

contributed to the knowledge base on effective reading interventions for at-risk ELLs.

Neal and Kelly (1999) investigated the outcomes of Reading Recovery instruction on

3,992 ELL first graders who received a minimum of 60 daily individual 30-minute

lessons. Lessons were taught by specially trained teachers and specific attention is paid

to phonological awareness and the alphabetic principal using both reading and writing

activities. Pre- and post-intervention assessments of Hearing and Recording Sounds in

Words, Writing Vocabulary, and Text Reading Level show that the ELL students made

progress. In addition, 72% of ELL students were able to successfully discontinue

Reading Recovery, indicating that they had developed independent reading strategies and

reached the average reading level of children in their classrooms. The authors also drew

favorable comparisons between the ELL Reading Recovery students and all Reading

Recovery students, as well as random samples of Californian first graders. However,

these groups were not matched on any variables, including ELL status, the central

variable of concern in an ELL effectiveness study. In addition, no mention is given of

how students were selected for participation in Reading Recovery. Therefore, one can not conclude that placement in Reading Recovery led to the skill gains observed. In addition, the study was published in a journal that appears dedicated to promoting the Reading Recovery program, an observation that should be considered when interpreting results.

Linan-Thompson, Vaughn, Hickman-Davis, and Kouzekanani (2003) also employed a pre-experimental design to investigate the outcomes of 13 weeks of supplemental reading instruction on 26 ELL students with reading difficulties. Students were selected for participation based on teacher nominations and scores indicating risk on the Texas Primary Reading Inventory. They were then instructed in fluency, phonological awareness, instructional-level reading, word study, and writing by trained teachers daily for 30 minutes. Individual progress was monitored weekly on all skills, including letter naming and connected text reading, and used to provide individually differentiated instruction. Students made significant gains from pre- to post-test on word attack, passage comprehension, phoneme segmentation fluency, and oral reading fluency. The largest gains were seen in passage comprehension and oral reading fluency; four month follow-up assessment found significant gains in oral reading fluency and significant losses in phoneme segmentation fluency. The authors caution that in the absence of oral fluency norms for ELLs, it is difficulty to interpret the gains.

Finally, Hus (2001) investigated the outcomes of an early reading program on the reading skills of 68 low socioeconomic status ELL Kindergarten students. Students received nine weeks of a daily phonics program, and showed significant improvement in tests of phonological skills. These results were contrasted with standardized reading test

results of 50 first graders in the same school who had not received explicit reading instruction the prior year in Kindergarten; these students exhibited below-average performance compared to their same-age peers.

The results presented in this section support the importance of phonemic instruction for at-risk ELL students. In addition, the interventions examined included a number of reading and writing activities that may hold promise for ELL reading instruction. However, the absence of control groups is extremely problematic and bars the studies from joining the meager empirical literature on effective ELL reading interventions.

Additional Programs. Other interventions for at-risk ELLs have focused on younger children. For example, a pre-school emergent literacy intervention with Spanish-speaking children had positive results, with preschoolers beginning kindergarten at or above grade level in understanding concepts about print (Yaden, Tam & Madrigal, 2000). In addition to these specific, short-term interventions, a number of programs for at-risk ELL students have been implemented in schools, such as Classwide Peer Tutoring Learning Management System and Success for All (Greenwood, 2001; Slavin & Madden, 1995). These programs are not reviewed here, since they fall beyond the scope of the current study.

Conclusions about ELL Reading Interventions

At this time, the extremely limited research base on English reading interventions for ELLs precludes any definitive statements about effectiveness. Only three experimental designs were found in the literature, and all had very small sample sizes (Denton, Anthony, Parker, & Hasbrouck, 2004; Gunn, Biglan, Smolkowski, & Ary,

2000; Gunn, Smolkowski, Biglan, & Black, 2002). Based on these groundbreaking studies, instruction in phonological awareness and decoding appears to be connected with improved oral fluency and word identification outcomes for ELL students who are having difficulty with reading. These outcomes appear to be attainable for ELLs who know very little English, and for ELLs who receive only a small amount of intervention. Both interventions described were performed during school hours with trained instructional assistants or trained undergraduates, suggesting that they might be accessible to school personnel with a wide variety of educational backgrounds.

Four other studies employing quasi- or pre-experimental designs can be used to provide information and generate future ideas for research (Hus, 2001; Leafstedt, Richards, & Gerber 2004; Linan-Thompson, Vaughn, Hickman-Davis, & Kouzekanani, 2003; Neal & Kelly, 1999). These studies also found an association between phonics instruction and improved academic outcomes, including improved performance on phoneme-segmentation, word reading, and oral fluency tasks. However, the Linan-Thompson, Vaughn, Hickman-Davis, and Kouzekanani (2003) and Neal and Kelly (1999) results occurred following in-depth intervention in a number of reading areas, so it is difficult to attribute student progress to the phonemic-awareness instruction alone. In addition, in the absence of a control group it is not possible to make any conclusions about the effectiveness of the interventions.

There is an obvious need for additional research in the area of reading interventions for at-risk ELL students. It is clear from the existing research that performing applied research within schools can be a challenge, given small sample sizes, limited control group options, and school policies that dictate the placement of certain

students within intervention groups. Nevertheless, future studies should try to employ experimental design, including random assignment, matched control groups, and large, diverse samples; at least one research group already has such a study underway (S. Linan-Thompson, personal communication, November 8, 2004). In addition, future research should carefully define the term "English Language Learner," and "at-risk," since placement within those categories can vary according to the criteria used.

Addressing Disproportionality with Prereferral Interventions

Implementing effective prereferral interventions has been suggested as a better way to meet the needs of CLD students in general education classrooms (e.g., Burnette, 1998; Dodd, Nelson, & Spint, 1995; Echevarria & Graves, 1998; Ortiz, 1997; Ortiz & Garcia, 1988; Ortiz & Kushner, 1997; Ortiz & Yates, 1988; Gersten, Brengelman & Jiménez, 1994; Kavanaugh, 1994; Wilen & van Maanen Sweeting, 1986). Prereferral interventions could help teachers respond appropriately to ELL student difficulties in the context of the regular classroom (e.g., Garcia & Ortiz, 1988). In addition, prereferral interventions could be designed to impact entire classrooms such that fewer students would experience difficulty in the first place. Prereferral interventions are often more cost-effective than special education programs (Ortiz, 1992), an important consideration in urban school districts that may have large populations of ELL students and limited access to funds. Furthermore, prereferral interventions could help school psychologists distinguish difficulties arising from instruction, linguistics and cultural differences from actual learning disabilities. Special education would become the last resort and the exception rather than the rule for meeting the needs of ELL students.

A context- and best practice-based approach to addressing the over-representation of African American students is encouraged by the Council for Exceptional Children and the National Alliance of Black School Educators (CEC & NABSE, 2002). This approach includes collecting annual data regarding the numbers of students maintained by prereferral intervention teams, monitoring school and system-wide data to identify repeat referrals, encouraging parents to discuss culturally relevant concerns and suggestions for instructional supports, and ensuring consistency of interventions when students transfer or transition to other schools or teachers.

In addition, CEC and NABSE (2002) recommend the provision of on-going professional development on topics such as how to differentiate instruction, provide multi-level instruction, individualize instruction, and make instructional accommodations. Teachers need to be supported in using a culturally relevant curriculum that addresses diverse students; professional development activities that enable participants to confront and overcome biases and attitudes that may hinder students' learning may be helpful in this regard. Finally, community supports should be made available, including mental health services, the faith community, community health services, parent support groups, and preschool programs.

A similar context-based prereferral approach to examining the reasons for ELL achievement difficulty has been suggested as a way to achieve appropriate ELL special education referrals (Echevarria & Graves, 1998; Ortiz & Kushner, 1997). This approach can include documentation of the following factors: appropriateness of the curriculum and assigned tasks, presence or absence of the difficulties in the native language, progress of the student relative to prior teaching, qualification of teacher to effectively teach

language minority students, presence or absence of supportive yet challenging classroom environment, and quality and amount of instruction, including sequencing, continuity, and inclusion of prerequisite skills. Teachers are encouraged to use a clinical teaching process in which alternatives such as varied instructional strategies (e.g., peer teaching, modeling of strategies, and cooperative learning) and teaching of necessary prerequisite skills are used to resolve academic and behavioral problems. Teachers should also encourage goal setting, measure academic progress consistently, make directions clear, and clarify their expectations by drafting written agreements with students.

The BUENO Modules for Bilingual Special Education (Baca, et al., 1991, as outlined in Robles-Piña, 1996, p. 33-34) further suggest that the following prereferral interventions be used with ELL students:

a. Establish the most proficient language in both BICS and CALP.

b. Estimate the level of acculturation and degree of acculturative stress the student is undergoing.

c. Identify cultural, linguistic, and cognitive style differences.

d. Meet with the parents to discuss the student's problems and eliciting their suggestions to help the student.

e. Implement interventions to address suspected learning and behavior problems.

f. Provide English as a second language (ESL) instruction and native language instruction.

g. Allow a reasonable waiting and observation period to allow the student sufficient time to adapt to the school environment before formal referral for assessment.

h. Provide vision and hearing exams.

i. Teach the student basic school survival skills, such as how to take tests and how to behave in school.

j. Use criterion-referenced tests to pinpoint specific strengths and weaknesses in both languages.

k. Observe the student interacting with other students, teachers, and parents in the school, the home, and the community in order to identify differences in behavior, language use, and confidence.

Unfortunately, research documenting the effectiveness of these suggested ELL prereferral interventions is scarce. Although effective bilingual education and ELL instruction have been researched (e.g., Gersten & Baker, 2000) and may lessen the number of ELLs inappropriately referred to special education, their impact on ELL referral rates as part of a prereferral process has not been a research focus.

