

11-15-1995

# Perceptions of elementary teachers on the characteristics of gifted students in general versus gifted Hispanic limited English proficient students

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**DOI:** 10.25148/etd.FI15101379

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FLORIDA INTERNATIONAL UNIVERSITY

Miami, Florida

PERCEPTIONS OF ELEMENTARY TEACHERS ON THE CHARACTERISTICS  
OF GIFTED STUDENTS IN GENERAL VERSUS GIFTED HISPANIC  
LIMITED ENGLISH PROFICIENT STUDENTS

A dissertation submitted in partial fulfillment of the  
requirements for the degree of  
DOCTOR OF EDUCATION  
IN  
EXCEPTIONAL STUDENT EDUCATION

by

Alberto T. Fernández

1995

To: Dean I. Ira Goldenberg  
College of Education

This dissertation, written by Alberto T. Fernández, and entitled PERCEPTIONS OF ELEMENTARY TEACHERS ON THE CHARACTERISTICS OF GIFTED STUDENTS IN GENERAL VERSUS GIFTED HISPANIC LIMITED ENGLISH PROFICIENT STUDENTS, having been approved in respect to style and intellectual content, is referred to you for judgement.

We have read this dissertation and recommend that it be approved.

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Date of Defense: November 15, 1995

The dissertation of Alberto T. Fernández is approved.

Dean I. Ira Goldenberg

Dean Richard L. Campbell

Florida International University, 1995

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## DEDICATION

This dissertation is dedicated to my wife, Sonia, and our sons, Jeffrey and Jonathan. They gave me the inspiration, love, and support needed to complete this work.

This dissertation is also dedicated to my parents, Tomás Alberto Gelasio Fernández y Pujol and Maria del Rosario Vicente y Ulecia de Fernández Pujol. They taught me the value of an education.

A.T.F.

## ACKNOWLEDGMENTS

Many people helped me with the completion of this dissertation. My major professor, Marisal Reyes Gavilan, provided the leadership and advice I needed to accomplish this work. The other members of my dissertation committee, Rosa Castro Feinberg, Blanca H. Garcia, Luretha F. Lucky, and Lorraine R. Gay gave me invaluable guidance and assistance throughout the completion of my dissertation. All five gave me the unconditional support and advice needed to produce a dissertation that I will always be proud of.

Paulette Johnson provided ongoing support in the statistical aspects of the study. Paul Rendulic helped me with the design of the instrument and the tables used in the manuscript. E. Anthony DeMorizi provided ideas and feedback on my work from its initial stages. Suzanne Krankowsky, Lucas de la Torre, and Jeff Vidal helped me with the data collection. My sister, Margarita, and my brothers-in-law, Bill and David, helped with the proofreading. My brother-in-law, Henry, assisted me with the data input of the field test. Elisah Lewis provided support and advice, and helped with the proofreading. Last, but not least, my father helped with the typing. I am forever grateful to all these individuals for helping me to complete my dissertation.

ABSTRACT OF THE DISSERTATION

Perceptions of Elementary Teachers on the Characteristics  
of Gifted Students in General Versus Gifted Hispanic  
Limited English Proficient Students

by

Alberto T. Fernández

Florida International University, 1995

Miami, Florida

Professor Marisal Reyes Gavilan, Major Professor

The purpose of the study was to determine whether teachers' perceptions of characteristics of gifted students in general differed from perceptions of gifted students classified as Hispanic and limited English proficient. The study also sought to determine whether the teachers' perceptions differed based on their ethnic backgrounds. Three-hundred seventy-three teachers from nine elementary schools in Dade County, Florida completed a 34-item Likert-type survey on gifted characteristics. The survey contained an open-ended question at the end to elicit comments beyond those covered by the items. Randomly, one-half of the teachers in each school received the survey labeled "Gifted Hispanic LEP" and the other half received the survey labeled "Gifted." Subjects were not made aware that they were given

surveys with different labels. Results of a two-way MANOVA indicated that there were significant differences in responses by survey group and by ethnicity, and there was no significant interaction between group and ethnicity. Results of a Spearman Rho test on the rank ordering of responses for the groups found a significant positive correlation, suggesting that both groups perceived a similar order of importance for the characteristics. However, relative importance differed significantly in language-related items. There were also significant differences between the groups in the degree to which they rated the characteristics as important. Generally, means of the highest ranked items were significantly higher for the group responding to the survey labeled Gifted than for the other group. Similarly, subjects who completed the survey labeled Gifted rated the lower ranked characteristics significantly lower than the other group. Neither group viewed artistic, musical, and kinesthetic abilities as important characteristics of giftedness. However, teachers in the Gifted Hispanic LEP group rated these characteristics significantly more favorably (although still low). Hispanics tended to rate the items higher than the other two ethnicities, although significant differences existed among all three.

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## CHAPTER I

### Introduction

The number of school-age Hispanic children in the United States (U.S.) has increased dramatically during the last decade according to figures released by the Bureau of the Census (Montgomery, 1994). Projections by the Bureau indicate that this increase will continue in even more significant numbers onto the year 2050 (Day, 1993). In 1990, there were over five million Hispanic school-age children, representing 11.8 percent of the total school population. By the year 2050, this number will increase to over 18 million or 26.6 percent of the school-age population, making Hispanic students the second largest ethnic group in the country.

According to Mora (1994), there are more than 2.3 million limited English proficient (LEP) students in the U.S., the majority being of Hispanic origin. This represents an increase of 26% during the last ten years. The trend is expected to continue, posing great challenges to schools in almost every region of the country but especially in large school districts (Mora, 1994) like the Dade County Public Schools (DCPS).

One such challenge is the ability to provide an appropriate education to gifted Hispanic LEP students.

These students are under-represented in gifted programs throughout the country (Kitano, 1991; LaFontaine, 1987). Moreover, they are under-represented in the State of Florida and in the DCPS (Florida Department of Education, 1994).

DCPS, the fourth largest school system in the nation, currently serves 314,000 students from diverse ethnic and cultural groups. About 47,000 (15.0%) of these are LEP, and the majority of these LEP students (approximately 38,000) are of Hispanic origin (DCPS, 1995).

Currently, of the total DCPS student population, there are 12,419 students attending gifted programs. However, only 49 of the students identified as gifted in DCPS are LEP (forty-one of which are Hispanic) (DCPS, 1995). The number of gifted Hispanic LEP students represents 0.3% of the total gifted student population and 0.1 % of the total Hispanic LEP population. As evidenced by these figures, there is an imperative need to examine the policies/practices used to determine eligibility for gifted programs.

In DCPS, a staffing committee determines eligibility following the policies outlined in State Board Rules and approved local practices (Florida Department of Education, 1993). The eligibility criteria are based on standardized measures, whose norming groups do not have adequate representation of language-minority students (e.g.,

Hispanic) (Bernal, 1976; Melesky, 1985), and on characteristics of gifted children as measured by a standardized scale or checklist (Richert, Alvino, & McDonnel, 1982).

A variety of reasons have been offered to explain the under-identification of LEP students in gifted programs. These include the lack of valid tests for identifying these children (Melesky, 1985), the biased nature of standardized tests (Boyle, 1987; Gonzalez & Yawkey, 1993), the imprecise definitions of giftedness (McKenzie, 1986; Melesky, 1985), and the teacher's lack of familiarity with LEP student characteristics (Bermúdez & Rakow, 1990). Of these, it is the teacher's knowledge about the student that may have the greatest influence on the identification process. The teacher's nomination of a student for the gifted program (or lack thereof) often determines the possibility of a student's admission to the program (Schack & Starko, 1990).

Little attention has been paid to teachers' views of giftedness. Yet, these views have a large impact on the education of gifted students, in particular those who are under-identified and underserved (i.e., Hispanic LEP). Because the gifted programs in DCPS, as well as in most other districts (Adderholdt-Elliot et al., 1991; Richert et al., 1982), use teacher nominations as part of the referral

and identification process, understanding teachers' perceptions of gifted Hispanic LEP students is critical. Moreover, because most LEP students are found in the elementary grades (Mora, 1994), and because giftedness typically reveals itself in childhood (Terman, 1925), there is a need to investigate the perceptions of giftedness by teachers at the elementary school level.

#### Purpose of the Study

The purpose of the study is to determine whether the perceptions of DCPS elementary teachers on the characteristics of gifted students in general differ from their perceptions of gifted students classified as Hispanic LEP. The study also seeks to determine whether the teachers' perceptions differ based on their ethnic backgrounds.

#### Research Questions

The following is a list of the research questions that the study answers.

Question 1:

Given a list of descriptors, how do elementary school teachers in DCPS rate the importance of various characteristics for gifted Hispanic LEP students?

Question 2:

Given a list of descriptors, how do elementary school

teachers in DCPS rate the importance of various characteristics for any gifted student (regardless of ethnicity [i.e., Hispanic] and language proficiency)?

Question 3:

Are the perceptions of the characteristics mentioned in question 1 different from those of 2, and, if so, how are they different?

Question 4:

Do these perceptions differ based on the teachers' ethnic membership?

In addition, subject demographic data are used to describe the subjects and to explore whether other teacher characteristics are significantly correlated to perceptions for control purposes. Such demographic data include: the teacher's country of birth, level of education, language background, subject/grade taught, years of teaching, and gender.

#### Definition of Terms

The following terms are operationally defined to insure consistency in meaning throughout the study.

English for Speakers of Other Languages. The term English for Speakers of Other Languages is defined as:

a teaching approach in which LEP students are instructed in the use of the English language ... based

on a special curriculum that typically involves little or no use of their native language and is usually taught only in specific school periods. (Mora, 1994, p. 24)

Gifted Students. The term gifted students is defined by the Jacob K. Javits Gifted and Talented Students Education Act of 1988 as:

... children and youth who give evidence of high performance capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who require services or activities not ordinarily provided by the school in order to fully develop such capacities. (Sec. 4103)

Hispanic. A Hispanic is defined by the Bureau of the Census as "a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race" (Day, 1993 p. xl).

Limited English Proficient. The term limited English proficient (LEP) is defined in the Bilingual Education Act of 1988 as:

(A) individuals who were not born in the United States or whose native language is a language other than English;

(B) individuals who come from environments where a

language other than English is dominant; and  
(C) individuals who are American Indian and  
Alaska Natives and who come from environments  
where a language other than English has had a  
significant impact on their level of English  
language proficiency;

and who, by reason thereof, have sufficient difficulty  
speaking, reading, writing, or understanding the  
English language to deny such individuals the  
opportunity to learn successfully in classrooms where  
the language of instruction is English or to  
participate fully in our society. (Sec. 7003)

Native Language. The term native language is defined  
in the Bilingual Education Act of 1974 as "the language  
normally used by ... individuals, or in the case of a child,  
the language normally used by the parents of the child"  
(Sec. 703 [a] [2]). The term native language in this study  
may be used interchangeably with the term home language.

Non-gifted Students. Non-gifted students refers to  
students who are not classified or otherwise identified as  
gifted.

Teacher Perceptions. The term teacher perceptions  
refers to teacher beliefs about student characteristics.  
The term perception may be used interchangeably in this

study with the word "view" which is defined as a "judgment, opinion, or way of thinking" (Webster, 1977).

Teacher Rating Scale. The term teacher rating scale is defined as an assessment instrument used to rate students on gifted characteristics or to nominate students for gifted programs. The term teacher rating scale is used interchangeably with the terms teacher nomination scale and teacher checklist.

### Significance of the Study

The opportunity to participate in gifted programs (when offered by an educational agency) is a civil right (Gallagher, 1995). The basis of the LEP student's right to such programs was established by the Civil Rights Act of 1964. Title VI of the Act prohibits school districts receiving federal funds from discriminating against individuals on the basis of race, color, or national origin. In 1968, the former Department of Health, Education and Welfare (HEW) issued guidelines for Title VI compliance that required districts receiving federal funds to guarantee that students of a particular race or national origin were not denied opportunity to receive the same services obtained by other students. In addition, HEW issued a memorandum in 1970 that made the guidelines more specific, requiring districts to remove LEP students' English language barriers.



Title VI and the HEW guidelines apply to all LEP students (Fernández, 1992; Fernández & Pell, 1989), including those who may be gifted.

In 1975, Congress passed the Equal Education Opportunity Act. According to section 1703(f) of this Act, "no state shall deny equal educational opportunity to an individual on account of his or her race, color, sex or national origin by ... the failure by an educational agency to take appropriate action to overcome language barriers that impede equal participation by its students in its instructional programs." This mandate applies to all programs, including those designed for gifted students.

Congress has continued to show concern about the ability to adequately educate LEP students (Mora, 1994). For example, in the Individuals with Disabilities Education Act [IDEA] (1990) Congress stated that, "populations such as ... the limited-English proficient ..." are "underserved" (Sec. 602 [I]). Section 610 (I) (1) of the Act states that:

The limited English proficient population is the fastest growing in our Nation, and the growth is occurring in many parts of our Nation. In the Nation's 2 largest school districts, limited-English students make up almost half of all students initially entering

school at the kindergarten level. Studies have documented apparent discrepancies in the levels of referral and placement of limited-English proficient children in special education. The Department of Education has found that services provided to limited-English proficient students often do not respond primarily to the pupil's academic needs. These trends pose especial challenges for special education in the referral, assessment, and services for our Nation's students from non-English language backgrounds. (104 Stat. 1108)

It must be noted that nine states, including Florida, classify gifted students as an exceptionality under the guidelines established by IDEA (Passow, 1993). These guidelines include the provision of an "appropriate education," an Individualized Educational Program (IEP), and procedural safeguards available to parents of exceptional students.

The courts have also supported the LEP student's right to participate effectively in educational programs. In Lau v. Nichols (1974), the Supreme Court ruled that failure to provide adequate instructional procedures to LEP students denied them "meaningful opportunity to participate" in school programs, in violation of Title VI (414 U.S. 468).

A recent court case in Florida, League of United Latin American Citizens, et al. v. Florida Board of Education, et al. (1990), re-affirmed LEP students' rights to equal opportunity to all programs, including gifted programs. A consent agreement was reached between the parties. The agreement, which also affected DCPS, included procedures for identifying LEP students; providing students ESOL and understandable instruction in basic subject areas; monitoring students' performance after exiting the bilingual education program; requiring districts to develop local plans to serve LEP students; promoting parent involvement through leadership councils; personnel training; and providing equal access to programs and services, including gifted programs.

In spite of the aforementioned laws and court decisions, the assistance provided LEP students varies from district to district (Mora, 1994), and such students are not proportionately represented in gifted programs (LaFontaine, 1987; Kitano, 1991). A variety of attempts to improve the identification of these students (e.g., using multiple criteria) has resulted in few gains (Hunsaker, 1994).

The most common assessment methods utilized in the identification of gifted students include intelligence tests, academic achievement tests, and teacher nomination

scales (Adderholdt-Elliot, Algozzine, Algozzine, & Haney, 1991). Of these, the teacher's nomination of the student has the greatest impact in the identification process; without this initial step, there is little hope to evaluate and, hence, identify the gifted student. Because decisions made by individuals are usually based on their beliefs (Bandura, 1986), it is important to understand teachers' perceptions of giftedness that may influence their decision to nominate (or to not nominate) Hispanic LEP students for gifted programs.

There have been a few studies in the area of teacher perceptions of giftedness (Awanbor, 1991; Busse, Dahme, Wagner, & Wieczerkowski, 1986; Copenhaver & McIntyre, 1992; Guskin, Pen, & Majd-Jabbari, 1988; Schack & Starko, 1990). However, they have not studied teachers' perceptions of gifted Hispanic LEP students. Only two studies to date have been conducted to specifically assess views about gifted Hispanic LEP student characteristics (Bernal, 1974; Márquez, Bermúdez, & Rakow, 1992). However, these studies did not focus specifically on teachers' perceptions.

To improve the identification of gifted Hispanic LEP students, the present study examines teachers' perceptions of such students. The study attempts to contribute information about teacher perceptions which may be similar

to or different from their perceptions of non-Hispanic, non-LEP gifted students. It analyzes teacher ethnicity to determine how perceptions correspond to this factor. Moreover, it focusses on perceptions of teachers at the elementary level, where children's attitudes about learning are formed (Gallagher, 1988).

As a theoretical contribution, the study adds to the body of literature in the areas of teacher perceptions of giftedness and of assessment methods for identifying underserved gifted students, in particular those who are Hispanic and LEP. Of practical significance, the results of the study impacts the legal and educational problem of under-identifying gifted Hispanic LEP students, especially in DCPS. Recommendations for practical applications are offered based on the results.

#### Limitations of the Study

Given the diverse ethnic backgrounds in teacher and student population in DCPS, the generalizability of results may be limited to school districts with similar populations. However, this is a limitation only if it is assumed that teachers from such school districts perceive gifted characteristics differently from those who work in homogeneous districts. Another limitation of the study is the use of an instrument with unknown validity, although the

instrument was used in a previous research study (Márquez, Bermúdez, & Rakow, 1992). This limitation is minimized by establishing the instrument's validity through a panel of experts who agreed that the instrument measures its intended purpose.

## CHAPTER II

### Review of Related Literature

#### Definitions of Giftedness

In order to properly identify gifted Hispanic LEP students, it is critical to understand what is meant by the term "giftedness." According to Sternberg and Davidson (1986):

Giftedness is something we invent, not something we discover. It is what one society or another wants it to be, and hence its conceptualization can change over time and place. If the definition of giftedness is a useful one, it can lead to favorable consequences of many kinds, both for society and for individuals. If the definition of giftedness is not useful, valuable talents may be wasted, and less valuable ones fostered and encouraged. It is thus important for all of us to understand just what it is we, and others, mean by the concept of giftedness. (pp. 3-4)

An explicit definition of giftedness is important because of the connection between the definition and the system for the identification of gifted students (Hoge, 1988).

Unfortunately, giftedness is a very unclear concept (Eysenck & Barrett, 1993). There is much disagreement and lack of precision in its definition (Feldhusen & Jarwan, 1993; Hoge,

1988).

Early definitions of giftedness focussed on superior individual characteristics and general intellectual abilities (Gallagher & Courtright, 1986). Terman (1959) defined giftedness operationally in relation to performance on an intelligence test as follows: "'Superior intellectuality' is here arbitrarily defined as ability to make a high score on such intelligence tests as the National, the Terman Group, and the Stanford-Binet" (p. 631).

According to Gagné (1993), two definitions have withstood the test of time, appearing regularly in historical surveys of the gifted movement: the definition offered by Witty (1958) and the definition offered by DeHaan and Havighurst (1957). According to Witty (1957), a gifted child is one "whose performance in a potentially valuable line of human activity is considered remarkable in any potentially valuable area" (p. 62). DeHaan and Havighurst (1957) specified six domains of giftedness: creative thinking, intellectual ability, mechanical skills, scientific ability, social leadership, and talents in the fine arts. Both definitions went beyond the traditional testing of intelligence (Gagné, 1993).

Currently, most scholars define giftedness as involving



multiple qualities (Siegler & Kotovsky, 1986). They argue that it involves social and motivational properties and view intelligence test scores as inadequate measures of the construct.

Tannenbaum (1986) defined giftedness in a psychosocial perspective. He proposed that giftedness is not one entity, but four different kinds of talents: scarcity, surplus, quota, and anomalous. Scarcity talents are those limited in supply that make living easier, safer, healthier, and more intelligible. Surplus talents are those that elevate people's sensitivities to new heights through the production of great art, literature, music, and philosophy. Quota talents are the specialized skills needed to provide the goods and services in a limited market. Anomalous talents are those recognized as a type of excellence which society does not necessarily value or disvalue, including practical domains (e.g., gardening), amusing specialties (e.g., memory expert), and extinct abilities (e.g., stone cutter).

Renzulli (1978) took a different approach from Tannenbaum in defining giftedness by focussing on the individual rather than on society. Moreover, he argued that superior general academic ability is not necessary for a person to be considered gifted. He proposed a three-ring conception of giftedness consisting of (1) above average

ability, (2) task commitment, and (3) creativity. According to this conception, neither one of the three clusters by itself is responsible for giftedness. Rather, it is the interaction among the three that is the necessary ingredient for gifted accomplishment. Furthermore, Renzulli believed that a definition of giftedness should be applicable to all performance areas. He offered the following definition:

Giftedness consists of an interaction among three basic clusters of human traits -- these clusters being above-average general abilities, high levels of task commitment, and high levels of creativity. Gifted and talented children are those possessing or capable of developing this composite set of traits and applying them to any potentially valuable area of human performance. Children who manifest or are capable of developing an interaction among the three clusters require a wide variety of educational opportunities and services that are not ordinarily provided through regular instructional programs. (p. 261)

Whereas Renzulli emphasized the existence of and interaction between the aforementioned three clusters, Gardner (1983, 1993) suggested that there are a variety of intelligences and that these intelligences in isolation or in combination can contribute to outstanding achievement. Gardner (1993)

offered the following definition:

Giftedness is a sign of precocious biopsychological potential in whichever domains exist in a culture. An individual who advances quickly, who is "at promise" in an available task area or domain, earns the epithet "gifted." Individuals can be gifted in any area that is recognized as involving intelligence. (p. 51)

Gardner (1993) proposed a developmental giftedness matrix that includes (in developmental order) intelligence, giftedness, prodigiousness, expertise, creativity, and genius. Whereas Renzulli considered creativity a necessary part of the gifted construct, Gardner (1993) claimed that creativity and giftedness can occur as separate domains, with superior creativity occurring later in the person's life.

Similar to Gardner (1983, 1993) and Tannenbaum (1986); Haensly, Reynolds, and Hash (1986) defined giftedness within a social context. They proposed four components of giftedness: coalescence, context, conflict, and commitment. Coalescence is the way abilities work together to create significant products. The context component, which is the basis of Tannenbaum's psychosocial conception of giftedness, refers to the situational elements that determine the value of a product. Conflict refers to the development of the

gifted person through the person's special response to pressure from the environment. Finally, commitment, which is similar to Renzulli's "task commitment," is the person's willingness to persist toward the development of excellence.

Feldhusen (1986) proposed four elements of giftedness: general intellectual ability, motivation to achieve, positive self-concept, and specialized talents. Similar to Renzulli, he valued the importance of general ability. However, he distinguished specialized abilities from general abilities, and he did not view creativity as a unitary trait but rather as a domain-specific talent or set of talents. Like Renzulli, he used motivation in his definition, but a distinct type of motivation: achievement motivation.

Recently, Feldhusen (1992) modified his position, presenting a model that assumes genetically determined abilities that emerge precociously and are nurtured through the impact of community, family, school, learning styles, and motivation. These abilities create a functional knowledge base and metacognitive and creative skills. He made a distinction between giftedness and talents, although they appear to overlap and seem synonymous. He defined giftedness as "a complex of intelligences(s), aptitude, talents, skills, expertise, motivations, and creativity that lead the individual to productive performance in areas or

domains or disciplines valued by the culture and time" (p. 5). He defined talent as "a complex of aptitudes or intelligences, learned skills and knowledge and motivations-attitudes-dispositions, that predispose an individual to successes in an occupation, vocation, profession, art, or business" (p. 5).

#### Federal and State Definitions of Giftedness

The Federal definition is also clearly different from earlier attempts at measuring individual differences (Gallagher & Courtright, 1986). It was first proposed in a report on the education of the gifted submitted to Congress by the U.S. Commissioner of Education (Marland, 1972):

Gifted and talented children are those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and/or services beyond those normally provided by the regular school programs in order to realize their contribution to self and society.

Children capable of high performance include those with demonstrated achievement and/or potential ability in any of the following areas, singly or in combination: (1) general intellectual ability, (2)

specific academic aptitude, (3) creative and productive thinking, (4) leadership ability, (5) visual and performing arts, and (6) psychomotor ability. (p. ix)

The definition was officially adopted by Congress when it passed the Jacob K. Javits Gifted and Talented Act (1988). (Note: The psychomotor ability category was dropped from the definition.) Most states have adopted a similar definition to the one in the Federal legislation (Adderholdt-Elliott et al., 1991; Lukenbill, 1991).

Some scholars have recommended the use of all of the giftedness areas identified in the Federal definition, to improve the identification and education of gifted minority students (Torrance, 1978). However, the area of general intellectual abilities continues to dominate most state definitions. A survey of state policies and practices (Lukenbill, 1991) indicated that 46 states use general intellectual ability as the most common area of giftedness in their definition. Forty-four states reported specific academic aptitude, followed by creative thinking (37 states), advanced fine/creative arts ability (32 states) and leadership (26 states). In Florida schools, a gifted student is defined as "one who has superior intellectual development and is capable of high performance" (Florida Department of Education, 1993, p. 129).

State definitions become operational ones due to legal, procedural requirements. However, an operational definition should be applicable to all socially useful performance areas (e.g., math, visual arts, music, etc.) (Renzulli, 1978). Domains of achievement in which a person may be considered gifted are determined by the needs and values of the person's culture (Gardner, 1983, 1993). These domains may not be the same as those found in operational definitions, as giftedness can be considered a social construct "that exists in the eyes of the definers" (Sapon-Shevin, 1994, p. 16).

Although the present day gifted movement has, in theory, moved toward multiple criteria for identifying gifted students (Perleth, Sierwald, & Heller, 1993; Renzulli, 1978), in practice, the testing of intelligence is very much used in this process (Lukenbill, 1991; Saccuzzo, Johnson, & Guertin, 1994). However, it is difficult for people to agree on what is intelligence and how to measure it (Sapon-Shevin, 1994).

#### Views of Intelligence

A variety of views of intelligence have been offered throughout the years. In 1575, Juan Huarte, a Spanish physician, defined intelligence as the ability to learn, exercise judgment, and be imaginative (Cowley, 1994).

Galton (1869) suggested that mental associations, in their sum, constitute general ability, which he identified as intelligence. Binet and Simon (1916) theorized that intelligence was composed of three discrete components: (1) direction, which consists of knowing what has to be done; (2) adaptation, which refers to selecting and monitoring the strategies needed to perform tasks; and (3) criticism, which relates to the ability to criticize one's own actions and thoughts. Spearman (1923) suggested that intelligence entailed "educing either relations or correlates" (p. 300) and proposed a two-factor theory; g for general ability and s for specific ability. Thurnstone (1938), in contrast to Spearman, created the multiple-factor theory of intelligence and proposed primary mental abilities in which intelligence composes seven such abilities: inductive reasoning, memory, perceptual speed, number, spatial visualization, verbal comprehension, and verbal fluency. Stoddard (1941) offered a comprehensive definition:

Intelligence is the ability to understand activities that are characterized by (1) difficulty, (2) complexity, (3) abstractness, (4) economy, (5) adaptiveness to a goal, (6) social value, and (7) the emergence of originals ... (p. 255)



Wechsler (1958) defined intelligence as "the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment" (p. 7). Cattell (1963) theorized the existence of "fluid" intelligence, which relates to latent or genotypic *g*, and "crystallized" intelligence, which reflects phenotypic *p* (e.g., test performance). Guilford (1967) viewed intelligence as a proficiency with which the mind functions, and he developed a multi-factor theory of intelligence based on three dimensions -- the operations used in processing information, the contents, and the products. Gardner (1983) postulated that there are at least seven intelligences in a given culture: bodily-kinesthetic, interpersonal, intrapersonal, linguistic, logical-mathematical, musical, and spacial.

Recently, Sternberg (1986) developed a theory that separates intelligence into three subtheories: (1) componential, which relates to the mental mechanisms of the individual; (2) experiential, which relates to the ability to deal with novel tasks or situations and to automatize information processing; and (3) contextual, which relates to dealing with real-world environments relevant to the person's life. Unfortunately, the meaning of intelligence is not much clearer now than it was fifty-two years ago when

Boring (1923) defined it as "what the tests measure" (p. 260).

Some people have argued that the definition of intelligence around the characteristics of the white, upper-middle class, and the subsequent selection of the student according to this definition depicts gifted education in the U.S. (Sapon-Shevin, 1994). Others have indicated that the intelligence construct cannot be justified scientifically and that attempts to measure it lack educational and social value (Ebel, 1979; Lewontin, Stemen, & Kamin, 1984). Some have expressed their concerns about the validity of the testing of intelligence (Hilliard, 1979; Hoge, 1988), especially with minority students (Mercer, 1979).