Prereferral Intervention Teams

A variety of PIT models have been developed and implemented in public schools, including Teacher Assistance Teams (Bay, Bryan, & O'Connor, 1994; Chalfant & Pysh, 1989; Short & Talley, 1996), Prereferral Intervention Teams (Graden, Casey, & Bonstrom, 1985; Ingalls & Hammond, 1996), Instructional Assessment Teams (Whitten & Dieker, 1995), Peer Intervention Teams (Saver & Downes, 1991), Mainstream Assistance Teams (Fuchs & Fuchs, 1989; Fuchs, Fuchs, & Bahr, 1990; Fuchs, Fuchs, Harris, & Roberts, 1996), Building Educational Support Teams (Henning-Stout, Lucas, & McCary, 1993), Instructional Support Teams (Kovaleski, Gickling, Morrow & Swank, 1999; Rock & Zigmond, 2001), Project Achieve (Knoff & Batsche, 1995), and Instructional Consultation Teams (Gravois & Rosenfield, 2002). While team

composition and problem-solving focus varies, the goal of most PITs is to provide

support and assistance to teachers who are having difficulty with particular students in

the classroom (Levinsohn, 2000). The PIT models generally follow steps including

request for consultation, consultation, observation, conference, and, if needed, formal

referral to special education. While none of the above-mentioned PIT models were

developed specifically for minorities, implementing IC Teams, Mainstream Assistance

Teams, Project Achieve, and Teacher Assistance Teams in ethnically diverse schools has

resulted in an overall decrease in special education referrals (Bay, Bryan & O'Connor,

1994; Fuchs, Fuchs & Bahr, 1990; Gravois & Rosenfield, 2002; Knoff & Batsche, 1995;

Weiner 2002). In addition, a study documenting the implementation of Teacher

Assistance Teams in two schools in a Mexican-American, bilingual community found

that TAT participants referred significantly fewer children than did non-participants;

however, outcome data was not broken down by ethnicity or language (Bay, Bryan &

O'Connor, 1994).

A number of best practices in operating, structuring, and ensuring effective group

process in PIT teams have been identified (Iverson, 2002; Kovaleski, 2002; Rosenfield &

Gravois, 1996). A foundation for implementing PITs should begin with a school and/or

district-wide policy, including administrative support, funding, and principal advocacy

for the establishment of school-based PITs. All involved parties should be clear on the

goals of PITs, especially their emphasis on support for the student in general education as

opposed to special education eligibility. It is important for all team members to be

trained in communication skills, problem solving, team building and maintenance,

curriculum-based assessment, behavioral assessment, and differentiated instructional and

behavioral strategies; on-site technical assistance is suggested for effective PIT implementation.

To ensure effective team structure and group process, PITs should meet on a regular basis and at a specific time, with an adequate length of time allotted for meetings. Members should be assigned to roles that capitalize on their interpersonal and professional strengths, such as leader, time keeper, recorder, case manager. Team leaders should have group process skills and be able to train other team members. Effective group communication should be encouraged, and explicit oral and written role expectations should be provided. When a referral is received by the PIT, a consultant/case manager should be assigned.

Furthermore, PITs should use research-based, high probability, and teacher - acceptable instructional strategies, and should support the initiation of interventions in the classroom to ensure treatment integrity. Parents should be given clear information and feedback as to their role and the purpose of the interventions for their child. To ensure accountability, PITs must be evaluated using on-going, data-based methods for ensuring student academic outcomes and school-wide indicators of success, including referral patterns and teacher and parent satisfaction.

In addition, Flugum and Reschly (1994) have defined quality indicators of prereferral interventions. These include a behavioral definition of the target behavior, direct measurement of the student's behavior in the natural setting prior to intervention implementation (baseline data), step-by step, systematic intervention plan (e.g., What? When? How often?), implementation of intervention as planned (treatment integrity), graphing of intervention results, and, finally, direct comparison of the student's post-

intervention performance with baseline data (assessment of change). The IC Teams model incorporates all of these quality indicators (Rosenfield, 1987; Rosenfield & Gravois, 1996).

Research has shown that PITs can have a positive impact in education in general. In a 1991 review of literature, Nelson, Smith, Taylor, Dodd & Reavis concluded that Teacher Assistance Teams, Prereferral Intervention Teams, and Mainstream Assistance Teams can reduce the number of students referred to special education and produce desired student performance. However, the authors cautioned that the majority of the studies reviewed did not provide the experimental design necessary to make strong causal claims.

Sindelar, Griffin, Smith & Watanabe (1992) echoed these findings in their review of Teacher Assistance Teams, Instructional Assistance Teams, Prereferral Intervention Teams, and Mainstream Assistance Teams, citing reduced referral rates, high consumer satisfaction, and student behavior change through improved practice. A more recent meta-analysis of 10 empirical articles documenting PIT outcomes (e.g., Mainstream Assistance Teams, Instructional Consultation Teams, Prereferral Intervention Teams, Instructional Support Teams, Teacher Assistance Teams, Intervention Assistance Teams, and Child Study Teams) found that the PIT approach had a strong effect on the desired systemic, student and teacher outcomes (Burns & Symington, 2002). The authors conclude that PITs can reduce referrals to special education while enabling school psychologists to spend more time on services other than assessment.

In response to the cultural and linguistic variables that students bring to PITs, Hoover and Collier (1991) suggest the use of a Teacher Assistance Child Intervention

Team (TACIT). A TACIT is essentially an expanded Child Study Team that provides

assistance to teachers who work with CLD students who have learning and behavioral

concerns. The team has a flexible membership that changes in response to student needs,

but includes a number of school and community members who are knowledgeable about

educational techniques and strategies, the acculturation process and cross-cultural

instructional strategies, the culture and language background of the student, and

bilingual/ESL resources and instructional strategies. Upon reviewing a case, the team

makes suggestions and provides guidance for modifying the student's learning

environment. In addition, the TACIT works to sort out problems that may occur in

response to cultural, linguistic, and acculturation variables as opposed to underlying

disabilities.

In practice, schools sometimes modify PITs to include bilingual school personnel.

For example, Harris (1995) describes the introduction of Teacher Assistance Teams

comprised of bilingual and special educators into a predominantly Hispanic school

district. While ELL student outcomes were not measured, Harris notes that despite

difficulty assuming consulting roles and maintaining the teams, team members were

ultimately successful in collaborating and assisting teachers with at-risk students.

The Instructional Support Team (IST) model in Pennsylvania has also made

modifications in efforts to respond to CLD students. In 1993-94, ten linguistically and

culturally diverse school districts in their second year of IST implementation sent teams

to attend training sessions on cultural and linguistic considerations of assessment for

instruction, second language acquisition, multicultural assessment, and collaboration with

the mainstream (Rodriguez-Diaz, Cochran & Kovaleski, 1997). The teams shared the

knowledge they had acquired with other IST teams in their districts, and a training

manual was developed on cultural awareness and acculturation, second language

acquisition and linguistic diversity, instructional support for CLD students, and working

with CLD parents. This manual was used to increase IST team member awareness about

CLD students. The manual suggests that the student's language performance should only

be compared to that of other students who have had similar cultural and linguistic

experiences, and that the following items be considered when a CLD student is referred

to the IST team:

1. Language dominance and English proficiency;

2. Cultural information;

3. Acculturation level;

4. Home environment;

5. Migration or immigration information;

6. School history, including disruptions;

7. Source of difficulty;

8. Interaction with students, parents, and teachers; and

9. Language/work samples.

Prereferral Intervention Teams and ELLs

There is limited research available documenting the outcomes of ELL students in

schools that employ PIT models. Robles-Piña (1996) surveyed 85 respondents from a

linguistically diverse southeastern Texas school district that used multidisciplinary

prereferral teams (operating under the Teacher Assistance Team model). Responses to a

scenario indicated that there were no significant differences in how team members would

handle ELL versus non-ELL special education referrals, suggesting that the prereferral teams may have been effective in decreasing disproportionate referrals of ELL students to special education. However, the study did not investigate actual ELL cases in these schools.

Ortiz and Garcia (1988) advocate for a multi-faceted prereferral process that examines the effectiveness of the curriculum and instruction for minority language learners and takes into account both parental and teacher validation of the student's perceived difficulty. In addition, this process is designed to raise a series of questions specific to multicultural populations. For example, parental perceptions are seen as important because they can lead to valuable insight into the student's abilities in a non-academic, native language environment (Kavanaugh, 1994). Furthermore, involving the parents helps to demystify the American school system and demonstrate interest in and respect for the child's native culture. In addition, Ortiz and Garcia (1988) suggest that the teacher's qualifications and level of experience be examined to ensure that his or her observations are unbiased and based on knowledge about second language acquisition. Ortiz and Garcia's (1988) model can be summarized by the following sequence:

Step 1: Is the student experiencing academic difficulty?

Step 2: Is the curriculum known to be effective for language minority students? If the answer is no, then the curriculum should be adapted, supplemented and developed.

Step 3: Has the student's problem been validated? If not, then the following factors must be considered: inter- and intra-setting comparisons, inter-individual

comparisons, inter-teacher perceptions, parental perceptions, and student work samples.

Step 4: Is there evidence of systematic efforts to identify the source of difficulty and take corrective action? If not, then the following factors must be evaluated: teacher (e.g., qualifications, experience, teaching style), instruction (e.g., language, standards, effectiveness), student (e.g., language proficiency, cultural characteristics, self-concept) , and exposure to curriculum (e.g., continuity of exposure, basic skills, mastery).

Step 5: Do student difficulties persist?

Step 6: Have other programming alternatives been tried? If not, then program and placement alternatives such as tutoring should be considered.

Step 7: Do difficulties continue in spite of alternatives? If the answer is yes, the student is referred to special education.