### Intelligence Testing

There are various opinions about the use of intelligence tests. Some people believe that these tests are racist in their implications (Kamin, 1974; Hilliard, 1979). Others have argued that they are the best method for the identification of children with superior abilities (Sattler, 1988). Although there is some evidence that they give adequate predictions of how well students do in schools and in other areas of life (Jensen, 1979), some authorities argue that intelligence tests do not predict success in adult life and other areas outside of school (Gardner,

1983). Some have suggested that intelligence tests and achievement tests measure the same skills, and that the test scores only indicate what the person has learned (Cleary, Humphreys, Kendrick, & Wesman, 1975; Mercer, 1979; Wesman, 1968). Others have argued that intelligence tests measure language proficiency (Oller & Perkins, 1978; 1980).

Intelligence tests assume that intellectual ability in childhood improves increasingly with age. Questions on these tests are ranked by chronological age (CA), which permits the determination of the examinee's mental age (MA) based on correct responses to items. Based on the results, a formula is used whereby the individual's mental age (MA) is divided by the chronological age (CA) to come up with the measured intelligence quotient (IQ) ( $MA/CA=IQ$ ).

As with most standardized instruments, IQ tests have one set of norms that are corrected for chronological age but not for the influence of demographic variables of the persons being tested. Some researchers have argued that the use of intelligence tests without ethnic and cultural considerations is erroneously based on the assumption that all students and situations are the same (Saccuzzo et al., 1994). However, the impact of demographic factors on the validity of test results cannot be ignored. For example, cross-sectional studies conducted by Heaton, Grant, and

Matthews (1986) indicated that a single set of norms for the adult version of the WISC cannot be used for subjects at different ages and education levels.

There are few systematic studies of IQ tests regarding the validity and reliability on populations which are different from those in the sample on which a given test was normed (Hilliard, 1979; Melesky, 1985). Much of the support for IQ tests in general comes from research suggesting the predictive validity of the tests (Jensen, 1980; Terman & Oden, 1959). The test scores have been shown to be associated with school success. For example, IQ and academic achievement tests have correlated between .80 and .90 (Jensen, 1980). However, the tests have been regarded as different forms of the same test (Mercer, 1988). Rather than testing the person's capacity to learn, the tests may be measuring current performance (Cleary et al., 1975; Mercer, 1988). Furthermore, there is no way to separate out which part of the performance is due to "the person's capability from that part which is due to the nature of teaching which different cultural groups receive in school" (Hilliard, 1979, p. 54).

According to Hilliard (1979), cultural bias historically has interfered with the scientific study of intelligence and with the validation of IQ tests. Hilliard

argues that investigators are products of a particular milieu with their perceptions situated in that milieu. He argues that the "idea of intelligence, or particular conceptions of intelligence are so ingrained in the psyche of the profession that they constitute what may be an infection of the collective professional belief system" (p. 51).

According to Renzulli (1978), the problem of subjectivity in the measurement of giftedness cannot be easily rectified. He offers the following suggestion: "As the definition of giftedness is extended beyond those abilities clearly reflected in tests of intelligence, achievement, and academic aptitude, it becomes necessary to put less emphasis on precise estimates of performance and potential and more emphasis on the opinions of qualified human judges in making decisions about admission to special programs" (p. 181).

#### Gifted Student Characteristics

Various characteristics of giftedness have been reported in the literature, including outstanding knowledge, memory, creativity, motivation, language, and leadership skills. Another characteristic of giftedness is the person's unusual talent in any of a variety of areas valued by their particular culture, such as reading, mathematics,

art, and/or music. The following is a summary of the literature on characteristics of gifted individuals. Some of these (e.g., task commitment) have consistently emerged in the literature, whereas others (e.g., advanced reading) have been associated with some forms of giftedness but are not always displayed or have not been empirically validated.

Self Concept. A review of the literature by Feldhusen and Kolloff (1981) indicated that although there was mixed evidence, it appeared that gifted youth have a higher self-concept than youth of average ability. However, although self-concept is positively related to learning (Bloom, 1976; Brookover, Peterson, & Thomas, 1962) other factors may play an important role in gifted cognition. For example, a study by Weed, Ryan, and Day (1990) found that high-IQ fourth grade children with high self-concept initially showed advantages in new memory tasks, but with increasing experience, the influence of this factor diminished in favor of cognitive strategies and information-processing variables.

Information-processing and Insight. Some research indicates that gifted children can be distinguished from their non-gifted peers by their advanced information-processing competencies (Shore & Kanevsky, 1993). They have been reported to be more adept at using relevant information

for problem solving, and to spend more time and be more careful in problem analysis. The aforementioned characteristics were confirmed by Davidson (1986) who investigated performance on mathematical insight problems, analyzing the cognitive components of insight and knowledge acquisition. She identified "insight" as a variable particularly critical to giftedness. She proposed three kinds of insight: selective encoding, which relates to separating relevant from irrelevant information; selective combination, which involves putting the relevant parts in the correct manner; and selective comparison, which involves relating these parts to information already stored in memory. However, the above research on information-processing and use of strategies has thus far not provided a clear picture, as some studies have reported contradictory findings (Perleth, Lehwald, & Browder, 1993).

Memory. Recognition-memory studies suggest that gifted children may have more efficient memory processes than do non-gifted children. In such studies, children are shown a set of digits and then asked whether a digit subsequently displayed belonged to the original data set. Children with high IQs have been found to be less affected by increases in memory set size than children with average IQs (Keating & Bobbitt, 1978).

Children with high IQs have also been found to surpass other children their age in the speed with which they retrieve familiar semantic information from long-term memory (Keating & Bobbitt, 1978; Peck & Borkowski, 1983). However, some evidence suggests that memory efficiency concerning retrieval processes cannot be associated exclusively with differences in the speed of information processing (Brewer, 1987). The superiority in cognitive efficiency may be caused by greater attention, better organization of the knowledge base, more efficient thinking strategies, greater motivation, longer and more intensive practice, or the complex interaction of all these components.

Knowledge. Some investigators have suggested that gifted performance results from possession of more and better-organized knowledge rather than from greater processing capacity or proficiency (Butterfield, Nielsen, Tange, & Richardson, 1985; Holzman, Pellegrino, & Glaser, 1983; Muir-Broadbent & Bjorklund, 1990). A study by Holzman et al. (1983) found that the higher performance of gifted individuals remained accurate across problems involving various arithmetic operations, but non-gifted individuals had more difficulty with some types of operations than with others. Further, the different performance between the two groups was not significantly greater for problems that



required greater memory, leading the researchers to explain the results in terms of differences in knowledge rather than memory capacity.

A study by Butterfield et al. (1985) on problems involving letter series found similar results. The findings indicated that gifted students did not differ from the non-gifted students in their use of knowledge and memory, but rather gifted children displayed a greater amount of knowledge. However, unlike the Holzman et al. study, Butterfield et al. found that gifted children had a more effective memory. Results of a study by Muir-Broadbent and Bjorklund (1990) also supported the idea that the knowledge base in gifted children is a key characteristic that differentiates them from non-gifted students. Findings indicated that gifted children had a more adult-like knowledge base than their non-gifted peers, primarily in the reproduction time of words of the same categories.

Motivation. High levels of motivation are often found in adults who have accomplished outstanding achievements. In a follow-up study of Terman's (1925) elementary school sample, the high-IQ children were found to be striving toward success (Burks, Jensen, & Terman, 1930). In an extensive review of the literature on achievement-related motives and behavior by Spence and Helmreich (1983),

ambition and drive to achieve were found to be crucial in the successful attainment of outcomes.

Curiosity. A characteristic related to motivation is curiosity. According to Berg and Sternberg (1985) curiosity is an integral part of giftedness. Research (Lehwald, 1990) has indicated that curious children use their exploratory skills more than less curious children. Such research has also found that curious children score higher on IQ tests than less curious children.

Language. There is some evidence to suggest that gifted children differ from their peers regarding language development. Research by Robinson, Dale, and Landesman (1990) on linguistically precocious children found that the children obtained consistently high verbal scores and showed good short term memory on the Stanford-Binet for young children. Measured intelligence has long been linked to language and vocabulary skills (Terman, 1925).

Reading. The role of intelligence and learning to read is unclear (Perleth, Lehwald, & Browder, 1993). Although there is correlation between IQ and reading, other factors such as social class, personality factors, and mental adjustment may affect learning to read (Freeman, 1979). Furthermore, learning to read is not a necessary requirement of giftedness, as there are many gifted students who are

also learning disabled in reading (Yewchuk & Lupart, 1993). Nevertheless, gifted children are often not only good at reading, but they seem to enjoy it. A study of the background characteristics of 456 children in a summer program for the gifted (Cox, 1977) indicated that reading was the free-time activity most characteristic of such children. However, some other interests reported included art, music, dramatics, science projects, collecting, outdoor activities, creative writing, and sports.

Artistic Abilities. A study by Scott (1988) analyzed personality traits, values, and selected backgrounds of high school artistically gifted, academically talented, and average students. Artistically gifted students were found to be more detached, critical, reserved, liberal, experimenting, free-thinking, and innovative. The artistically talented were also found to be more self-opinionated, skeptical, and questioning than the academically talented group; and more forthright, natural, and unpretentious than the average students.

Some research has found that artistically gifted children have outstanding concentration and are intrinsically motivated (Golomb, 1992; Richardson, 1991). Research also suggests that a key indicator of giftedness in drawing is the ability to draw real-like drawings at an

early age (Golomb, 1992). Numerous well-known artists were known to have drawings with advanced realism at an early age, including Klee, Lautrec, and Picasso (Pariser, 1991).

The relationship between artistic giftedness and measured intelligence, however, has not been established (Winner & Martino, 1993). There is no theoretical reason for such a relationship, however, because the skills typically measured in IQ tests are verbal, logical, and mathematical, whereas those needed in art are visual and spacial in nature (Gardner, 1983).

Musical Abilities. Research indicates that musically gifted children show an interest in musical sounds at an early age, demonstrate outstanding abilities in composing and improvising, and have an unusual capacity for representing musical relations in a variety of ways (Winner & Martino, 1993). They have an outstanding capacity for concentration and self-discipline (Feldman & Goldsmith, 1986). Musically gifted children have also been found to imitate a song after only one exposure and to learn familiar themes rapidly (Miller, 1989). However, as with art, there appears to be no relationship between giftedness in music and IQ (Winner & Marino, 1993). (This is not to say that one is necessarily needed.)

Mathematics. Mathematically gifted children have been

found to be different from average students by their higher nonverbal reasoning skills and outstanding spatial and memory skills (Benbow & Minor, 1990). They have been found to have better skills in translating verbal problems into equations, problem representation, and manipulation in working memory (Dark & Benbow, 1990; 1991). Some research has suggested that mathematically gifted children are differentiated from those with less talent by qualitative differences in cognitive processes (Marjoram & Nelson, 1985). However, this conclusion is relatively indefinite (Wieczerkowski & Prado, 1993). According to Krutetski (1976), cognitive characteristics such as ability for spacial concepts, memory for symbols and numbers, and ability to visualize abstract relationships are not necessary for mathematical aptitude. Acquisition, application, and extension of knowledge as well as the effective use of problem-solving strategies appear to have more of an influence on mathematic talent.

Leadership. Outstanding leadership is usually considered a result of gifted social cognition and moral reasoning which is beneficial to others (Freeman, 1993). According to Gardner (1983), religious and political leaders (e.g., Mahatma Gandhi and Lyndon Johnson) have highly developed forms of interpersonal intelligence. However, the

research into leadership as it pertains to giftedness is scant. According to Gallagher (1985) it is difficult to observe leadership in gifted students, because, as students, they have little opportunity to use it.

Creativity. Creativity has been proposed as a characteristic of most gifted people (Renzulli, 1978; Torrance, 1979). Reviews of the research on creativity tests and longitudinal studies (Cramond, 1993; Torrance, 1979) have suggested that creativity testing conducted in high school predicts high-level creative production in adult life. However, some scholars believe there is a significant difference between high-IQ students and creatively gifted students in their achievement behavior (Perleth, Sierwald, & Heller, 1993).

In another review of the research, Tannenbaum (1983) found that IQ and divergent thinking (a form of creativity) were only partly distinguishable; there was some independence and some similarity. Although there is a relationship between tests of divergent thinking and creativity (Guilford, 1967), Renzulli (1986) cautions that research on the predictive validity of such tests on real-world creative production has been limited. However, the most recent longitudinal study in this area to date (Torrance & Wu, 1981) did find that highly creative

individuals excelled over high-IQ individuals in adult creative achievement. Furthermore, a review of all the longitudinal studies on creativity by Cramond (1993) concluded that the Torrance Tests predicted adult creative achievement better than IQ scores, secondary school grades, and peer nominations.

Task Commitment. According to Renzulli (1978), "one of the key ingredients that has characterized the work of gifted persons is the ability to involve oneself totally in a problem or area for an extended period of time" (p. 183). A study conducted by Roe (1952) of the characteristics of 64 prominent scientists found that all of the subjects had a high level of commitment to their job. An extensive review of research by Nicholas (1972) supported the findings reported by Roe (1952).

More recently, a study by Cox, Daniel, and Boston (1985) investigated the opinions of MacArthur Fellows: top anthropologists, artists, athletes, biologists, chemists, educators, historians, lawyers, mathematicians, psychologists, writers and other scholars who attained outstanding achievements. Results indicated their successes resulted more from determination and practice than from natural, inborn talent.

Longitudinal Studies of Gifted Individuals. Some

longitudinal studies have offered insight into the characteristics of highly successful gifted people. One such study was conducted by Terman and Oden (1959). After 30 years of follow-up studies on a population of gifted persons, the authors concluded that ... "the four traits on which [the most and least successful groups] differed most widely were persistence in the accomplishment of ends, integration toward goals, self-confidence, and freedom from inferiority feelings" (p. 148). Another longitudinal study supported Terman and Oden's (1959) findings related to persistence and integration toward goals (Troost, 1991). This study, which began in 1973, collected data on approximately 9000 13th-school year German students to trace the educational and career paths of the subjects. A longitudinal analysis of high achievers (top 10% in grade point average and scholastic aptitude tests) was conducted in science, mathematics, and business. At the age 30, the high achievers were more likely to be working longer and harder at their jobs.