Kavanaugh (1994) argues that all prereferral decisions made using Ortiz and Garcia's (1988) model should be team-based in order to control for individual opinions and bias. Furthermore, the team should ensure that a systematic effort has been made to identify the source of the student's difficulties, and should investigate the instructional or curricular changes that have been put in place to try to help the student.

The Assessment and Intervention Model for the Bilingual Exceptional Student (AIM for the BESt), which incorporates several of Ortiz and Garcia's (1988) ideas, includes the only documented PIT model developed and implemented specifically for ELLs. A comprehensive service delivery system, AIM for the BESt was piloted in a central Texas school district with successful outcomes (Ortiz, Wilkinson, Robertson-

Courtney & Bergman, 1991). AIM for the BESt includes implementation of effective

instructional practices by regular and special educators, establishment of school-based

problem-solving teams, and training appraisal personnel in informal assessment

procedures including curriculum-based assessment. Steps in the AIM for the BESt model

can be summarized as follows (Ortiz, Wilkinson, Robertson-Courtney & Kushner, 1991):

> Step 1: The regular classroom teacher is trained in instructional strategies known
>
> to be effective for language minority students (e.g., Shared Literature and Graves
>
> Writing Workshop).
>
> Step 2: When a student experiences difficulty, the regular classroom teacher, who
>
> has been trained in diagnostic/prescriptive or clinical teaching approaches,
>
> attempts to resolve the difficulty and validates the problem.
>
> Step 3: If the problem is not resolved, the teacher refers the student to a
>
> Student/Teacher Assistance Team (S/TAT) consisting of regular and special
>
> educators and support personnel. The S/TAT works to determine the most
>
> effective intervention and usually involves the development of a plan to help the
>
> teacher resolve the problem. However, it may also involve referrals to other
>
> programs.
>
> Step 4: If the problem is not resolved by the S/TAT prereferral process, a special
>
> education referral is initiated. A summary of the S/TAT's efforts accompanies
>
> the referral.
>
> Step 5: Assessment personnel incorporate informal and curriculum-based
>
> assessments in the comprehensive individual assessment.

Step 6: If the child is placed, special educators use instructional strategies known to be effective for language minority students.

Student outcomes were documented in four AIM for the BESt elementary schools across two years. During the first year of implementation, 78.5% of the approximately 3,552 Hispanic students served by the participating school district were enrolled in programs for the learning disabled or speech handicapped. However, of the 100 requests for assistance which occurred over the two-year implementation period in the AIM for the BESt schools, 73% were resolved by the regular classroom teacher and/or by using alternatives such as support group participation and counseling. In addition, the use of S/TATs offered a procedure for effective decision-making and helped identify school-wide problem areas and training needs.

Three categories of Hispanic students in grades one through four were also included for outcome data collection ($n = 242$): LEP learning disabled (LD), non-LEP LD, and non-handicapped LEP. Administration of the Peabody Picture Vocabulary Test-Revisited showed that LEP LD intervention students' English vocabulary scores increased across the two project years, suggesting that the instructional practices used by their teachers were effective.

In light of these results, AIM for the BESt holds promise for improving the educational outcomes of ELL students. However, the model was implemented in only four schools and no additional research studies were found in the literature. In addition, AIM for the BESt has not been used anywhere else since 1991 (M. Kushner, personal communication, September, 2003).

Instructional Consultation Teams

One PIT model that appears promising for effective delivery of services to ELL students is Instructional Consultation Teams (IC Teams). Based on the best practices in PITs, IC Teams is a teacher support prereferral team model that focuses on team collaboration, communication skills, systematic problem-solving, curriculum-based assessment (CBA), functional behavior assessment, empirically based instructional practices, and data-based decision making (Allen & Graden, 2002; Rosenfield, 1987; Rosenfield, 2002; Rosenfield & Gravois, 1996). The goal of IC Teams is to enhance, improve and increase student and staff performance. Key assumptions of the model include treating all students as learners, focusing problem-solving on the instructional match and setting, creating a strong problem-solving and learning community in the school as the foundation for professional and student success, and achieving change as a process and not an event.

Unlike traditional assessment models, the focus of problem-solving in IC Teams is on the student as well as his or her instruction, tasks, and environment. Effective learning occurs when these factors are matched. Therefore, the IC Teams model examines the student's prior knowledge, level of skill development, and learning rate in conjunction with the teacher's expectations for student, use of instructional time, classroom management procedures, instructional delivery, and assessment, as well as the task demands presented to the student.

Teachers seek out IC Team members, who are trained as instructional consultants, on a voluntary basis and work collaboratively with them through a formalized problem solving process. IC Team members include administrators, general and special educations, school psychologists, school counselors, health care providers, and social

workers. When the IC Team receives a request for assistance, a team member is assigned

as case manager, and becomes responsible for guiding the teacher through the following

stages:

1. Entry and Contracting: rules of the consultation relationship are discussed,

   including the teacher's expectations, time commitment, focus of problem-

   solving, need for data collection, and non-evaluative nature of the process.

   The IC Team model is explained, and the case manager ensures that the

   teacher is committed to this form of problem-solving.

2. Problem Identification & Analysis: accounts for 90% of the effort in the IC

   Teams process. The following information is recorded on a Student

   Documentation Form (SDF): (a) initial description of the concerns (academic

   and/or behavioral); (b) priority of the concerns; (c) assessment of student's

   instructional level (whether or not the student has the prerequisite skills to

   function in the activity presented); (d) baseline data collection of the

   prioritized concern, graphically represented; (e) an observable and measurable

   statement of current performance of the prioritized concern based on the

   baseline data; and (f) short-, interim- and long-term goals for achieving the

   expected performance.

3. Intervention Design: the dyad develops strategies for a plan that is feasible,

   research- and data-based, and acceptable to all concerned. A detailed

   description of the strategy to be implemented is documented on the SDF,

   including who will be responsible for each aspect of the intervention. In

addition, the dyad decides how and when the effectiveness of the intervention will be evaluated.

4. Intervention implementation and Evaluation: data is collected and charted on the SDF. The dyad makes changes to the intervention as needed, based on the data and teacher's use of the intervention. The student's performance is compared with the baseline data to monitor progress.

5. Closure: plans for maintaining the achieved progress are discussed. A case summary form is completed, and the case is formally concluded.

IC Teams are gradually implemented in school districts with support from the University of Maryland-based Lab for IC Teams. Lab for IC Teams services include comprehensive and empirically-based training, ongoing technical assistance, and evaluation of critical components of the IC Team model, including changes in professional functioning, implementation, and outcomes. At the school-level, an IC Teams facilitator, who has received advanced training in the IC Teams process, serves as a resource to the IC Team.

IC Teams have enjoyed widespread acceptance in public schools. According to the Lab for IC Teams web site:

"IC Teams have been implemented successfully in more than 150 schools across 7 states over the past eighteen years Beginning with the "Early Intervention Project" in Connecticut in the mid-1980's, the IC concept was introduced to address the over-representation of minority students in special education programs in urban areas. An early version of the teaming structure was subsequently implemented in New York and Pennsylvania schools with success in increasing student academic and behavioral achievement, reducing the overidentification of students in special education and improving the quality of teaching within the general education classroom. Since 1990, IC Teams have been refined and implemented in school districts throughout the states

of Maryland, Virginia, and Delaware. Currently there are nearly 100 schools, representing

approximately 50,000 students implementing IC Teams in the mid-Atlantic region with initiation

of IC Teams in North Carolina, Michigan and Texas." ("What other schools have been involved

with IC Teams?" http://www.icteams.umd.edu/schoolpartnerships.html, January, 2004).

IC Teams Outcomes

An effectiveness study of IC Teams as compared to Student Support Teams

(school-based, non-formalized problem solving teams focusing on the student) in a

suburban school district in the mid-Atlantic region found that students referred to IC

Teams were much less likely to be screened for and/or placed into special education

(Levinsohn, 2000). However, while the reduction in referrals may include a reduction in

ELL student referrals, IC Teams was not developed specifically for ELL students.

Even more strikingly, teachers receiving support through IC Teams were

substantially less likely to refer minority students to special education compared to

teachers receiving support through Student Support Teams (SST) (Levinsohn, 2000).

Levinsohn found that none of the African American students receiving IC Teams services

were subsequently referred to or placed in special education, whereas 80% of the African

American students receiving SST services were referred to special education, with half of

those students going on to be placed in special education. Additional referral data from

one Maryland public school system showed that in schools using the IC Teams model,

the percentage of total referrals to IEP Teams for African American, Asian and Hispanic

students was lower that the average representation for each ethnic group in the school

(Howard County Public School System, 2001).

IC Teams incorporates principles that have been suggested as effective for

addressing the needs of ELL students in the general classroom. For example, Echevarria

and Graves (1998) and Ortiz and Kushner (1997) cite the importance of examining the appropriateness of the curriculum and assigned tasks as well as the quality and amount of instruction, teaching prerequisite skills, goal setting, and consistently measuring academic progress. In addition, Gersten, Brengelman and Jiménez (1994) cite the need for collaboration among educators focusing on curriculum design and instructional strategies. Ortiz (1997) calls for "a problem-solving phase in which teachers first adapt instruction and/or the classroom environment to improve student performance and request assistance from others…" (p. 323). Warger and Burnette (2000) note the importance of building on student strengths and providing supports to instructional staff prior to special education referral. Rodriguez and Carrasquillo (1997) identify the importance of conducting curriculum-based assessments. Finally, Burnette (1998) calls for training and collaborative problem-solving to extend the teacher's repertoire of instructional strategies and involve multiple perspectives. As a support to instructional staff, the IC Teams model already utilizes collaborative problem-solving to examine instructional match, curriculum, tasks, quality and amount of instruction, and student's prior knowledge, and incorporates goal-setting and measurement of academic progress.

Summary

        In conclusion, the IC Teams model, which incorporates all of the quality indicators of prereferral interventions described by Flugum and Reschly (1994), has been shown to decrease African American, Asian, and Hispanic student referrals to special education (Howard County Public School System, 2001; Levinsohn, 2000; Rosenfield & Gravois, 1996). In addition, IC Teams incorporates principles that may better address the needs of ELL students in the general classroom, such as using a collaborative problem-

solving process to support teachers in examining the appropriateness of the curriculum and instruction, and collecting curriculum-based assessment data to help identify the prior knowledge of the student (Burnette, 1998; Echevarria & Graves 1998; Gersten, Brengelman & Jiménez, 1994; Ortiz, 1997; Ortiz & Kushner 1997; Rodriguez & Carrasquillo, 1997; Warger and Burnette, 2000).

Perhaps as a result of these findings, IC Teams has been cited as having the potential to benefit ELL students (Heisey & Robinette, 2002). Noting teacher frustration at how to program for ESOL students, transiency issues, and increased special education referrals for ESOL students, one Maryland elementary school with a 14% LEP population decided to engage in a year of self-study, planning and intervention (Heisey & Robinette, 2002). The school concluded that "the benefit of the IC model is that it provides us with a structure for responding to the needs of these [LEP] children in a thoughtful, systematic way" (Heisey & Robinette, 2002, p. 2). However, the potentially beneficial effects of IC Teams on the referral rates of ELL students have never been documented.

CHAPTER 3

METHODS

Introduction

This chapter will begin by describing the participants who were involved in the present study, including their ethnic designations and linguistic status (i.e., ELL or non-ELL). Data collection procedures will then be described in detail, including information about the kinds of data collected and the comparison teams used. Finally, the research questions will be presented, along with the data analysis methods used to answer these questions.

Description of Participants

During the 2001-2002 school year, 27 schools from five public school districts in a mid-Atlantic state participated in an Instructional Consultation Teams (IC Teams) project. Schools were in their first or second year of IC Teams implementation and ranged in location from urban to rural school districts. The student population generally encompassed a wide range of socioeconomic statuses and ethnic backgrounds; however, accurate information on the race and ethnicity of the students was unavailable. Of the non-ELL category ($n = 741$), 247 (33%) of the students were girls and 494 (67%) were boys. Of the ELL category ($n = 97$), 26 (27%) of the students were girls and 71 (73%) were boys.

Participants in the present study included all students from Kindergarten through fifth grade for whom Case Summary Form documentation exists indicating ESL status (Yes or No), and documentation of initial referral to IC Teams and/or an Individualized Educational Program (IEP) Team ($N = 838$). Specifically, information came from 838

cases that were initially referred to IC, IEP, or Other Teams, 88% ($n = 741$) of which were non-ELL cases and 12% ($n = 97$) which were ELL cases (i.e., the student was receiving ESL services at time of referral). Of these, 99% ($n = 828$) included information about ultimate referrals to IEP Teams. A path of possible case outcomes is presented in Figure 1.

Data Collection Procedures

The data used in this research was collected as part of the program evaluation data collection, as specified in the contract with the districts, by the Laboratory for Instructional Consultation Teams. Specifically, this research used Case Summary Forms, part of an archival dataset that was collected during and immediately following the 2001-2002 academic year. As part of the IC Teams process, the IC Teams facilitator from each school completed the Case Summary Forms based on school records, such as referral and student documentation forms (SDF). Teachers and case managers using IC Teams had provided informed consent for the data collected regarding their case to be used for research. The Case Summary Forms used in the current study included information from routine school records, and were collected as part of the routine data collection required in this project.

The Case Summary Forms contain the following categories for each student: District, School, Grade, Team (prereferral or IEP Team), Referral Concern, Race, Sex, Existing Disability (Yes or No), ESL Services (whether the student was receiving ESL services at time of referral), IEP Referral Status (whether the student had been referred), IEP Evaluation Status (whether the student had been evaluated), Eligibility, and
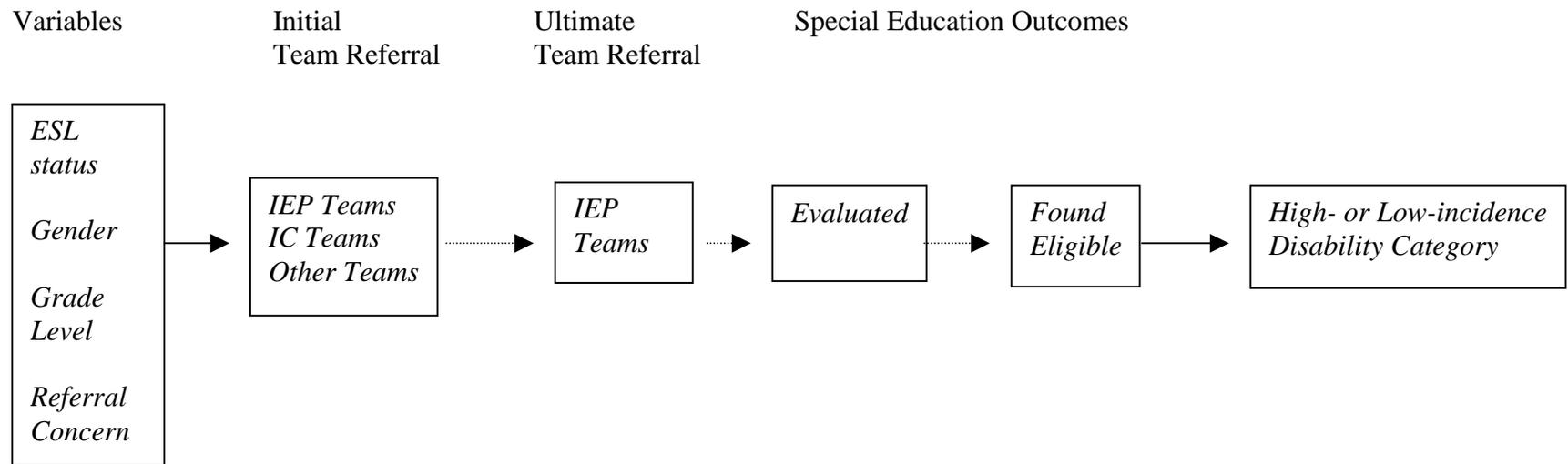
Figure 1. Path of Possible Case Outcomes

Disability Category (IDEA special education placement category or Section 504 eligibility).

In addition to the Case Summary Forms, background information on ESL service delivery were collected for each school in the dataset to place the ELL cases in context. The following information was collected by phone interviews with administrators from each district ($N = 5$), using the survey form found in Appendix A: number of students receiving ESL services in the total school population during the 2001-02 school year, location of reading instruction, information about ESL service delivery process (i.e., developmental, content-based, cognitive/learning strategies, functional/life skills, and/or career-based/vocational ESL), and number of students receiving pull-out ESL, including number of times per week and minutes per day. The administrators' titles were as follows: *ESOL Curriculum Specialist*, *ESOL Program Director*, *Supervisor of English, Foreign Languages, and ESOL*, and *ESOL Coordinator* (2).

Comparison Teams

As described in previous chapters, the IC Team is a teacher support prereferral team model that uses a formalized data-based, decision making process to address teacher concerns within the general education classroom. In response to voluntary requests for assistance, IC Team members provide consultation support to teachers by ensuring that students are well-matched to their instructional environments and tasks.

In contrast, the IEP Team is a legally mandated team responsible for evaluating, identifying, and documenting students with disabilities, developing and re-evaluating individual education plans for students with disabilities, and determining appropriate placements for these students.

The third comparison group, Other Teams, includes cases that were referred to the pre-existing problem solving teams that were in place at each school. These teams, which vary by school, include Educational Management Teams, Regular Support Teams, Pupil Services Teams, and Student Support Team.

Educational Management Teams (EMT), originally derived from the Maryland State Department of Education LD project, were meant to give teachers the opportunity to brain-storm about challenging behaviors and learning issues (V. Dolan, personal communication, September 9, 2003). They evolved into a prereferral documentation of problems and interventions, and have now become a prereferral "checklist prior to going through the IEP test and place process" (V. Dolan, personal communication, September 9, 2003). IC Teams were in the process of replacing EMTs when the data for this study was collected.

The next level after EMT is the *Regular Support Team* (RST) (V. Dolan, personal communication, September 9, 2003). At this level, the decision to go through the IEP process is made.

The *Pupil Services Team* (PST) serves as the screening team prior to referral to the IEP Team (A. Gillespie, personal communication, September 11, 2003). The PST meets monthly, and is comprised of an administrator, school counselor, school psychologist, school nurse, pupil personnel worker, teachers, and parents.

The *Student Support Team* (SST or TSST, depending on the school) is a prereferral intervention team comprised of general and special educators, the principal, a health services provider, a Safe and Drug Free Schools Representative, an appropriate related service provider, and an external agency representative whenever possible

(Baltimore City Public School System, 2002). SSTs adhere to manualized problem-solving stages that include gathering and reviewing preliminary data, identifying and defining the need in observable and measurable terms, generating a goal statement, brainstorming interventions, implementing interventions, monitoring and evaluating the success of the interventions. IC Teams were in the process of replacing SSTs when the data for this study was collected.

Of these teams, the SST's problem-solving strategies most resemble the formalized problem-solving process used by IC Teams. However, the focus of problem-solving is the student, as opposed to the interaction between instruction, student, and task (Levinsohn, 2000).