Some longitudinal studies have investigated factors related to outstanding creative accomplishments. In a longitudinal study of creative achievement, Torrance (1993) followed seniors from a high school noted for enrolling a large number of gifted students. Predictors included the



Torrance Test of Creative Thinking, IQ scores, and achievement scores. Findings indicated that there was a slight correlation between the Torrance Test and creative achievement later in life. Factors such as love of work, persistence, high energy level, diverse experiences, and a sense of mission dominated over creativity ability, measured intelligence, and school achievement.

Greater support for creativity measures was provided in the longitudinal study by Torrance and Wu (1981). This study investigated the adult creative achievements of elementary school children classified as high-IQ and highly creative. On all criteria of adult creative achievement (e.g., number of achievements and quality of achievements), the highly creative group surpassed the high-IQ group and equaled those who were both high-IQ and highly creative. They also attained the same number of degrees, honors, and academic attainments as the high-IQ group.

Some longitudinal studies have investigated the characteristics of gifted artists. A 14-year longitudinal study of musically precocious children (Hendrickson, 1986) investigated their characteristics as compared to a control group of musically-abled children with outstanding general abilities. During the first ten years of growth, the precocious group was found to have better musical memory and

psychomotor control, and was more motivated toward goals of excellence than the control group. In a 10-year longitudinal study of young talented artists (Getzels & Csikszentmihalyi, 1976), findings indicated that perseverance, aesthetic ability, and originality were good predictors of outstanding performance in the visual arts. Data were analyzed after 7 years and again after 18 years (Csikszentmihalyi, 1990). After 7 years, problem finding (exploration of options before deciding on a problem to work on) emerged as the best predictor of success in art. At the 18-year follow-up, problem finding played a smaller predictive role in attaining recognition in the world of art. Instead, social skills and other components of practical intelligence, such as networking, took priority.

As can be seen by the research covered so far, there is no one type of giftedness. Rather, in keeping with Gardner's (1983) theory of multiple intelligence and Marland's (1972) definition of giftedness, there appears to be a variety of talents and characteristics in giftedness. In an attempt to establish a typology of giftedness, the Munich Longitudinal Study (Perleth, Sierwald, & Heller, 1993) collected data from 26,000 gifted students covering six cohorts from 1986-1988. The study used a multidimensional concept of giftedness in which achievement

behavior was seen as the product of specific predictors: giftedness, personality, and environment. Five factors were found to be independent dimensions of giftedness: intelligence, creativity, psychomotor ability/practical intelligence, social competence, and musical ability. Significant differences were found between gifted and average ability students in each domain of giftedness. However, attempts to establish a giftedness typology on the basis of the data were not successful. The findings lend support to the argument against diagnosing giftedness along single dimensions.

In summary, the available research has found various characteristics of giftedness. Some of these, such as task commitment and motivation, appear to transcend all areas. However, although providing useful information about the characteristics of people identified as gifted, conclusions from studies of giftedness characteristics may be somewhat limited for several reasons. First, the conclusions from most research on characteristics of gifted students are derived from intact groups already identified as gifted which were pre-selected and characterized, for example, by high IQ scores (e.g., Terman, 1925). Thus, characteristics identified this way may be related more to the selection methodology than to actual attributes of giftedness.

Second, comparable information on un-selected control groups are for the most part missing (Trost, 1993). Third, and most importantly as it relates to this study, there have been few studies investigating the characteristics of Hispanic-American and/or LEP gifted students. To date, there has been only one longitudinal study on these students (Frazier, 1992), and findings are not yet complete.

#### Cognition and Learning Characteristics of Hispanic Students

Hispanic students may have unique socio-cultural and linguistic characteristics (Fernandez & Nielson, 1986) as well as learning style differences (Dunn & Griggs, 1990) that affect their learning. Lack of knowledge about these learning characteristics may prevent the appropriate identification of giftedness (Bermúdez & Rakow, 1990).

According to a review of research on learning styles of various ethnic groups (Dunn & Griggs, 1990), Hispanic students display different patterns of strategies for learning. Mexican-Americans and Puerto Ricans seem to require a high degree of structure. Mexican-American students seem to prefer working alone less than Whites. Mexican-Americans also require more variety in routines than most other ethnic groups. The research, however, indicates also that there are many within-group differences among Hispanics.

Gifted Hispanic students also have learning styles that are unique. In a study by Ewing and Yong (1993), gifted Mexican-American students were found to be parent motivated and preferred an informal seating arrangement. They did not prefer temperature (warm environment) nor the auditory modality. In contradiction with the above review on average Hispanic students, the gifted Mexican-American students in this study did not like structure. Similar to other ethnic groups of gifted students in the study (Chinese-American and Blacks), they were found to be responsible and motivated, and they preferred the kinesthetic modality.

Another learning characteristic of Hispanic students (and LEP students in general) that may positively influence their achievement is their bilingualism (assuming they are able to become bilingual). Research indicates that bilingual students possess greater cognitive abilities than monolinguals. Such research indicates that a bilingual has better metalinguistic awareness (Cummins, 1976), more cognitive flexibility, and can switch between languages in order to approach the problem from different perspectives (Diaz, 1990; Hakuta & Diaz, 1985). The bilingual child may develop verbally mediative mental processes that are more efficient and precocious in cognitive tasks, due to the simultaneous experience with two languages that increases

reliance on verbal mediation (Diaz, 1990). The child's "objectification of language" may also enhance "higher levels of abstract and symbolic thinking" (Diaz, 1990, p. 97).

In a longitudinal study by Hakuta (1987), significantly positive results were found between non-verbal intelligence measures and degree of bilingualism in mainland Puerto Rican children. Correlations were more consistent in kindergarten and first grade, with attenuation in the higher grades. Early bilingualism predicted later cognitive ability. Metalinguistic awareness measures showed a consistently strong and positive relationship with Spanish, but there was little evidence showing a relationship with bilingualism.

A recent study by Gonzalez (1994) also supported the positive influence of native language on Hispanic children's learning. Findings revealed that bilingual children construct universal non-verbal and semantic representations influenced by culture and language. Tests of non-verbal intelligence and oral language proficiency underestimated their development of language and concepts, as they performed at or above their chronological-age levels in verbal and non-verbal classification tasks. Bilingual children formed non-verbal concepts at higher levels than verbal concepts, and they attained higher conceptual

developmental levels in general. According to the author, the findings support the benefits of bilingualism on cognitive development, as bilingual children construct one universal representational system for nonverbal concepts that are parallel in both languages, and two culturally and linguistically bound representational systems for verbal concepts.

Bilingual students also reportedly make greater gains in school achievement (Cummins, 1981; Fernandez & Nielson, 1986). A study of background characteristics of language factors on scholastic achievement (Fernandez & Nielsen, 1986) found that for both Hispanic bilinguals and White bilinguals, proficiency in both English and the other language is positively related to school achievement. As expected, English proficiency was correlated with scholastic success. However, the study also found that proficiency in Spanish had a positive effect on academic achievement. The researchers explained this in terms of the beneficial influence of home language proficiency on general English verbal ability, as supported in other research (e.g., Cummins, 1981).

Apart from the advantageous effects of bilingualism on cognition and their unique learning styles, little information has been contributed to the body of knowledge

regarding gifted Hispanic LEP students. Few empirical studies have been conducted on the characteristics of these students (e.g., Bernal, 1974). Much of the scant research available has been conducted in the areas of curriculum, general identification efforts, and behavior checklists (Frazier, 1993). The lack of research has some negative implications for the identification of gifted Hispanic LEP students because, as Sapon-Shevin (1994) puts it, "the characteristics of giftedness, possessed exclusively by an identifiable group of students, only exist within a system that, for a variety of reasons, wishes to measure, select, and sort students in this manner" (p. 18).

#### Identification of Gifted Students

The identification of students for gifted programs is a process that is connected to the policies and the established practices of a particular school district and state as well as guidelines from funding sources. Definitions of giftedness are found in the policies of educational agencies (Hoge, 1988). (For example, in Florida, the definition of giftedness is found in State Education Board Rules [Florida Department of Education, 1993]). These policies govern the assessment and eligibility requirements for gifted programs. Unfortunately, the screening and identification policies for



gifted eligibility often rely on norms that may not correspond with the characteristics of Hispanic LEP students (Bermúdez, Rakow, Márquez, & Sawyer, 1991).

A variety of assessment methods are used to identify gifted learners, including IQ tests, academic achievement assessments, creativity measures, and teacher nomination scales (Adderholdt-Elliott et al., 1991; Yarborough & Johnson, 1983). As discussed earlier, IQ tests propose to measure intelligence. Academic achievement tests measure the student's current performance in particular subject areas; usually reading, math, and language. Measures of academic achievement (e.g., Stanford Achievement Test) are generally standardized tests administered in English, although some tests are available in Spanish and in a few other languages. Creativity tests (e.g., Torrance, 1975) propose to measure creative behaviors, such as production of ideas, approaches to a problem, and originality. Teacher nomination scales are typically checklists in which the teacher rates a student on the various characteristics being measured (e.g., creativity, academic progress, etc.). Results from these nomination scales usually determine if the testing process should continue for possible placement into gifted programs.

Problems in the identification of gifted students can

occur at different points within the identification process. According to Feldhusen, Asher, and Hoover (1984), the validity of the identification procedure must be determined within the entire identification process, including within the definition of program goals, the teacher nominations, and the assessment procedures.

The program goals will set the direction for the entire identification process (Feldhusen et al., 1984). These goals are established to address the needs of the gifted student, who meets the definition of gifted under state policy. Unfortunately, most definitions of giftedness in school settings begin with a general statement of the gifted construct which is not precise in nature (Hoge, 1988).

The use of teacher nominations for gifted programs is one of the most widely used methods to identify gifted students (Hoge & Cudmore, 1986) and often marks the initial step in the identification process. Unfortunately, few published nomination scales offer evidence of validity and reliability, which raises concerns about the psychometric properties of these scales (Hagen, 1980). Although some studies point to their usefulness (Ashman & Vukelich, 1983; Borland, 1979), little research has been conducted with Hispanic LEP students in this area.

The assessment procedures for gifted programs are often

based on criteria of gifted potential that is defined by the selection instrument(s), such as IQ and achievement tests (Hoge, 1988). However, there is little correlation between the characteristics found in official definitions of giftedness (e.g., Marland, 1972) and the psychological construct represented by the selection instruments (Hoge, 1988).

Most states use the aforementioned assessment strategies (IQ, achievement, and teacher nomination measures) to determine eligibility for gifted programs. A study of state practices (Adderholdt-Elliott et al., 1991) found that teacher checklists and group achievement tests are used most often (80% of states) followed by intelligence tests (70%) in the identification of gifted students.

In Florida, a student is eligible for the gifted program if the student demonstrates either A. or B. as specified below:

- A.
  1. Need for a special program,
  2. A majority of characteristics of gifted students according to a standard scale or checklist, and
  3. Superior intellectual development as measured by an intelligence quotient of two (2) standard deviations or more above the mean on

an individually administered standardized test of intelligence.

- B. The student is a member of an under-represented group and meets the criteria specified in an approved school district plan for increasing the participation of under-represented groups in programs for gifted students. (Florida Department of Education, 1993, p. 129)

DCPS adheres to the guidelines established by the State of Florida. Part B. of the eligibility criteria is outlined in the district's Procedures for Identifying Students for the Gifted Program under Plan B (DCPS, 1994). The Plan specifies that if the student does not meet the requirements as stated in A. 1-3 above, a matrix scoring system is used. (see Appendix A.) Student scores are compiled in the areas of measured intellectual abilities (via an IQ test), reading or math achievement (e.g., Stanford Achievement Test [SAT]), creativity (i.e., Torrance Test of Creativity, 1975), and teacher judgement (via a teacher rating scale). The student can receive from a high of 4 points to a low of 1 point in each category corresponding to the number of points obtained in the tests used to measure the respective category. Eligibility requires a total score of 9 points or higher in three of the four categories. Teachers complete the Gifted

Programs - Rating Scales on all students who appear to be possible candidates (see Appendix B). Students may earn up to 156 points on this scale. Students with less than a score 79 are eliminated from the process.

#### Assessment of LEP Students

Generally, the methods used to assess LEP students are similar to those used for non-LEP students (e.g., use of IQ tests). These methods, however, have not been proven effective in identifying LEP students for gifted programs (Barkan & Bernal, 1991; Bermúdez et al., 1991; Bernal, 1976; Kitano, 1991; Melesky, 1985). Factors related to the referral process, culture, test construction and standardization, second language acquisition, and the programs offered have been proposed as possible explanations for the discrepancies in identification (Barkan & Bernal, 1991; Bermúdez & Rakow, 1990; Bermúdez et al., 1991; Bernal, 1976; Boyle, 1987; Gonzalez & Yawkey, 1993; Kitano, 1991; Melesky, 1985; Saccuzzo et al., 1994).

The importance of the referral process cannot be overestimated. Research into the referral of students for possible special education placement indicates that 60% to 73% of students referred, not only get evaluated, but get placed (Algozzine, Christenson, & Ysseldyke, 1982; Furlong, 1988). A related issue that is well documented is the over-

representation of minority children (including Hispanics and LEPs) in special education (excluding gifted programs), particularly in classes for the mildly mentally handicapped (Gersten & Woodward, 1994; Mercer, 1973; Reschly, 1988).

Paradoxically, a completely different picture takes place in gifted programs. The over-representation of minority children in special education does not exist in gifted programs. However, there does appear to be a connection between referrals for testing and gifted placements. In a study of parents of children in gifted programs in Dade County (Scott, Perou, Urbano, Hogan, & Gold, 1992), the percentage of White parents who requested testing for possible gifted placement for their children was significantly greater than for Hispanic and Black parents. In another study (Saccuzzo et al., 1994), findings indicated that culturally and linguistically diverse students were significantly under-represented in teacher referrals for gifted testing.