Data Analysis Procedures

The Case Summary Form was analyzed to document ESL referrals and compare them to non-ESL referrals as per the stated research questions. Referral concerns were coded by two researchers to ensure reliability using the following 10 categories: academic, behavioral, academic/behavioral combination, speech/language, academic/speech/language combination, academic/behavioral/speech/language combination, math, reading, written language, and other. These categories were further collapsed into the following four categories: Academic Only (consisting of Academic Only, Math Only, Reading Only, Written Language Only); Behavior Only; Combination/Other (consisting of Combination Academic/Behavioral, Combination Academic/Behavioral/Speech/Language, Combination Academic/Speech/Language, Other); and Speech/Language Only.

Descriptive statistics, including percentages, were calculated. Logistic regression analyses were run to determine whether categorical variables (e.g., ELL status), are significant in terms of predicting the outcomes of interest (e.g., initial and ultimate referrals, referral concerns). The following research questions were addressed:

1a. What was the frequency of ELL students compared to non-ELL students *initially* referred to IC Teams, IEP Teams, or Other Teams?

1b. Of the initial referrals to IC Teams and Other Teams, how many cases were then *ultimately* referred to IEP Teams?

2. At what grade levels were ELL students being referred to IC Teams, IEP Teams, or Other Teams?

3. Were there gender differences between ELL students being referred to IC Teams, IEP Teams, or Other Teams compared to non-ELL students?

4. What were the referral concerns for ELL students compared to non-ELL students referred to IC Teams? To IEP Teams? To Other Teams?

5a. Of the ELL students compared to non-ELL students *ultimately*referred to IEP Teams, what percentage was then evaluated for special education eligibility?

5b. What percentage was found eligible for special education?

5c. For those students who were placed in special education, were placement categories different for ELL than for non-ELL students?

CHAPTER 4

RESULTS

Question 1a: What was the frequency of ELL students compared to non-ELL students

initially referred to IC Teams, IEP Teams, or Other Teams?

The percentage of ELL and Non-ELL students initially referred to IC, IEP, and

Other Teams are summarized in Table 2.

Table 2

Percentage of Initial Referrals According to Team and ELL Status (row variable)

	IC Teams	IEP Teams	Other Teams
Non-ELL ($n = 741$)	398 (54%)	166 (22%)	177 (24%)
ELL ($n = 97$)	43 (44%)	40 (41%)	14 (14%)

The results of a regression of the log odds of being initially referred to IEP, IC, or

Other Teams on ELL status, gender, grade level, and referral concern are shown in Table

3. Controlling for the effects of the other variables, ELL students had three times the

odds of being initially referred to IEP Teams compared to non-ELL students.

Furthermore, ELL students were less likely to be initially referred to IC Teams (0.6 times

the odds) or Other Teams (0.5 times the odds) compared to non-ELL students.

Question 1b: Of the initial referrals to IC Teams and Other Teams, how many cases were

then ultimately referred to IEP Teams?

Descriptive statistics for Non-ELL and ELL ultimate IEP Team referrals are

summarized in Table 4. In contrast to students initially referred to IC Teams, all students

initially referred to Other Teams were ultimately referred to IEP Teams.

Table 3

Logistic Regression of the Log Odds of Initial Referral to IEP, IC, or Other Teams on Potential Predictors

Predictor	Initial Referral to IEP Teams ($n = 206$)		Initial Referral to IC Teams ($n = 441$)		Initial Referral to Other Teams ($n = 191$)	
	O.R.	C.I.	O.R.	C.I.	O.R.	C.I.
ELL Student	3.0*	1.86-4.75	0.6*	0.36-0.90	0.5*	0.27-0.97
Male	0.9	0.62-1.28	1.3	0.90-1.72	0.9	0.59-1.22
1st Grade	0.5*	0.29-0.90	1.3	0.71-2.22	1.7	0.89-3.40
2nd Grade	0.5*	0.30-0.91	0.8	0.47-1.43	3.1*	1.59-5.95
3rd Grade	0.4*	0.21-0.69	0.9	0.52-1.61	3.4*	1.77-6.62
4th Grade	0.7	0.35-1.21	0.7	0.39-1.33	3.0*	1.45-6.17
5th Grade	0.7	0.35-1.28	0.8	0.42-1.44	2.7*	1.25-5.70
Academic concerns	1.0	0.64-1.50	1.6*	1.10-2.20	0.5*	0.36-0.82
Behavioral concerns	1.1	0.59-1.90	1.3	0.79-2.04	0.7	0.37-1.18
Speech/lang. concerns	3.1*	1.79-5.52	0.03*	0.01-0.09	4.0*	2.25-7.19
Constant	0.4*	0.24-0.75	1.1	0.65-1.98	0.2*	0.09-0.34

Note. O.R. = estimate of the odds ratio; C.I. = 95% confidence interval for the odds ratio. Odds ratio gives the change in the odds of being referred to IEP, IC, or Other Teams for a change of one unit in the predictor. For ELL students, this is a change from being an ELL student as compared to a not being an ELL student. If the confidence interval includes the value 1.0, one cannot conclude that a change in the potential predictor is associated with a change in the odds of being initially referred to IEP, IC, or Other Teams. For all logistic regression analyses, significance was determined by using the standard alpha level of .05. For all variables used in the logistic analyses, the diagonal elements of the inverse of the correlation matrices were examined; multicollinearity was not determined to be a concern.
*$p<.05$.

Table 4

Percentage of Individuals Ultimately Referred to IEP Teams According to Initial Team Referral and ELL Status

	IC Teams	Other Teams
Non-ELL ($n = 733$)	29%	100%
ELL ($n = 95$)	46%	100%

The results of a regression of the log odds of being ultimately referred to IEP Teams on ELL status, gender, grade level, and referral concern are shown in Table 5. All other variables being equal, ELL students were twice as likely (2 times the odds) to be ultimately referred to IEP Teams compared to non-ELL students ($p=.06$), but the difference was not significant.

Table 5

Logistic Regression of the Log Odds of Ultimate Referral to IEP Teams on Potential Predictors ($n = 828$)

Predictor	O.R.	C.I.
ELL Student	1.9	0.97-3.90
Male	1.0	0.62-1.59
1st Grade	1.4	0.58-3.21
2nd Grade	1.7	0.71-3.85
3rd Grade	2.1	0.87-4.82
4th Grade	1.3	0.51-3.52
5th Grade	1.0	0.37-2.84
Academic concerns	0.5*	0.31-0.81
Behavioral concerns	0.3*	0.14-0.64
Speech/lang. concerns	4.0	0.32-49.28
Constant	0.5	0.22-1.19

Note. O.R. = estimate of the odds ratio; C.I. = 95% confidence interval for the odds ratio. Odds ratio gives the change in the odds of being ultimately referred to IEP Teams for a change of one unit in the predictor. For ELL students, this is a change from being an ELL student as compared to not being an ELL student. If the confidence interval includes the value 1.0, one cannot conclude that a change in the potential predictor is associated with a change in the odds of being ultimately referred to IEP Teams.
*$p<.05$.

Question 2: At what grade levels were ELL students being referred to IC Teams, IEP

Teams, or Other Teams?

Table 6 describes initial team referrals according to grade level and ELL status.

Table 6

Percentage of Initial Team Referrals by Grade Level and ELL Status (row variable)

	Initial IEP Team Referrals	Initial IC Team Referrals	Initial Other Team Referrals
Kindergarten			
Non-ELL (*n* = 110)	36%	42%	23%
ELL (*n* = 15)	87%	7%	7%
First			
Non-ELL (*n* = 153)	20%	61%	19%
ELL (*n* = 17)	41%	53%	6%
Second			
Non-ELL (*n* = 166)	20%	54%	26%
ELL (*n* = 22)	36%	55%	9%
Third			
Non-ELL (*n* = 139)	17%	55%	28%
ELL (*n* = 20)	25%	45%	30%
Fourth			
Non-ELL (*n* = 91)	23%	54%	23%
ELL (*n* = 12)	33%	33%	33%
Fifth			
Non-ELL (*n* = 82)	23%	52%	24%
ELL (*n* = 11)	27%	73%	0%

Table 7 describes the test for a statistical interaction of grade and ELL status in

the prediction of initial referrals to IEP, IC, or Other Teams. The interaction of grade and

ELL status was significant for children who were initially referred to IEP Teams. In

contrast, the interaction of grade and ELL status was not significant for children who

were initially referred to IC or Other Teams.

Logistic regressions of grade as a predictor on initial referral to IEP Teams were

examined for both the ELL and non-ELL groups (Table 8). Grade level significantly

predicted initial IEP Team referral for ELL students. With each increase in grade level,

the odds of initial IEP Team referral decreased by 0.6. Grade level was not significant

for non-ELL students initially referred to IEP Teams

Table 7

Logistic Regression of the Log Odds of Initial Team Referral on the Interaction of Grade and ELL Status

	Initial Referral to IEP Teams (*n* = 206)		Initial Referral to IC Teams (*n* = 441)		Initial Referral to Other Teams (*n* = 191)	
Predictor	O.R.	C.I.	O.R.	C.I.	O.R.	C.I.
ELL Student	5.3*	2.34-11.79	0.4*	0.16-0.82	0.3	0.10-1.10
Grade	0.9	0.81-1.01	1.0	0.94-1.14	1.1	0.94-1.17
Grade x ELL Status	0.7*	0.52-0.97	1.3	0.98-1.73	1.2	0.82-1.76
Constant	0.4*	0.27-0.48	1.1	0.83-1.39	0.3*	0.21-0.38

Note. O.R. = estimate of the odds ratio; C.I. = 95% confidence interval for the odds ratio. Odds ratio gives the change in the odds of being initially referred to IC, IEP, or Other Teams for a change of one unit in the predictor. For ELL students, this is a change from being an ELL student as compared to a not being an ELL student. If the confidence interval includes the value 1.0, one cannot conclude that a change in the potential predictor is associated with a change in the odds of being initially referred to IC, IEP, or Other Teams.
*$p<.05$.

Table 8

Logistic Regression of the Log Odds of Initial IEP Team Referral on Grade (*n* = 206)

Predictor	O.R.	C.I.
Grade		
Non-ELL	0.9	0.81-1.01
ELL	0.6*	0.48-0.86
Constant		
Non-ELL	0.4*	0.27-0.48
ELL	1.9	0.89-4.00

Note. O.R. = estimate of the odds ratio; C.I. = 95% confidence interval for the odds ratio. Odds ratio gives the change in the odds of being initially referred to IEP Teams for a change of one unit in the predictor. For grade, this is a change of one grade level (e.g., first to second grade). If the confidence interval includes the value 1.0, one cannot conclude that a change in grade is associated with a change in the odds of being initially referred to IEP Teams.
*$p<.05$.

Table 6 (presented earlier) reveals the nature of the interaction of grade and ELL status in initial referrals to IEP or IC Teams. In Kindergarten, ELL students were more likely than non-ELL students to be initially referred to IEP Teams. In all grades, non-ELL students were more likely to be initially referred to IC Teams instead of IEP Teams.

Question 3: Were there gender differences between ELL students being referred to IC Teams, IEP Teams, or Other Teams compared to non-ELL students?

Table 9 describes initial team referrals according to gender and ELL status. Boys were initially referred more often than girls in all cases.

Table 9

Percentage of Non-ELL and ELL Boys and Girls in Initial Team Referrals (column variable)

	IC Teams	IEP Teams	Other Teams
Boys			
Non-ELL ($n =$ 494)	69%	66%	63%
ELL ($n = 71$)	72%	70%	86%
Girls			
Non-ELL($n = 247$)	31%	34%	37%
ELL($n = 26$)	28%	30%	14%

A logistic regression of the log odds of initial team referral on predictor variables, including the interaction of gender and ELL status, was examined. As shown in Table 10, no significant interaction was found between gender and ELL status for initial referrals to IEP Teams (*p*=.67), IC Teams (*p*=.57), or Other Teams (*p*=.19).

Table 10

Logistic Regression of the Log Odds of Initial Team Referral on the Interaction of Gender and ELL Status

Predictor	Initial Referral to IEP Teams (n = 206)		Initial Referral to IC Teams (n = 441)		Initial Referral to Other Teams (n = 191)	
	O.R.	C.I.	O.R.	C.I.	O.R.	C.I.
ELL Student	3.5*	1.47-8.27	0.7	0.29-1.71	0.2*	0.29-1.71
Male	0.9	0.62-1.34	1.3	0.92-1.82	0.8	0.92-1.82
Grade	0.9	0.84-1.05	0.9	0.83-1.01	1.2*	0.83-1.01
Academic concerns	1.0	0.63-1.46	1.6*	1.10-2.19	0.6*	1.10-2.19
Behavioral concerns	1.1	0.61-1.94	1.3	0.80-2.07	0.6	0.80-2.07
Speech/lang. concerns	3.6*	2.07-6.21	0.03*	0.01-0.08	3.3*	0.01-0.08
Gender x ELL Status	0.8	0.29-2.22	0.7	0.27-2.09	3.1	0.27-2.09
Constant	0.3*	0.16-0.46	1.2	0.80-1.93	0.3*	0.80-1.93

Note. O.R. = estimate of the odds ratio; C.I. = 95% confidence interval for the odds ratio. Odds ratio gives the change in the odds of being initially referred to IC, IEP, or Other Teams for a change of one unit in the predictor. For ELL students, this is a change from being an ELL student as compared to a not being an ELL student. If the confidence interval includes the value 1.0, one cannot conclude that a change in the potential predictor is associated with a change in the odds of being initially referred to IC, IEP, or Other Teams.
*$p<.05$.

Question 4: What were the referral concerns for ELL students compared to non-ELL students referred to IC Teams? To IEP Teams? To Other Teams?

Initial referral concerns were coded by two graduate students. Concerns were coded as being one of ten categories; coder reliability was established at 99.4%. Categories were then further collapsed into four categories as follows: Academic Only (consisting of Academic Only, Math Only, Reading Only, Written Language Only); Behavior Only; Combination/Other (consisting of Combination Academic/Behavioral, Combination Academic/Behavioral/Speech/Language, Combination Academic/Speech/Language, Other); and Speech/Language Only.

Table 11 shows the percentage of non-ELL and ELL students and their initial

referral concerns according to team. Twenty-three (23) non-ELL cases (3% of the total

non-ELL sample) and four (4) ELL cases (4% of the total ELL sample) did not include

initial referral concern information, and were therefore excluded from Table 11.

Table 11

Percentage of Referral Concerns for ELL and non-ELL Students According to Initial Team Referral (column variable)

	IC Teams	IEP Teams	Other Teams
Academic Only			
Non-ELL ($n = 348$)	59%	37%	36%
ELL ($n = 51$)	56%	62%	31%
Combination/Other			
Non-ELL($n = 182$)	25%	24%	27%
ELL ($n = 25$)	32%	15%	46%
Behavior Only			
Non-ELL($n = 101$)	16%	13%	11%
ELL($n = 9$)	12%	8%	8%
Speech/Language Only			
Non-ELL($n = 87$)	1%	26%	25%
ELL($n = 8$)	0%	15%	15%

As shown by the logistic regression results in Table 3, an ELL student with

speech/language concerns was more likely to be initially referred to IEP Teams (9 times

the odds) or Other Teams (2 times the odds), and less likely (0.01 times the odds) of

being initially referred to IC Teams. An ELL student with academic concerns was less

likely (0.9 times the odds) of being initially referred to IC Teams and less likely (0.3

times the odds) to be initially referred to Other Teams.

Question 5a: Of the ELL students compared to non-ELL students ultimately referred to

IEP Teams, what percentage was then evaluated for special education eligibility?

As shown in Table 12, more than 70% of all cases initially referred to IEP or

Other Teams and ultimately referred to IEP Teams were evaluated for special education

eligibility. Two cases that were ultimately referred to IEP Teams were missing data and

were not included in Table 12.

Table 12

Percentage of Referrals Evaluated for Special Education Eligibility According to Initial
Referral Team and ELL Status

	IC Teams	IEP Teams	Other Teams
Evaluated			
Non-ELL (*n* = 731)	26%	73%	85%
ELL (*n* = 95)	44%	95%	93%

The results of a regression of the log odds of being evaluated for special education

eligibility on predictor variables are shown in Table 15. ELL students ultimately referred

to IEP Teams were more likely (3 times the odds) to be evaluated for special education

eligibility.

Question 5b: What percentage was found eligible for special education?

As shown in Table 13, more than 60% of all cases evaluated for special education

were found to be eligible for special education. Thirty-one (31) cases that were

ultimately referred to IEP Teams were missing data and were not included in Table 13.

Table 13

Percentage of Cases Evaluated for Special Education Found Eligible According to Initial
Referral Team and ELL Status

	IC Teams	IEP Teams	Other Teams
Found Eligible			
Non-ELL (*n* = 344)	77%	73%	61%
ELL (*n* = 67)	94%	86%	77%

The results of a regression of the log odds of being found eligible for special education on predictor variables are shown in Table 15. ELL students who were evaluated were more likely (3 times the odds) to be found eligible for special education.

Question 5c: For those students who were placed in special education, were placement categories different for ELL than for non-ELL students?

As shown in Table 14, more than 70% of all students found eligible for special education were assigned to high-incidence disability categories. All ELL students initially referred to IC Teams and found eligible for special education were found to have high-incidence disabilities (e.g., mental retardation, speech/language impairment, emotional disturbance, or specific learning disability). Fourteen (14) cases that were found eligible for special education were missing data and were not included in Table 14.

Table 14

Percentage of High- versus Low-Incidence Disability Categories among Eligible Cases, According to Initial Referral Team and ELL Status

	IC Teams	IEP Teams	Other Teams
High-Incidence			
Non-ELL ($n = 189$)	78%	95%	77%
ELL ($n = 49$)	100%	87%	70%
Low-Incidence			
Non-ELL ($n = 38$)	22%	5%	23%
ELL ($n = 7$)	0%	13%	30%

The results of a regression of the log odds of being assigned a low- versus high-incidence disability category on predictor variables are shown in Table 15. There was no significant difference between ELL and non-ELL students and the assignment of high- versus low-incidence disability categories ($p=.9$).

Table 15

Logistic Regression of the Log Odds of Special Education Evaluation, Eligibility, and Assignment of High- or Low-Incidence Disability Categories on Potential Predictors

Predictor	Evaluated for Special Education ($n = 826$)		Found Eligible for Special Education ($n = 411$)		Assignment of High- or Low-Incidence Category ($n = 283$)	
	Est.	95% CI	Est.	95% CI	Est.	95% CI
1st Grade	0.8	0.43-1.56	0.4*	0.15-0.90	1.5	0.39-5.85
2nd Grade	1.1	0.58-2.05	0.5	0.21-1.23	1.2	0.31-4.52
3rd Grade	1.2	0.60-2.22	0.5	0.20-1.20	0.7	0.15-2.81
4th Grade	0.8	0.39-1.66	0.3*	0.11-0.72	0.6	0.14-2.78
5th Grade	0.6	0.28-1.22	1.2	0.40-3.79	0.5	0.10-2.42
IC Teams	0.1*	0.04-0.10	3.2*	1.71-5.99	0.6	0.28-1.46
IEP Teams	0.5*	0.27-0.85	1.6	0.93-2.86	0.2*	0.08-0.56
Academic Concerns	0.5*	0.35-0.81	1.0	0.59-1.78	1.6	0.62-4.08
Behavioral Concerns	0.2*	0.10-0.33	1.1	0.42-2.74	2.7	0.79-9.28
Speech/lang. concerns	1.5	0.64-3.57	3.3*	1.53-7.22	2.8	0.23-33.75
Male	1.1	0.74-1.58	1.6*	1.00-2.68	0.5	0.25-1.05
ELL Student	3.0*	1.71-5.41	3.0*	1.37-6.59	1.1	0.41-2.80
Constant	10.4*	4.73-22.94	1.6	0.63-3.91	0.3	0.08-1.52

Note. O.R. = estimate of the odds ratio; C.I. = 95% confidence interval for the odds ratio. Odds ratio gives the change in the odds of being evaluated, found eligible, and assigned a high- versus low-incidence disability category for a change of one unit in the predictor. For ELL students, this is a change from being an ELL student as compared to not being an ELL student. If the confidence interval includes the value 1.0, one cannot conclude that a change in the potential predictor is associated with a change in the odds of being evaluated, found eligible, and assigned a high- versus low-incidence disability category.
*$p<.05$.