Once referred, however, other factors such as the instruments used for assessment could interfere with the identification. The LEP student may have learning experiences related to his or her culture which may be different from those measured by the instruments typically used in assessment (Bernal, 1976; Melesky, 1985). Such

instruments are usually constructed with a certain culturally, linguistically-loaded framework which is used as the norm. These instruments are typically standardized on students whose language and cultural backgrounds are different from that of the LEP student (Bernal, 1976; Melesky, 1985; Omark & Watson, 1983).

According to Gonzalez and Yawkey (1993), the psychometric model commonly used to assess students assumes the presence of innate abilities and traits related to maturational and neurological factors that can be measured quantitatively. When this model is used with LEP students, standardized tests are adapted using translations or developing norms for minority groups. No external factors (e.g., the educator's language and cultural background, and his or her cultural belief systems and perceptions) are considered within the model. Defenders of the psychometric model have attempted to demonstrate an innate inferiority of culturally and linguistically different students that prevents higher performance levels (Jensen, 1969; Murray & Herrnstein, 1994). They propose that very little can be done to improve educational factors, because the student's performance is a result of internal factors (Murray & Herrnstein, 1994).

Gonzalez and Yawkey (1993) have suggested the

development of cultural sensitivity and awareness of educators' attitudinal biases when reaching diagnostic decisions. They propose the adoption of a developmental model of assessment for culturally and linguistically diverse students in which individual potential can be actualized or expressed differently in various sociocultural environments. The developmental model uses primarily qualitative assessment methods that focus on the process of the student's actions. This model, though showing some potential for improving the assessment of LEP students, is not followed by most school districts in the identification of gifted students (Adderholdt-Elliot et al., 1991; Yarborough & Johnson, 1983).

A major part of the assessment process is the evaluation of the student by a school psychologist trained in psychometrics. According to Figueroa (1989), school psychologists are the recipients of an "inadequate technology and knowledge base" when it comes down to testing language-minority students. (p. 145) There are four options available when testing LEP students: using interpreters, translating the tests, using tests that are norm referenced in the student's native language, or using a bilingual psychologist (Figueroa, 1989).

The use of interpreters is almost completely barren of



research regarding the impact of this procedure on validity (Figueroa, Sandoval, & Merino, 1984). Furthermore, few states have comprehensive training programs for interpreters (Salend & Fradd, 1986).

Although translated tests add to the repertoire of methods to assess LEP students, translating the psychometric properties from one language to another is a questionable procedure (Barona & de Barona, 1987; Wilen & Sweeting, 1986) because these tests frequently use the same norms provided with the original English version (Barona & de Barona, 1987). Further, the level of difficulty of the items in one language may differ from the other language, making the translated test invalid (Figueroa, 1989). For example, the Spanish translation for "edifice" (a less common word for "building") is "edificio," which has a much more common usage and a lower difficulty level than in English.

For Hispanic students, some psychological tests are available in Spanish, such as the Mexico City Escala de Inteligencia para Nivel Escolar Wechsler (WISC-RM) (Gomez-Palacio, Padilla, & Roll, 1983). These tests, however, are for monolingual children who have little or no exposure to English. Their validity for LEP students who are immersed in a predominantly English-immersion educational system (including those in bilingual education programs) is highly

questionable (Figueroa, 1989). In fact, a study of the diagnostic effectiveness of the Mexico City System of Multicultural Pluralistic Assessment (SOMPA) battery and K-ABC (Rueda, Figueroa, Mercado, & Cardoza, 1984) established that their error rates for U.S. educated Spanish-speakers was unacceptably high. Adequate tests for LEP students in the process of acquiring English proficiency are nonexistent (Figueroa, 1989).

The use of a bilingual psychologist is another option that may be available. Testing by a bilingual psychologist entails the use of translated tests and/or test batteries with versions in English and another language. Unfortunately, the aforementioned validity concerns regarding these tests coupled with the issues of language loss and limited bilingualism in second language learners (Fradd, 1987; Schiff-Myers, 1992) raise serious concerns about testing results. Furthermore, bilingual psychologists may lack the skills needed to conduct bilingual assessments, including skills related to proficiency in the second language (e.g., Spanish), knowledge about the student's culture, the schooling of bilingual/LEP students, and knowledge about which tests to use (Figueroa, 1989).

#### Effects of Programs on Learning and Identification.

The type of program, curriculum, and instruction provided to

LEP students will also affect their assessment, because their performance is related to their educational experiences and how they are taught. It typically takes 5 to 7 years for second language learners to attain cognitive/academic language proficiency (CALP) (Collier, 1989; Cummins, 1984; Ramirez, 1992). It generally takes them this long to perform at the 50th percentile on nationally standardized tests in reading, social studies, and science (Collier, 1989). To educate LEP students, districts often rely on classes of English for Speakers of Other Languages (ESOL), a program used to help LEP students learn English (Mora, 1993). However, LEP students are often exited prematurely from ESOL or other bilingual education programs before they have obtained the necessary skills to compete in an English-only curriculum (Cummins, 1983).

The amount of support the student receives in the native language also impacts the LEP student's learning. A strong foundation in the native language generally contributes to a higher degree of English language proficiency (Cummins, 1979; Cummins, 1981; Ramirez, 1992). Competence in the second language may be partially a function of the kind of competence already developed in the native language at the moment that exposure to the second language begins (Cummins, 1979). Furthermore, bilingualism

positively influences both linguistic and cognitive development (Cummins, 1981; Cummins, 1983). However, second language learners need to attain threshold levels of linguistic competence in the home language to allow the beneficial aspects of bilingualism to influence their cognitive/academic functioning (Cummins, 1979). According to a recent congressionally mandated study (Ramirez, 1992), the academic achievement in English of LEP students who received more home language instruction (e.g., 4-6 years) was generally higher than that of those who received less (e.g., 1-3 years) home language instruction and more English. Unfortunately, districts often provide LEP students with little or no instruction through their native language in academic subjects (Mora, 1993).

The LEP student's learning of a second language before competency in the first language is fully developed, may result in arrested development or loss of proficiency in the native language (Schiff-Myers, 1992) or limited bilingualism (Fradd, 1987), especially in younger children (Wong Fillmore, 1991). Insufficient reinforcement through the native language while learning a second language may place a student in an academic/cognitive disadvantage (Fradd, 1987). Passing the LEP student through the identification process during this second language acquisition period may result in

ineligibility for the gifted program. Moreover, teachers may not even consider nominating these students because their performance may not be outstanding in the English-only curriculum due to their limited CALP. Teachers may not be familiar with LEP students characteristics that could mask their giftedness (Márquez et al., 1992). It is only after these students learn English and become acculturated that they are typically considered for gifted programs (Bernal, 1981).

Another factor affecting the identification of LEP gifted students is the established goals and curriculum of the gifted program. Most gifted programs provide the curriculum in English (Bermúdez et al., 1991). Thus, the teacher could well base his or her decision to nominate the LEP student on how well the student performs (or will perform) in English, the most probable language of instruction.

Attempts to Improve the Identification of Language-minority Gifted Students. Various suggestions have been offered to improve the identification of ethnic and language-minority gifted students, including use of creativity tests (Torrance, 1973), non-standardized methods of assessments (Melesky, 1985), non-verbal tests (Bernal & DeAvila, 1976; Melesky, 1985), alternative tests of

intelligence (Saccuzzo et al., 1994), case studies (Renzulli & Smith, 1977), criteria vis a vis community perceptions of LEP gifted students (Márquez et al., 1992), and behavior scales which reflect the views of giftedness by the child's culture (Bernal, 1976). However, efforts to improve the identification of these students have resulted in little gains (Hunsaker, 1994).

In a recent study, Saccuzzo et al. (1994) investigated a model used for identifying gifted ethnic minority students. This model utilized a multifaceted approach to identification which included teacher nominations, the use of the Raven Progressive Matrices as the criterion measure of intellectual ability, and a monitoring procedure. Data on 35,000 students indicated that the model increased the number and proportion of under-represented students in gifted programs. However, when the study was initiated, it was found that there was significant under-representation by ethnic minority groups during the nomination process. As a result, a monitoring system was implemented to increase the nominations of these groups. The WISC-R was used as the criteria of measures between 1984-1990, and the Raven between 1990-1993. Although the Raven was found to be more effective than the WISC-R in identifying gifted minority students, it is possible that the improvement was due to the

increase in teachers' nominations that resulted from the monitoring system.

### Effectiveness of Teacher Nominations in the Identification of Gifted Students

Early studies of the effectiveness of teacher nominations (Gear, 1976; Jacobs, 1971; Pagnato & Birch, 1959) indicated that teachers were relatively inaccurate in their identification of gifted students. However, in these studies, teachers were requested to make global, non-directive judgements of their students' abilities. More current research suggests that teacher accuracy can be improved through the use of behavioral checklists formulated from lists of gifted student characteristics (Ashman & Vukelich, 1983; Borland, 1979). According to a detailed literature review on teacher nomination measures by Hoge and Cudmore (1986), there is little empirical support for the negative evaluations of these measures by the earlier research. However, the authors expressed concerns about their construct validity, noting the lack of a formal, explicit definition of the giftedness construct.

In an effort to investigate the accuracy of teacher nominations, Denton and Postlethwaite (1984) looked into teacher-based identification of gifted students in particular school subjects, rather than of those with high

general ability. Teachers in four subject areas (math, physics, English, and French) in Oxfordshire, England nominated the top 5% and 10% of secondary students in their class. Subject specific identification was found to be more effective than previous research which used identification of students with high general ability. The influence of social class, neatness, and sex did not appear to have a significant effect on teacher nominations. However, the identification strategies were found to be biased because the teachers were not always familiar with their students. Differences in the utilization of the nomination checklist were not related to the type of school (large, small, single sex, and coeducational) but rather to the individual teacher. The rate at which clues to the students' ability emerged in the classroom depended on the teaching style used. This finding supports a study by DiStefano (1970) in which teachers perceived students of their own cognitive style more favorably and gave better grades to these students than to students whose style was different from the teachers'.

Effectiveness of the nomination may be influenced by the teacher's views about classroom behaviors which could be related to cultural differences. Teachers' perceptions of the behaviors displayed (or not displayed) by some students



may interfere with the nomination of the students (Reichert et al., 1982), including those who are Hispanic and LEP (Bermúdez & Rakow, 1990). For example, the ability to work independently, a skill viewed to be desirable by teachers, may be in conflict with the child's learning preference which may be related to his or her cultural background (Dunn & Griggs, 1990). Thus, the teacher's culture-bound perception may ultimately influence the decision to nominate the student for the gifted program.

Teachers' personal beliefs about gifted student characteristics may also influence the results of nomination ratings. These beliefs may conflict with existing research on gifted characteristics (Reichert et al., 1982) as well as with the available research on gifted Hispanic LEP student characteristics (Bernal, 1974; Márquez et al., 1992). According to Reichert et al. (1982), some educators erroneously view precocity, high verbal abilities, and large attention span as prerequisites for all gifted students. The degree to which teachers hold to these views may determine how the students are rated (Wolfle & Southern, 1989). If teachers perceive certain characteristics as prerequisites for giftedness, they may rate items that relate to their perceptions higher while giving less attention to the remainder of the characteristics. The

result may be a biased nomination that is geared toward certain types of giftedness (Wolfe & Southern, 1989).

#### Effect of Teacher Ethnicity on Behavior Ratings

Some studies have investigated the influence of the teacher's ethnicity on special education (excluding gifted) referral decisions (Tobias, Cole, Zibrin, & Bodlakova, 1982; Tobias, Zibrin, & Menell, 1983). Tobias et al. (1982) found that teachers rated students from ethnic backgrounds other than their own as more appropriate for special education placement. However, in a similar study (Tobias et al., 1983) these results could not be replicated when teaching level was controlled.

In a study of teachers' perceptions of difficult-to-teach (DTT) students (Bahr, Fuchs, Stecker, & Fuchs, 1991), Black and White teachers rated DTT Black students significantly more appropriate for a psychological evaluation referral than White DTT students. However, the researchers explained the basis for the differential perception as having to do with the academic performance of the two groups and not race.

#### Stereotypic Perceptions

A stereotype is set of beliefs about the personal attributes of a social group (Bar-Tal, Raviv, & Arad, 1989). Several studies have investigated stereotypes by

fictitiously manipulating the ethnic background of a hypothetical individual to form an impression about the individual. In a series of three studies, Guttman and Bartal (1982) investigated the effect of stereotypic perceptions on teacher evaluations and expectations of students. In the first study, teachers responded in stereotypic manner when they were presented only with information regarding students' ethnic origin and sex. In the second study, teachers' stereotypic perception influenced their grading practices. The third study indicated familiarity with students' behavior had an overriding effect on teachers' stereotypic impressions based on students' group membership. The researchers concluded that teachers differentially evaluated individuals on the basis of ethnic origin; however, personal contact and knowledge about the person could override stereotypic perceptions.

Similar results regarding the effect of ethnic stereotypic impressions have been found in studies of teacher referrals for special education (excluding gifted). In a study by Zucker and Prieto (1977), 260 special education teachers were presented with information on a fictitious 8-year-old student suspected of being Educable Mentally Handicapped (EMH). Teachers were asked to rate the

student's appropriateness for special education placement. One-half of the teachers were provided with information which indicated that the student was male. The other half was given information which indicated the student was female. Similarly, one-half of the teachers were given a description of the student as being White, while the other half read that the student was Hispanic. Findings indicated that significantly more teachers rated the student appropriate for special education when the student was described as Hispanic. The student's gender, however, did not affect the ratings.

A similar study by Prieto and Zucker (1981) supported these findings. One-hundred eighty regular and special education teachers were asked to decide the appropriateness of special education for a male student. The student was described as being either White or Hispanic. Findings indicated that more teachers rated the student appropriately for special education placement when the student was described as Hispanic.

In another study, Bar-Tal et al. (1989) investigated whether individuals changed their beliefs in light of new information. Student-teachers were given different information about a pupil's ability level and ethnic origin. The student-teachers were asked to form impressions, to

evaluate the student's achievement, and to make attributions regarding his or her predicted academic outcome. The results showed that the student-teachers formed impressions of intellectual characteristics and evaluated a pupil's academic performance on the basis of the information about the pupil's ability. However, the impressions of the social characteristics and attributions were determined jointly on the basis of the information about the pupil's ability and his or her ethnic origin. Stereotypic perceptions were not formed when the only information provided was the student's ethnic origin.

Similarly, a study by Guskin, Peng, and Simon (1992) examined how teachers' judgments, expectancies, and decisions were influenced by hypothetical students' patterns of giftedness and demographic background (e.g., race). Findings indicated differential predications of success, recommendations for programming, and trait ratings for those with different patterns of giftedness. Differences in children's race and social class background modified teachers' reactions to ability when the pattern was inconsistent with stereotypes (e.g., a black athlete). The authors concluded that teachers could be sensitive to Gardner's (1983) multiple intelligences if they are exposed to a sufficient amount of information about the student.

## Effect of Student Ethnicity on Behavior Ratings

Research has also investigated teacher judgements of actual classroom performance of students from different ethnic groups. In a study by Partenio and Taylor (1985), teachers responded to a four-item rating scale related to current classroom performance, learning potential, and motivation to learn. Results indicated that teachers rated White students higher than those who were Black or Hispanic on every item of the rating instrument. Moderate correlations between IQ and teacher nominations were found. The correlations for White students were slightly higher than those for Black and Hispanic students. IQs were better predictors of teacher ratings than were age, sex, race and the Weight by Height and Physical Dexterity Task measures of the SOMPA. However, sex and physical dexterity added significantly to the predictive accuracy. The researchers offered two possible explanations for the findings related to student ethnicity: (1) that the Wechsler scales are not valid predictors of academic performance for these children, and (2) that the teacher ratings are biased measures of academic performance.

Some have suggested that teacher behavior rating scales could aide in the identification of minority gifted students (Elliott, Argulewicz, & Turco, 1986). Several studies have

investigated the Scales for Rating the Behavioral Characteristics of Superior Students (SRBCSS) (Renzulli et al., 1976), the most widely used giftedness behavior scale, in relation to its effect on various ethnic groups (Argulewicz, Elliot, & Hall, 1982; Elliott et al., 1986). A study by Argulewicz et al. (1982) investigated the behavioral ratings of the SRBCSS on groups of White and Mexican-American gifted students. Teachers rated gifted students' characteristics using four subscales of the SRBCSS (Creativity, Learning, Leadership, and Motivation). Significant ethnicity differences were found on the Learning and Motivation scales of the SRBCSS, with Whites being rated higher. However, there were no significant differences between the groups in the ratings of the Creativity and Leadership scales.

A similar study was conducted by Elliott and Argulewicz (1983) to determine the similarities in the behavioral ratings of developmentally and culturally different gifted children, and whether local norms should be established for the SRBCSS. Teachers rated gifted students using the aforementioned subscales of the SRBCSS (Creativity, Learning, Leadership, and Motivation). The effects of student ethnicity, grade, sex, and socio-economic status (SES) were analyzed and found to significantly influence

teachers' ratings of gifted students. White students from every level of SES were rated slightly higher than Hispanic students on all areas. However, no significant ethnic or SES differences were found in the Creativity Scale of the SRBCSS, lending some support to findings from the aforementioned study by Argulewicz et al. (1982).

In yet another similar study, Elliot et al. (1986) investigated the predictive validity of the SRBCSS with a sample of White and Hispanic gifted students. Results indicated that IQ and achievement test scores for White students were not significantly correlated with the Creativity, Learning, or Motivation scales. However, scores on the Creativity scale accounted for 54% of the variance in the performance of Hispanic students on the SAT Reading Comprehension scale. The authors tentatively concluded that there may value in the use of this scale for the identification of Hispanic students. Further research is needed, however, before definite conclusions can be made regarding this use.

#### Teacher Perceptions of Giftedness

After their extensive review of the literature on the effectiveness of teacher nomination checklists, Hoge and Cudmore (1986) called for the systematic research of perceptual and attitudinal data from teachers. Several



studies have investigated the perceptions of giftedness held by teachers.

A study by Wolfle and Southern (1989) examined traits deemed most important in identifying giftedness in young children, as reported by teachers of preschool and primary grades. Sixty-six teachers responded to a questionnaire listing items in the following categories: cognition, personality, physical, creativity, talent, and social. Results indicated that teacher experience and training made little difference in the characteristics valued, though responses varied based on the age level taught. Cognitive traits were rated highest as indicative of giftedness, though teachers were also cognizant of traits tied to creativity. Preschool teachers valued personality and social development more than teachers of primary grades.

Several other studies have found differences in perceptions based on teacher background. A study by Fryer and Collings (1991) explored the views of creativity of 1028 teachers from 57 schools/colleges in various regions of England, Wales and Northern Ireland. Significant differences were found between the views of male and female teachers, between certain views and the teaching style of respondents, and in relation to subjects taught. Female teachers viewed creativity as more personal (e.g., self

expression), whereas males perceived it in a more objective, impersonal manner (e.g., innovation). Teachers of math, science, and technology perceived creativity more impersonally than those teaching general courses, the arts, and English.

A study on teachers' perception of giftedness by Copenhaver and McIntyre (1992) found significant differences related to grade level taught, experience, and whether teachers had taken courses in gifted education. Eighty-five teachers completed an open-ended questionnaire stating the characteristics that came to their minds. Negative characteristics (e.g., bored, inattentive), independence, and extensive vocabulary were most often listed by elementary teachers. Secondary teachers listed inquisitiveness most. Both groups listed competitive characteristics the least. Negative characteristics listings decreased from teachers with 0 years of experience to teachers with one-two years experience, but increased for teachers with three or more years of experience. Creative characteristics were listed most often by teachers having one or more courses in gifted education. Negative behaviors were listed most by teachers with no courses. Competitive characteristics were listed least by both groups.

A study by Schack and Starko (1990) also found

differentiated perceptions among different types of teachers. This study investigated the criteria preferred by preservice teachers, classroom teachers, and teachers of the gifted. Three-hundred eight subjects from three states completed a questionnaire and indicated their preferences from a list of 18 possible criteria. Overall, the criteria of creativity, learns quickly and easily, initiates own learning, and curiosity were chosen most frequently. The next three preferences were wide-based knowledge, academic talent, and motivation. Criteria preferred by teachers of the gifted were found to be more consistent with theorists' recommendations than were those of either classroom or preservice teachers.

A similar correspondence with theorists' conceptions of giftedness was also found in a study by Singer, Houtz, and Rosenfield (1992) which investigated the characteristics of gifted students as perceived by gifted teachers. Twenty teachers and their principal in an elementary school for gifted students engaged in four rounds of adjective ratings to generate a list of student characteristics associated with sustained academic success in a gifted program. At the end of the four rounds, the top ten characteristics which the subjects identified included: (1) curiosity, (2) abstract reasoning, (3) self-motivation, (4) flexible,

wholistic thought processes, (5) memory, (6) analytical, (7) persistence, (8) intrinsic motivation, (9) self-directedness, and (10) task commitment.

Comparable findings were reported in a study by Awanbor (1991). Two-hundred forty-one pre-service teachers from a university in Nigeria completed a Likert-type questionnaire that measured the perceptions of gifted student characteristics. Three general characteristics from the gifted literature were measured, namely learning characteristics, general behavioral characteristics, and creativity. Results indicated that subjects identified learning characteristics as the principle marker of giftedness, followed by creativity. They viewed originality and curiosity as the critical factors in creativity. The subjects' level of education, age, and sex were not found to have an influence in their perception of the giftedness. According to the author, the findings collaborate to some extent the Western literature on the conception of giftedness (e.g., Renzulli, 1986; Torrance, 1984).

In a study by Busse et al. (1986), each of 434 West German and 446 American high school teachers were asked to nominate one student as highly gifted. The teachers taught foreign language, math/physics, music/art, or native language. These teachers completed a questionnaire, rating

their nominees on 83 characteristics. A factor analysis of the results yielded seven German and five American factors. The factors for the German sample were: (1) achievement-oriented, (2) artistic, (3) dynamic/popular, (4) logical problem solving, (5) precocious/conforming, (6) self-centered/neurotic, and (7) verbally proficient. The factors for the American group were: (1) achievement oriented, (2) creative, (3) dynamic/popular, (4) intelligent, and (5) self-centered/neurotic. The authors concluded that results for the American sample conformed well to Renzulli's (1978) conception of giftedness (i.e., intelligence, creativity, and achievement-oriented). German teachers perceived giftedness mostly along two dimensions, logical/problem solving and verbally proficient. However, the achievement-oriented and creative factors were reflected in both samples, although the German sample expressed a more artistic focus in the creative factor than the American sample.

Similar results were obtained in a study by Guskin, Chao-Ying, and Majd-Jabbari (1988), which examined prospective and experienced teachers' perceptions of giftedness. Subjects included 111 undergraduate education students and 79 graduate students who were experienced teachers. Both groups tended to agree on five categories of

giftedness: analytic or cognitive ability, personality and social skills, creative arts, motor skills, and verbal ability. The researchers concluded that the results supported Gardner's (1983) multiple intelligences. The researchers also concluded that the fact that findings were similar for both groups of subjects suggested either that conceptions about abilities are learned early in life and are insensitive to experience or that experience is consistent with the measured perceptions.

#### Perceptions of Hispanic LEP Gifted Characteristics

According to Hany (1993), a teacher may judge a student as gifted "... only when he or she closely resembles one of the gifted students who were previously stored in memory as being gifted. Teachers who have had contact with a greater number of gifted students ... hold a prototypical concept of gifted students..." (p. 225). This assumption, if true, could have negative implications for gifted Hispanic LEP students, as these students (who are relatively few in numbers) may have characteristics that do not resemble mainstream gifted students.

A frequent criticism of surveys of gifted student characteristics is that they reflect the dominant group's definition of giftedness. Several scholars have concluded that the teacher's limited information about culturally and

linguistically based characteristics of giftedness prevents some students from being referred as candidates for gifted programs (Baca & Chinn, 1982; Bernal, 1974).

Several researchers (Bernal, 1974; Márquez et al., 1992; Torrance, 1978) have recommended the identification of gifted minority students on the basis of characteristics valued by their particular culture. According to Torrance (1978):

As long as we adhere to traditional criteria of general intellectual giftedness, few minority/disadvantaged children will be included. Instruments for identifying students for these programs, as well as the programs themselves, cater to children reared in the dominant, mainstream culture, and do not make use of the special strengths of minority/disadvantaged groups. (p. 302)

Torrance (1975) suggested utilizing a set of "creative positives" that he proposed to characterize most minority cultures, including ability to improvise with common materials, expression of feelings and emotions, humor, problem solving, responsiveness to the kinesthetic, and teamwork. Although not specifically related to Hispanic LEP students, his research significantly contributes to the literature on improving the identification of these students for gifted programs. He surveyed groups of experienced and

preservice teachers, school psychologists, and teachers of gifted children to find out the extent to which they were aware of the creative positives of minority children.

Findings indicated that experienced teachers showed little awareness of the strengths of minority children proposed by Torrance (1975). Preservice teachers, school psychologists, and educators of gifted children showed more awareness but, according to Torrance, still reflected low levels of awareness. It must be noted, however, that no empirical studies have been conducted to establish the actual existence of these creative positives among minority children (Torrance, 1978).

Bermúdez and Rakow (1990) investigated inservice teachers' level of awareness of cultural and linguistic variables of gifted Hispanic LEP students. The Survey on Identification Procedures for Gifted and Talented Hispanic LEP Students (Autrey & Estes, 1988) was administered to 115 inservice teachers from various school districts serving a large metropolitan area of the southwestern U.S. This 18-item Likert scale addresses the role of linguistic and cultural diversity on the identification of the aforementioned students.

Bermúdez and Rakow analyzed differences in degrees of awareness by type of classroom, grade level, and years of



teaching experience. Results indicated that bilingual education teachers were significantly more aware of the presence of bias in procedures and standardized tests used for identification of gifted LEP students than regular classroom teachers. Bilingual education teachers were significantly more aware of the difficulties involved in second language communication than regular classroom teachers. Bilingual education teachers and lower primary grade teachers were significant more aware of the role of first language in second language performance. ESOL teachers were significantly more aware of the challenges LEP students face in trying to speak English as a second language than teachers in the regular classroom. Years of experience and teaching level did not yield significant differences. The authors concluded that identification procedures must take into account behaviors that could mask giftedness in Hispanic LEP students.

Bernal (1974) conducted a study to determine if behavioral descriptors abstracted from interviews with Mexican-Americans could be used to distinguish gifted Chicano children from their non-gifted peers. A sample of 54 gifted and non-gifted children were tested with the WISC, the Torrance Verbal and Figural tests of creativity, and the Cartoon Conservation Scales. Three hundred interviews in

English and Spanish were conducted in the barrios of San Antonio, Austin, and Dallas to gather data on the personal characteristics of gifted children and how giftedness was revealed in the community, home, and school. The behavior statements obtained from the interviews were used to develop a geographically limited perception of giftedness. They were also used as the raw material for the development of a behavioral scale and were ranked according to their probable ability to discriminate among gifted and non-gifted children. Forty-three behavioral statements were identified and cast into a behavior rating scale that was used with parents to describe their children. Parent ratings on the 43 behaviors were subjected to multiple discriminant analysis. The results indicated that nine of the items highly discriminated between gifted and non-gifted children. The following is a list of characteristics identified by those items:

1. Other children always look for him/her and want to be around him/her.
2. Understands and remembers detailed instructions when given the first time.
3. Does not accept what parents tell him/her without question or without talking back when he/she is being corrected for doing something wrong.