Survey Data

Telephone interviews with administrators from five districts were conducted to gather background information for the 27 project schools; survey data is summarized in Table 16 (see Appendix A for survey).

Table 16

Results of District Telephone Surveys

Variable	District #1	District #2	District #3	District #4	District #5
# students receiving ESL in 2001-02	Approx. 65 ESL/2,561 total enrollment in project schools	Approx. 767 district-wide; 50 ESL/3887 total enrollment in project schools	Approx. 99 district-wide; 10+ in project schools	Approx. 47 district-wide; 10+ in project schools	Approx. 166 district-wide; 25 in project schools
Location of reading instruction	ESL and homeroom/ Mainstream	ESL and homeroom/ Mainstream	ESL and homeroom/ Mainstream	ESL and homeroom/ mainstream	ESL and homeroom/ Mainstream
ESL service delivery process used	Developmental	Mainly developmental, but "everyone invents own terminology." Pull-out often content-based.	Mostly content-based	Start developmental, then content-based	Depends upon the level of the students involved
# receiving pull-out ESL	Unknown	All	Unknown; not tracked at that time. Continuous process: pull-out → in-class plug-in → consultative model for on-grade level kids	All	All
Times/week of ESL	1 or more times/week depending on student	1 period/day, 5 times/week	Depends on funding and student. 3-5 times/week is ideal.	Daily (5x/week)	2-3 times/week
Minutes/day of ESL	30-60 minutes	Approx. 30 minutes	30 min- 2 hours	25-30 min in PreK; all others 45-50 min (allow an hour)	Approx. 30 min/session

Summary

Study results can be summarized as follows:

1. ELL students were more likely to be initially referred to IEP Teams compared to non-ELL students, and less likely to be initially referred to IC Teams or Other Teams.

2. Every ELL student initially referred to Other Teams was ultimately referred to special education, compared to 46% of ELL students initially referred to IC Teams.

3. With each increase in grade level, ELL students were less likely to be initially referred to IEP Teams. Grade level was not a significant factor for non-ELL students initially referred to IEP Teams.

4. In Kindergarten, ELL students were more likely than non-ELL students to be initially referred to IEP Teams. In all grades, non-ELL students were more likely to be initially referred to IC Teams instead of IEP Teams.

5. Gender was not a factor in initial ELL referrals to any of the teams.

6. ELL students with speech/language concerns were more likely to be initially referred to IEP Teams or Other Teams, and less likely to be initially referred to IC Teams.

7. ELL students with academic concerns were less likely to be initially referred to IC Teams and Other Teams.

8. ELL students ultimately referred to IEP Teams were more likely to be evaluated and placed in special education.

9. There were no significant differences between ELL and non-ELL students and the assignment of high- versus low-incidence disability categories; all ELL students initially referred to IC Teams and found eligible for special education were found to have high incidence disabilities.

CHAPTER 5

DISCUSSION

Overview

The purpose of this study was to examine and document the outcomes of ELL

cases in 27 schools using the IC Teams model during the 2001-02 school year.

Evaluation of outcomes of ELL cases can assess how well the IC Teams model addresses

the needs of ELL students. In this final chapter, major study results will be summarized

and discussed in light of existing research. Study limitations will be considered, and

directions for future research will be suggested.

Contextual Information

To place ELL cases in context, background information on ESL service delivery

was collected for each of the five school districts used in the dataset (Table 16). Since

archival data from 2001-02 was used in this project, many of the school districts lacked

information about the number of students receiving ESL services, including pull-out

ESL, at that time. All of the districts reported that reading instruction occurred in the

ESL classrooms as well as the homeroom/mainstream classrooms.

A developmental ESL service delivery model, where the teacher facilitates the

natural growth process of the student through the stages of language development, was

favored by three of the districts, although respondents were not always familiar with the

five models discussed (Table 1). The amount of time and frequency that students spent in

ESL classes varied considerably, from once a week for thirty minutes to daily for 50

minutes. In general, no two districts appeared to have similar ESL service delivery

models. The district administrators interviewed (e.g., *ESOL Curriculum Specialist*,

ESOL Program Director, *Supervisor of English, Foreign Languages, and ESOL*, and

ESOL Coordinators) did not appear to have clear knowledge about the ESL programs

offered in their districts. This suggests that ESL programs may lack structure, including

curricular scope and sequence, which could negatively impact ELL student achievement.

Question 1: Initial and Ultimate Team Referral Frequency

Historically, the literature has emphasized disproportionate representation of CLD

students in special education. This study investigated both initial prereferral intervention

team and ultimate IEP Team referrals of ELL students, disaggregating this group from

the larger CLD population. Specifically, the present study found that ELL students have

a higher chance of being initially referred to IEP Teams, and are less likely to be initially

referred to IC or other types of prereferral intervention teams found in the project

schools. These results are consistent with research indicating that few or no interventions

are tried with ELL students prior to special education referral (Rodriguez & Carrasquillo,

1997). Teachers may be more likely to suspect a within-student disability and feel less

comfortable engaging in problem-solving activities at the prereferral level when ELL

students are involved. These results may also reflect a lack of teacher and prereferral

team professional development and training related to ELL issues, including the

distinction between conversational English skills (BICS) and higher level academic

language skills (CALP) (Cummins, 1999). They also suggest that prereferral teams have

not adequately promoted their teams as being effective for ELL students.

This study also found that in contrast to students initially referred to IC Teams, all

students, including all ELL students, initially referred to the other prereferral intervention

teams found in the project schools were ultimately referred to IEP Teams. This finding

calls into question the effectiveness of the pre-existing problem-solving teams available in these schools. The teams represented in the "Other Teams" category varied by school and included Educational Management Teams, Regular Support Teams, Pupil Services Teams, and Student Support Teams. While these teams differed in terms of their problem-solving process and goals, the study results suggest that none of them were able to respond to concerns about ELL and non-ELL students without referring students to the IEP Team.

These results are consistent with Levinsohn's (2000) finding that students initially referred to Student Support Teams, as opposed to IC Teams, were more likely to be ultimately referred to IEP Teams. Levinsohn (2000) also found race to be a factor, with African American students initially referred to Student Support Teams as compared to IC Teams more likely to be ultimately referred to IEP Teams.

These results illustrate that the type of problem-solving team to which students, including ELL populations, are initially referred can affect ultimate referrals to special education. Students initially referred to IC Teams appear to have a greater chance of having their concerns addressed in the general classroom, without the need for special education. Though fewer non-ELL than ELL students initially referred to IC Teams eventually were referred to IEP Teams, IC Teams was able to effectively address ELL student concerns in 54% of the cases. This may be a result of the IC Team model's adherence to best practices in prereferral intervention teams and systematic, data-based problem-solving (e.g., Allen & Graden, 2002; Flugum & Reschly, 1994). In addition, the IC Team's focus on achieving a match between student, instruction, task, and environment may accurately identify and reframe student concerns in a manner that

enables regular classroom teachers to effectively address problems. Teachers should be encouraged to consider IC Teams as a means for addressing their concerns about students.

Questions 2 and 3: Grade Level, Gender, and Initial Team Referrals

The present study investigated the relationship between grade level, gender, and initial team referrals of ELL students. Results indicated that ELL students were more likely to be initially referred to IEP Teams in the lower grades (especially Kindergarten). This finding is consistent with literature suggesting that Hispanic students are typically referred in the early elementary grades (Rueda, 1985), and that the majority of all special education referrals also occur in the earlier grades (Lloyd, Kauffman, Landrum, & Roe, 1991). In contrast, this study found that grade level was not a significant factor for non-ELL students initially referred to IEP Teams.

In addition, gender did not predict ELL student initial referrals to any of the teams, including IEP Teams. This finding differs from research suggesting that Hispanic boys (Rueda, 1985) and boys in general (Lloyd, Kauffman, Landrum, & Roe, 1991) are referred to special education more often than girls. The present study had more boys than girls in both the ELL and non-ELL groups, which may explain why gender was not a significant predictor for ELL referrals.

Question 4: Initial Referral Concerns by Team

A major finding of the present study was that ELL students with speech/language concerns were more likely to be initially referred to IEP and Other prereferral intervention teams, and less likely to be initially referred to IC Teams. It remains unknown whether this result indicates that teachers were interested in differentiating

speech/language concerns from second language acquisition. The present results may instead reflect research suggesting that students with lower oral language proficiency teacher ratings are at-risk of special education despite satisfactory performance on objective measures, such as standardized reading tests (Limbos & Geva, 2001). In addition, since speech/language concerns often serve as the gateway for special education for Kindergarten ELL students, IC Teams might be in a position to especially impact this population (M. Kushner, personal communication, December 6, 2004).

The literature indicates that culturally and linguistically diverse students are referred to special education for academic and behavioral problems, as well as speech/language concerns in the earlier grades (Ochoa, Robles-Piña, Garcia, & Breunig, 1996; Rodriguez & Carrasquillo, 1997; Rueda, 1985; M. Kushner, personal communication, December 6, 2004). The present study found that ELL students with academic concerns were less likely to be initially referred to any type of prereferral intervention team, but were more likely to be referred directly to an IEP Team. Given the IC Team's focus on instructional variables, this finding points to a lack of teacher and team member awareness and training on the potential benefits the IC Team model can offer at-risk ELL students.

Question 5: Special Education Evaluation, Eligibility, and Placement Categories

The present study found that the majority of all cases initially referred to IEP or prereferral intervention teams other than IC Teams were evaluated for special education eligibility and found eligible for special education. This is consistent with the literature, which suggests that once a student is referred to IEP Teams, the probabilities of special education evaluation and placement are high (Ysseldyke, Vanderwood, & Shriner, 1997).

In addition, ELL students ultimately referred to IEP Teams were more likely to be evaluated and found eligible for special education compared to non-ELLs. This finding is consistent with the literature on over-representation of ELL students in special education (e.g., Artiles, Rueda, Salazar & Higareda, 2002; Ortiz & Yates, 1983), and underscores the importance of addressing factors which may lead to inaccurate ELL referrals.

Finally, all ELL students initially referred to IC Teams and found eligible for special education were found to have high-incidence disabilities. This is consistent with an earlier study showing that the majority of referred Hispanic ELLs were given high-incidence disability categories (Rodriguez & Carrasquillo, 1997). However, this finding remains important because the disability categories of mental retardation, speech/language impairment, emotional disturbance, and specific learning disability which comprised the "high-incidence" category in the present research have been cited as "judgmental" disabilities (e.g., Artiles, Harry, Reschly, & Chinn, 2002; Ortiz & Maldonado-Colón, 1986). Therefore, early intervention via IC Teams to help accurately identify and address concerns are especially important for these students, particularly in the lower elementary grades. There were no significant differences between ELL and non-ELL students and the assignment of high versus low-incidence categories. Further efforts to improve IC Teams services to students are needed to ensure appropriate ultimate referrals, because many students may have been able to be served in general education classrooms.

Limitations

Perhaps the most notable set of limitations are related to the use of archival data not gathered for the purposes of addressing the research questions in this study. First, the researcher had to assume that the archival data provided was accurate and representative of all of the cases referred to IC, Other, or IEP Teams in the schools examined. Secondly, ELL students had to be defined as those receiving ESL services. It is possible that other existing ELL cases were not documented because, for example, the student had exited ESL classes, or ESL services were denied by the parents. Third, the race/ethnicity and native language of the ELL children remains unknown, as was the origin of the initial referral requests (e.g., classroom teacher, ESL teacher, other). Fourth, sample sizes in some of the analyses were small, which impacted the power of the analyses. Fifth, since the data for the present study was collected over the course of one academic year, it remains unknown whether students who were not ultimately referred to special education were in fact referred at some point in the future. Longitudinal research tracking a single cohort of children across a multi-year period would help address this issue. Finally, the speech/language initial referral category was combined, so it is unknown whether ELL students are more likely to be initially referred due to perceived difficulties in speech, language, or a combination of speech and language.

In addition, the schools in the sample were not randomly assigned to implement IC Teams. Historically, IC Teams have been implemented in schools that are seen as particularly receptive to or in need of teacher support teams. It is possible that the schools which decided to implement IC Teams had other factors in common that were not controlled for in this study. Also, while collecting data from 27 schools in five school

districts promotes the generalization of study results, this also led to differences among the teams in the "Other Teams" category. In addition, specific information about the teams in this category was unavailable, including their level of implementation in the schools. The results specific to Other Teams should therefore be cautiously interpreted in their application to the specific teams involved (e.g., Educational Management Teams, Regular Support Teams, Pupil Services Teams, and Student Support Teams).

Finally, while the present study is able to present risk factors for ELL student special education referral, it is unable to address whether ELL students were disproportionately represented in special education. Typically, risk indexes, odds ratios and compositions indexes have been used to describe and discuss disproportionate representation in the literature (e.g., Donovan & Cross, 2002). These calculations were not possible in the present study because the total ELL enrollment within the school population was unknown.

Implications for Practice

The findings that ELL students, particularly Kindergartners and those with speech/language concerns, are less likely to be initially referred to existing prereferral intervention teams instead of IEP Teams, suggests that general education teachers may not feel prepared to respond effectively to the needs of the ELL population. Prereferral intervention teams should increase teacher awareness about their availability to support teachers who have concerns about ELL students. One approach might be to offer professional development opportunities relating to ELL issues, such as the language acquisition process and the distinction between difficulties relating to being an English learner versus those related to a speech/language disability.

Cultural differences, in addition to language differences, may also play a factor in placing ELL students at-risk. Heath (1983) presents a compelling ethnographic account of how children's linguistic development differs between working-class white and working-class black communities, and compares academic outcomes of these children to their middle-class counterparts. Examples of important contextual variables include:

- Amount of time dedicated to reading to and interacting with the child;

- Availability of toys and books in the home;

- Learning by modeling versus direct instruction; and

- Opportunities to answer and receive feedback on que stions.

Heath (1983) documents the significance of these varying patterns of language development for children's success in school. In particular, children from the black working-class communities failed early on in their academic careers, and children from the white working-class communities had success for several years first before eventually failing. These types of cultural variables may be present for at-risk ELL students and should be carefully examined. Problem-solving teams such as IC Teams could assist teachers in determining whether such cultural variables are contributing to the referral concerns of ELL students.

In addition, school-based evidence suggests that the general education context may not be well matched to the instructional needs of ELLs. The present study found that district personnel lacked specific information about ESL programs, including type of model used. Furthermore, Silva, Hook, and Sheppard (2005) found several deviations from best practice in ELL instruction, including lack of coordination and communication among teachers and specialists, disregard for working memory limits and student

instructional levels, lack of data-based decision making and goal setting, loss of academic engaged time, and the non-merging of English language development and academic content. All of these factors should be examined more closely when ELL students present with academic concerns.

Future Directions for Research

This study lays the foundation for numerous questions about ELL students and special education. For example, one question concerns the reasons why ELL students have a higher chance of being initially referred to IEP Teams as opposed to prereferral intervention teams; in addition, this study did not answer the question of who is primarily responsible for referring them. It would be interesting to find out whether children with linguistic differences are seen as having concerns that are less likely to be effectively addressed in general education and ESL.

The finding that teachers perceived referred ELL students as having speech/language concerns was also of interest. For example, one question concerns the reasons why teachers perceived speech/language concerns as important for these students. It would be interesting to find out whether students referred for speech/language had academic or behavioral concerns, as well. Examining how teachers differentiated between concerns due to normal language acquisition/accents and concerns due to apparent disabilities is also of interest. In particular, a qualitative study interviewing Kindergarten teachers about their referral practices might be a useful next step. The finding that ELL children, particularly in the early grades, were more likely to be initially referred to IEP Teams calls for research examining the evidence educators used to reach their referral decisions.

Several interesting questions about prereferral intervention teams are also indicated. For example, this study found that IC Teams was more effective in reducing ELL student referrals to special education compared to the other prereferral intervention teams used by these schools. It would be interesting to document differences in referral rates of ELL students for IC Teams versus specific prereferral teams, such as SST and TAT Teams. This study also found that IC Teams was less effective at addressing ELL student concerns compared to non-ELL student concerns. Future research should investigate the reasons for this finding.

In addition, this study found that ELL students with academic concerns were less likely to be initially referred to IC and other existing prereferral intervention teams. Research investigating the reasons for teachers' decisions to bypass prereferral intervention teams could determine whether teachers felt that the available prereferral teams would not be effective in terms of addressing ELL students' academic concerns. Future research on team member competency in addressing ELL student concerns would also be of interest. In addition, it would be interesting to document the goal attainment process for ELL students initially referred to IC Teams, and compare it with the goal attainment process for non-ELLs. ELL cases must be further investigated in IC Teams schools to address these issues.

Finally, future research on the outcomes of service delivery to ELL students could help identify best practice in addressing at-risk students. For example, it would be useful to investigate the amount of time ELL students spend in pull-out placements compared to non-ELL students, as well as the effects of increased transition time on academic engaged time. Factors such as coordination of services, establishment of goals, and assessment of

progress should be documented. Silva, Hook, and Sheppard's (2005) project on

supporting the instructional environments of at-risk ELLs should be further evaluated to

determine if these strategies are useful in supporting the academic needs of ELLs in

general education and ESL classrooms. Research on effective prereferral interventions

for ELLs and ELL disproportionality in special education should also continue, to ensure

that these children are appropriately and equitably served within public schools.

Conclusions

The present study serves as an examination and documentation of ELL cases in

IC Teams schools. Statistically significant differences were found in ELL versus non-

ELL student initial and ultimate team referrals. Initial referral concerns also differed

significantly between ELL and non-ELL students. IC Teams were found to be more

effective than existing prereferral intervention teams in decreasing the special education

referrals of ELL and non-ELL students. The results of the present study serve as a

foundation for future research in the areas of at-risk ELL students and their referrals to

prereferral intervention teams and special education.

APPENDIX A: ESL Teacher Telephone Survey Form

School: _____

Interviewee Name: _____

Date: _____

During the 2001-02 school year:

1. Of the total school population, how many students received ESL services?

2. Did reading instruction occur in ESOL or in homeroom/mainstream?

3. What kind of ESL service delivery process was used?

    a. Developmental

    b. Content-based

    c. Cognitive/learning strategies

    d. Functional/life skills

    e. Career-based/vocational ESL

    f. Other

    g. Don't know

4. How many students received pull-out ESL services?

    a. How many times per week?

    b. How many minutes per day?

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