4. Shows self-discipline in that he/she will not eat a snack right before a meal.
5. Makes very high grades in school.
6. Takes care of his/her belongings. When finished playing or working with something, returns it to its place.
7. Uses a large vocabulary for his/her age.
8. Learns more quickly than other children do.
9. Speaks correctly, with good grammar for his/her age. (p. 269)

Mexican-Americans interviewed in the community perceived gifted children to be more aware of what is going on in the world than their peers and to be inquisitive. They perceived the children to draw attention to themselves by their manner of speaking and range of knowledge, to be socially intelligent, to frequently help other children in school or siblings at home, and to be independent and self-reliant at work and at play. They viewed the children as having a type of quiet sophistication and maturity about intellectual matters and a desire for self-improvement. They perceived them as being able to influence others to do what they wanted them to do.

Interviewees stressed class participation, a desire to learn more, and a studious nature much more than academic grades as indicators of intelligent behavior. Thus, they

recognized a form of "style" as an important concomitant of giftedness. Most people felt a gifted child must not only have intelligence, but also common sense.

A similar study by Márquez et al. (1992) sought to identify the perceptions that the Hispanic community perceived as important in identifying gifted Hispanic LEP students. Subjects consisted of 85 Hispanic-Americans ages 18-65, from various levels of education. The subjects responded to a Likert-type survey which indicated their perceptions toward stated issues as: (1) strongly disagree, (2) disagree, (3) no opinion, (4) agree, and (5) strongly agree (see Appendix C to view the survey). A factor analysis of the survey items was used to determine general clusters of the items. Six significant factors were identified: Classroom Behaviors, Creativity, Originality, Inquisitiveness, Communication Skills, and Non-Academic Characteristics. The authors offered these descriptions of the factors:

Factor 1, Classroom Behaviors: achievement and other indicators such as self-confidence, communication skills, social interaction, attitudes toward school, and student interests.

Factor 2, Creativity: an appreciation for problem-solving situations, and talents in art and music as well as

bilingual skills.

Factor 3, Originality: the ability to listen, tell stories and jokes, see multiple solutions to problems, see various uses for things, show interest in a variety of things, and feel generally independent from established routines.

Factor 4, Inquisitiveness: curiosity; motivation to learn, read, and ask questions; and the ability and/or desire to observe and to be creative.

Factor 5, Communication Skills: sense of humor, interpersonal skills, and oral and written expression.

Factor 6, Non-Academic Skills: artistic, athletic, and leadership abilities.

Results indicated that subjects rated factors 3 and 4 (Originality and Inquisitiveness, respectively) the highest overall rating. The following items showed agreement (i.e., mean scores of 4 or higher) from the respondents:

<u>Item</u>	<u>Factor</u>
5. is observant	4
6. is creative	4
7. is curious	4
8. likes to read	4
9. is motivated to learn	4
13. asks questions	4

27. finds many solutions to a problem	3
28. likes to try new things	3
29. is good at finding other uses for things	3
45. is interested in a variety of things	3

The rest of the items in the survey yielded mean scores between 2.5 and 4, suggesting a neutral response to the characteristics described in each item. However, the authors cautioned that further investigation was needed before a final profile of the Hispanic gifted student could be determined.

In summary, the few studies examining the perceptions of gifted Hispanic LEP students have added useful information to the scant body of knowledge regarding the identification and characteristics of these students. However, conclusions regarding gifted Hispanic LEP student characteristics are limited. Although some information exists about the level of teacher awareness of the identification procedures for gifted LEP students (i.e., Bermúdez & Rakow, 1990), little is known about their perceptions of these students' characteristics. In Bernal's (1974) study, research target students were exclusively Mexican-American; little is known about other Hispanic students. Furthermore, although the Márquez et al. (1992) study reports some demographic information about

respondents, no statistical analysis was conducted to determine if any demographic factors corresponded to the responses given.

Research is needed to study the effects of teacher ethnicity on perceptions of giftedness. Studies have suggested that Hispanic gifted students may have characteristics that are perceived to be unique by the Hispanic community (Bernal, 1974; Márquez, 1992). Additionally, some evidence suggests that the teacher's ethnicity influences the referral of minority students (e.g., Tobias et al., 1982). No study to date, however, has been conducted to investigate whether the ethnicity of teachers from different ethnic backgrounds corresponds to their perceptions about gifted characteristics. Furthermore, no study to date has been conducted to determine if teachers' perceptions of such students differ from perceptions of gifted students in general (i.e., despite ethnicity and language proficiency).

The present study examines elementary school teachers' perceptions of the characteristics of gifted Hispanic LEP students, and their perceptions of gifted students in general (regardless of ethnicity). The study explores whether teachers' perceptions of gifted Hispanic LEP students differ from their perceptions of gifted students in

general. It also analyzes whether the teachers' perceptions differ based on their ethnic background.



## CHAPTER III

### Method

#### Subjects

According to the District School Profiles 1993-94 (DCPS, 1993a), there are 9,094 elementary classroom teachers in DCPS. Of these, 2,875 (31.60%) have master degrees, 303 (3.30%) have specialist degrees, and 45 (0.50%) have doctoral degrees. The number of elementary teachers with bachelor degrees is not available. However, based on the figures provided above, this number is estimated at 5,871 (64.60%). The elementary teachers' average years of teaching in Florida is 10 years. There are 8,038 (88.40%) female and 1,056 (11.60%) male elementary teachers. As Table 1 shows, the ethnic breakdown for DCPS elementary teachers is 41.00% White, 31.70% Hispanic, 26.80% Black, and 0.50% Asian/American Indian. As Table 2 shows, the ethnic breakdown of students enrolled in elementary schools is approximately 48.00% Hispanic, 35.00% Black, 16.00% White, and 1.00% Asian/American Indian.

Using the District School Profiles 1993-94 (DCPS, 1993a), a stratified random sample of elementary schools in DCPS was selected for the study. Said schools were stratified by (a) ethnic membership of teachers and (b) ethnic membership of students. A criterion was

Table 1

Ethnicity of DCPS Elementary Teachers - 1993-94 School Year

	White	Hispanic	Black	Asian/American Indian	Total
<u>n</u>	3,729	2,883	2,441	41	9,094
<u>%</u>	41.00	31.70	26.80	.50	100.00

Table 2

Ethnicity of Elementary School Students - 1993-94 School  
Year

	White	Hispanic	Black	Asian/American Indian	Total
<u>n</u>	25,586	75,562	54,341	2,017	157,506
<u>%</u>	16.00	48.00	35.00	1.00	100.00

established for the selection of schools that are representative of the ethnic makeup of teachers (i.e., at least 20% Hispanic) and students (i.e., at least 40% Hispanic) in DCPS. Schools meeting this criterion were drawn randomly using a table of random numbers. Ten schools were identified. Nine of the ten schools agreed to participate in the study. The school that chose not to participate was similar to the participating schools in terms of student and staff demographic variables. All teachers in the selected schools were asked to take part. A total of 373 teachers were involved.

Table 3 provides the ethnic breakdown (White, Black, Hispanic) of the teachers from each participating school. Table 4 provides the ethnic breakdown of the student population of these schools.

#### Instrument

An attitude survey (as opposed to an oral interview) was used in the study for the following reasons as outlined by Henerson, Morris, and Fitz-Gibbon (1982) and Orlich (1978):

1. A survey permits anonymity, which increases chances of receiving responses that represent genuine views.
2. It permits the respondent a considerable amount of

Table 3

Ethnic Background of Participating Teachers

School	White		Hispanic		Black		Total
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	
Bowman Foster Ashe	21	35.6	31	52.5	7	11.9	59
Bay Harbor	21	51.2	9	22.0	11	26.8	41
Bent Tree	19	52.8	10	27.8	7	19.4	36
Campbell Drive	13	54.2	9	35.7	2	8.3	24
Fairchild	9	34.6	13	50.0	4	15.4	26
Melrose	11	33.3	11	33.3	11	33.3	33
Miramar	6	23.1	14	53.8	6	23.1	26
Ben Sheppard	17	18.5	54	58.7	21	22.8	92
S. Miami Heights	<u>20</u>	<u>55.6</u>	<u>11</u>	<u>30.6</u>	<u>5</u>	<u>13.9</u>	<u>36</u>
Total	137	36.7	162	43.4	74	19.8	373

Table 4

Ethnic Background of Student Population in Participating Schools

School	White		Hispanic		Black		Asian/American Indian		Total	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>n</u>
Bowman Foster Ashe	291	22	941	71	78	6	19	1	1	1,329
Bay Harbor	468	54	358	41	26	3	12	1	1	864
Bent Tree	202	24	619	72	19	2	20	2	2	860
Campbell Drive	202	22	496	53	221	24	9	1	1	928
Fairchild	210	35	319	52	75	12	4	1	1	608
Melrose	7	1	392	60	253	39	0	0	0	652
Miramar	8	2	337	67	155	31	1	+0	+0	501
Ben Sheppard	68	3	2,047	95	22	1	12	1	1	2,149
S. Miami Heights	<u>127</u>	<u>15</u>	<u>466</u>	<u>55</u>	<u>230</u>	<u>27</u>	<u>25</u>	<u>3</u>	<u>3</u>	<u>848</u>
Total	1,583	18	5,975	68	1,079	12	102	1	1	8,739

- time to think about the answers before responding.
3. It can be given to a large sample size simultaneously.
  4. It provides greater uniformity than do interviews.
  5. The data can be more easily analyzed and interpreted than data from interviews.

Additionally, a survey is more efficient in that it requires less time to conduct and score than interviews, and scoring is more objective (Gay, 1991).

The Survey on Characteristics of Gifted and Talented Hispanic Students (Márquez et al., 1992) was adapted for this study. As discussed earlier in the review of the literature, this attitudinal survey was previously used in the study by Márquez et al. (1992) to measure community perceptions of the characteristics of gifted Hispanic LEP students. It has a five-point, Likert-type scale which provides the following response options toward stated issues: (1) Strongly disagree, (2) Disagree, (3) No opinion, (4) Agree, and (5) Strongly agree. According to the authors, the survey was based on the existing literature on the identification of Hispanic gifted students.

In addition to the advantages to the use of a survey mentioned above, the aforementioned survey was selected for this study for the following reasons:

1. It is brief and easy to complete, as recommended by Gay (1991) and Orlich (1978).
2. It is structured in nature; each response is different from the rest (i.e., 1, 2, 3, 4, 5), facilitating scoring and data analysis, as suggested by Gay (1991).
3. Each item deals with a single concept and is worded clearly, as suggested by Gay (1991) and Orlich (1978).
4. The survey measures the "perceptions" of giftedness inherent in the research questions of this study.
5. It contains items related to general gifted characteristics that are found in the literature reviewed earlier (e.g., "is creative").
6. It includes items related to perceived characteristics of gifted Hispanic LEP students.
7. It allows for the testing of all research questions, including the investigation of the perceptions of gifted student characteristics in general as well as the perceptions of gifted Hispanic LEP student characteristics.

Written permission to adapt/use the instrument was obtained from the authors. (see Appendix D.) The adaptation consisted of keeping items that reflect the characteristics

identified in the literature on giftedness. Additionally, items that related only to Hispanic LEP students only (e.g., "speaks Spanish well") were eliminated.

The adapted survey consisted of two forms: A and B (see Appendices E & F). Form A was titled "Survey on Characteristics of Gifted Hispanic Limited English Proficient Students," and the directions reflected this title (i.e., "A Gifted Hispanic LEP student..."). Form B contained the same items as in Form A but was titled "Survey on Characteristics of Gifted Students," and the directions reflected this title (i.e., "A Gifted student..."). Thus, the directions and items on both forms were identical except for the deletion of the term "Hispanic LEP" from the title and directions on Form B. The adapted survey contained 34 items. A cover sheet attached to the survey included questions on teacher demographic variables (e.g., ethnicity, level of education, etc.). An open-ended question regarding the characteristics of gifted students was included at the end of the instrument to elicit comments beyond those covered by the items in the survey. This question was placed at the end and not at the beginning of the survey so the respondent would not be led toward a response set: the tendency to respond in a certain manner due to a reaction to the construction of the instrument (Wiersma, 1969).



Following the guidelines offered by Henerson et al. (1978) to establish evidence of construct validity, the adapted version of this survey was first given to a panel of judges. The panel was composed of a director of exceptional student education programs (including gifted programs), three bilingual school psychologists, and a veteran teacher of the gifted with 12 years of teaching experience. The survey was shown to the panel of judges without telling them its purpose. These judges were asked to independently indicate what they thought the instrument seemed to measure. All of the judges' conclusions closely agreed that the instrument measured perceptions of gifted student characteristics.

The survey was also given to another group of experts for their feedback. This group consisted of a district supervisor for psychological services, a special education supervisor who was also a licenced psychologist, a special education specialist, a staffing specialist and two bilingual education assessors. These individuals were told what the survey was supposed to measure, and they were asked to provide suggestions on how to improve the instrument. The survey was slightly revised according to their suggestions (i.e., adding lines to the open-ended question for writing, adding "specialist" to the section that asks

for the respondent's educational level).

The survey was then piloted in a graduate program class composed in its majority of DCPS teachers, at Florida International University, to establish reliability prior to the study, to obtain data concerning instrument deficiencies, and to obtain suggestions for improvement. Thirty-eight individuals participated in the pilot testing. Pilot subjects were encouraged to make comments and suggestions concerning the instrument. The survey took 10-15 minutes to complete. Coefficient Alpha (Nunnally, 1978) was determined to establish internal consistency reliability, the tendency of different items to elicit the same attitude from any given respondent on a single administration of the survey. The instrument was found to have a reliability coefficient of .90 for Form A, .88 for Form B, and .89 for both forms combined. These values suggested a high level of reliability: the extent to which the instrument consistently measures its intended purpose.

### Design

The study was both descriptive and experimental in nature. The descriptive component of the study consisted of a self-report research used to determine the current status of teachers' perceptions of gifted Hispanic LEP students and of gifted students in general. Said component described

these perceptions based on responses to the aforementioned survey. The experimental component of the study used a factorial design based on the posttest-only control group design. In the posttest-only control group design, subjects are randomly assigned to groups, exposed to the independent variable, and posttested (Gay, 1991). Figure 1 illustrates a visual representation of this design.

Group	Assignment	<u>n</u>	Treatment	Posttest
I	Random	188	Instrument labeled Gifted Hispanic LEP	Survey
II	Random	185	Instrument labeled Gifted	Survey

Figure 1. Posttest-only control group design.

As the representation shows, there were two randomly formed groups of teachers; one of the groups receiving the instrument labeled "Gifted Hispanic LEP" and the other receiving the instrument labeled "Gifted." Responses to the survey served as the posttest of the design.

The posttest-only control group design controls for all threats to internal and external validity except for mortality, which refers to the effect on the results of the study by subjects' attrition or their dropping out of the

study (Gay, 1991). However, mortality was controlled in the study because the administration of the survey took only one session; thus, the subjects could not drop out of the study. Furthermore, any variables that might affect the responses were equalized due to the randomization used in the study. Both groups were equivalent on all relevant variables, except the treatment variable (the survey form given).

A factorial design is an elaboration of a true experimental design (e.g., posttest-only control group) that permits the investigation of two or more independent variables, individually and in interaction (Gay, 1991). At least one independent variable is manipulated. In the study, the survey condition (gifted Hispanic LEP vs. gifted in general) constituted one factor, and ethnicity was another factor. Thus, a 2 (survey group) x 3 (ethnicity) factorial design was used in which there were two groups receiving the different forms of the survey (the manipulated variable), and ethnicity (White [W], Hispanic [H], and Black [B]) was a control variable. Due to the low number of Asian/American Indian teachers in the population, subjects identifying themselves as such were excluded from quantitative data analysis. Furthermore, subjects who identified themselves as Haitian were counted as Black for data analysis. Figure 2 depicts the 2 x 3 factorial design

used in the study.

The factorial design based on the posttest-only control group design was selected because it allows for the investigation of the variables (survey group and ethnicity) in isolation and in combination and, as mentioned above, all sources of invalidity are controlled.

		Type of Survey	
		Gifted Hispanic LEP	Gifted In General
Ethnicity	W		
	H		
	B		

Figure 2. Two (survey groups) x three (ethnicity) factorial design.

### Procedure

In accordance with DCPS policy, a proposal to conduct the study was submitted to the district's Research Committee of the Office of Educational Accountability. Necessary permission required to conduct the study was obtained in compliance with district policies prior to study implementation (see Appendix G for DCPS letter of authorization).

Letters were sent to the selected schools briefly explaining the study and asking for their cooperation. (see Appendix H.) The principals of each school were contacted to establish dates for survey administrations.

During the week of April 17, 1995 the researcher trained three research assistants from the College of Education at Florida International University to aid with the administration of the survey. The training consisted of a brief explanation of the study, survey administration procedures, and role playing. The assistants were trained to implement the following survey administration procedures:

1. Prior to the study, avoid communicating with any school personnel anything about the study that could affect outcome expectations or influence the perceptions of subjects (e.g., mentioning the term Hispanic LEP).
2. Slowly and clearly read the directions for survey administration.
3. Count the number of participants in a given row or table, and pass out the same number of surveys to that given row or table.
4. Ask the participants to raise their hands if they have any questions.
5. Answer any questions privately and as quietly as

possible.

6. Do not influence the opinions of participants. Encourage reluctant participants, if needed, by quietly saying, "Answer the best you can. We are interested in your professional opinion."
7. Remind subjects to please keep quiet until all surveys are collected.
8. Collect all surveys at the end.

During the training, the assistants were asked to read the directions once to the researcher to ensure they understood and could read them with no difficulty. The assistants also role played helping reluctant and confused participants.

Survey administrations began on April 26, 1995 and finished on May 23, 1995. The surveys were conducted during faculty meetings at the selected schools. The participating teachers were asked to anonymously complete the surveys. The following brief directions were read out loud to the teachers prior to survey administration:

Please take a few minutes of your time to complete this survey. Your valuable input will serve as a contribution to improve the education of a particular group of students. Carefully read the instructions, and answer all of the questions. Please complete the survey independently, as I am interested in your

individual responses. Your responses will remain anonymous. Do not write or sign your name. I kindly ask that you remain quiet until all surveys have been collected. If you have any questions, please raise your hand. When you are done, raise your hand, and I will collect the survey. Thank you for your cooperation.

Randomly, one-half of the teachers in each school received Form A (characteristics of Gifted Hispanic LEP), and the other half received Form B (characteristics of gifted in general). The teachers were not made aware that they were being given different forms of the survey. At the end of the survey administration, all surveys were collected from the subjects.

After completion of the dissertation, an abstract was provided to the Research Committee of DCPS. Upon request, the researcher provided additional feedback about the study to participating schools and subjects.

### Statistical Analysis

The quantifiable data from the surveys were coded for data analysis. The statistical treatment of the data was conducted using the Statistical Package for the Social Sciences (SPSS version 3.1). Responses to the open-ended question regarding what makes a gifted student unique were



summarized and analyzed qualitatively. Descriptive statistics were applied to subject demographic data and survey items to summarize, organize, interpret, and report the data. Cross-tabulations were performed on subject demographic variables to determine if there were any significant differences between the two survey groups in their characteristics. Inferential statistics were used to discern significant differences in survey responses between groups and differences in responses corresponding to ethnicity.

The two groups of subjects, those responding to Form A and those responding to Form B, were compared on the factors of interest. Survey group and ethnicity served as the independent variables. Responses to the survey items were used as the dependent variables.

A 2 x 3 factorial multivariate analysis of variance (MANOVA) was conducted to determine (a) if there were significant differences between the two groups, (b) if there were significant differences among the three ethnicities, and (c) whether there was any interaction between group and ethnicity. The MANOVA statistical method was selected for this study because (a) the dependent variables (the responses to the survey items) considered together share a common conceptual meaning, namely perceptions of gifted

characteristics; (b) this statistical method permits the comparison of the variables both jointly and separately, and (c) the use of this method for the study (versus the use of univariate tests alone) would minimize the possibility of spurious results and the probability of a type I error (concluding that there are differences between the groups, when there really are none).

Overall differences between the variables were analyzed. Univariate differences in mean responses to items were analyzed for variables with multivariate significant results. A variation of the Tukey simultaneous confidence interval technique referred to as the Tukey-Kramer test (Myers & Well, 1995) was conducted for any univariate result found to be significant when ethnicity was the independent variable, to determine which ethnicities contributed to each significant result. This variation of the Tukey procedure was selected because (a) it is appropriate for pairwise multivariate comparisons with unequal cells, and (b) it provides adequate protection against the probability of a Type I error (Myers & Well, 1995; Stevens, 1986). The mean responses were also rank ordered for both survey groups, and a Spearman Rho test was conducted to determine how the rankings between the groups correlated. This test was selected because it is the most appropriate measure of

correlation to use when data are expressed as ranks instead of scores (Gay, 1991).

The level of significance at which all statistical tests were carried out was established at  $\alpha = .05$ . The results of the study were reported relative to the purpose and questions of the study.

## CHAPTER IV

### Results

In this chapter, the statistical analyses of the data are presented according to the procedures described in Chapter III. As mentioned earlier, this study sought to explore teacher perceptions on the characteristics of gifted students in general and teacher perceptions of gifted students classified as Hispanic LEP. Two forms of a Likert-type attitude survey were used to examine these perceptions. Form A measured perceptions of gifted Hispanic LEP students, and Form B measured those of gifted students in general. Both forms contained the same items, but, unlike Form A, the title and directions of Form B did not include the term "Hispanic LEP."

The data analyzed were based on responses from nine schools and 373 subjects who participated in the study. One-half of the teachers in each school received Form A (Gifted Hispanic LEP), and the other half received Form B (Gifted in General). The two groups of subjects were compared on their responses to survey items.

Cross-tabulations were performed on subject demographic variables to determine if there were any significant differences between the two groups in their characteristics. A 2 x 3 factorial multivariate analysis of variance (MANOVA)

was conducted on the responses to the survey to determine (a) if there were significant differences between the responses of the two groups, (b) if there were significant differences in responses among the teachers' ethnicities, and (c) whether there was any interaction between group and ethnicity. Univariate tests were carried out for significant multivariate results, to determine which of the characteristics were contributing to the significant multivariate difference. For significant ethnicity main effects, Tukey-Kramer post-hoc tests were conducted on the characteristics' means to determine which pairs of ethnicities were contributing to the significant univariate results. The mean responses were also rank ordered for both survey groups, and a Spearman Rho test was conducted to determine how the rankings between the groups correlated.

#### Descriptive Statistics for the Characteristics of Participants

Of the 373 teachers participating in the study, a total of 188 completed Form A (Gifted Hispanic LEP), and 185 completed Form B (Gifted in General). Table 5 presents breakdowns of the participants' gender, level of education, years of teaching, and language background. Table 6 provides the ethnic breakdown (White, Black, and Hispanic) of the subjects from each survey group. A total of 162

Table 5

Subjects' Gender, Language Background, Level of Education, and Years of Teaching by Survey Group

Variable	Survey Group					
	HLEP		GG		Total	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Gender						
Male	21	11.5	15	8.4	36	10.0
Female	<u>161</u>	<u>88.5</u>	<u>164</u>	<u>91.6</u>	<u>325</u>	<u>90.0</u>
	182	100.0	179	100.0	361	100.0
Language Background						
English/Spanish	89	48.6	96	54.2	185	51.4
English/Creole	1	.6	1	.6	2	.5
Monolingual	89	48.6	75	42.4	164	45.6
Other	<u>4</u>	<u>2.2</u>	<u>5</u>	<u>2.8</u>	<u>9</u>	<u>2.5</u>
	183	100.0	177	100.0	360	100.0
Level of Education						
Bachelor	100	54.1	91	49.7	191	51.9
Master	66	35.7	75	41.0	141	38.3
Specialist	16	8.6	16	8.7	32	8.7
Doctorate	<u>3</u>	<u>1.6</u>	<u>1</u>	<u>.5</u>	<u>4</u>	<u>1.1</u>
	185	100.0	183	100.0	368	100.0
Years of Teaching						
0-5	54	28.9	52	28.4	106	28.7
6-10	42	22.5	44	24.1	86	23.2
11-15	24	12.8	22	12.0	46	12.4
>15	<u>67</u>	<u>35.8</u>	<u>65</u>	<u>35.5</u>	<u>132</u>	<u>35.7</u>
	187	100.0	183	100.0	370	100.0

Note. HLEP = Gifted Hispanic LEP group. GG = Gifted in General group.

Table 6

Subjects' Ethnicity by Survey Group

Ethnicity	Survey Group					
	HLEP		GG		Total	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Black	38	10.19	36	9.65	74	19.84
Hispanic	76	20.38	86	23.06	162	43.43
White	<u>74</u>	<u>19.84</u>	<u>63</u>	<u>16.89</u>	<u>137</u>	<u>36.73</u>
	188	50.40	185	49.60	373	100.00

Note. HLEP = Gifted Hispanic LEP group. GG = Gifted in General group.

Hispanic, 137 White, and 74 Black subjects participated in the study.

Cross-tabulations were conducted to determine if there were any differences between survey groups in their demographic variables. No significant differences were found between the two groups in gender ( $p=.32$ ), language background ( $p=.69$ ), level of education ( $p=.57$ ), years of teaching ( $p=.98$ ), nor ethnicity ( $p=.47$ ).

### Analysis of Results

The study attempted to answer the following research questions.

1. Given a list of descriptors, how do elementary school teachers in DCPS rate the importance of various characteristics for gifted Hispanic LEP students?
2. Given a list of descriptors, how do elementary school teachers in DCPS rate the importance of various characteristics for any gifted student (regardless of ethnicity and language proficiency)?
3. Are the perceptions of characteristics mentioned in question 1 different from those of 2, and, if so, how are they different?
4. Do these perceptions differ based on the teachers' ethnic membership?

A two-way MANOVA (survey group by ethnicity) was



conducted to analyze the 34 gifted characteristics represented in the survey items. The statistical analysis allowed the investigation of differences in responses to items based on (a) survey groups, (b) ethnic membership, and (c) the interaction of these two variables. The statistical level for the MANOVA and univariate analysis of variance tests was set at the .05 level.

Table 7 presents the results of the multivariate test. As illustrated in this table, there were overall significant differences by survey group ( $p < .005$ ) and by ethnicity ( $p = .001$ ). However, no overall multivariate significant result was found in the interaction between survey group and ethnicity ( $p = .211$ ).

Table 7

Multivariate Analysis of Variance on Gifted Characteristics by Survey Group and Ethnicity

Variable	Wilk's Lambda	df	F-value	p-value
Survey Group	.602	34,288	5.60	<.005
Ethnicity	.696	68,576	1.69	.001
Group x Ethnicity	.776	68,576	1.14	.211

Ratings of the Importance of Characteristics for Gifted Hispanic LEP Students. Table 8 presents the means, standard deviations, univariate  $F$  values, and  $p$  values of the responses to each of the survey items by survey group. As indicated in this table, subjects who completed the Gifted Hispanic LEP survey rated the following characteristics highest: (1) is curious ( $\bar{x}=3.82$ ), (2) likes to try new things ( $\bar{x}=3.68$ ), (3) is motivated to learn ( $\bar{x}=3.68$ ), (4) asks questions ( $\bar{x}=3.67$ ), (5) is observant ( $\bar{x}=3.67$ ), (6) is good at finding other uses for things ( $\bar{x}=3.65$ ), and (7) is creative ( $\bar{x}=3.64$ ). These subjects rated the following characteristics the lowest: is a good athlete ( $\bar{x}=2.83$ ), can play a musical instrument ( $\bar{x}=2.91$ ), and is musically talented ( $\bar{x}=3.00$ ). Appendix I presents the frequencies and percentages of response ratings for all items. As this appendix indicates, the means of the responses were not a result of extreme values.

Ratings of the Importance of Characteristics for Any Gifted Student. As Table 8 indicates, the characteristics rated highest by the subjects who responded to the Gifted in General survey were (1) is curious ( $\bar{x}=4.22$ ), (2) is creative ( $\bar{x}=4.07$ ), (3) is observant ( $\bar{x}=4.06$ ), (4) asks questions ( $\bar{x}=3.95$ ), (5) is motivated to learn ( $\bar{x}=3.92$ ), (6) is good at finding other uses for things ( $\bar{x}=3.88$ ), and (7) likes to try

Table 8

Means, Standard Deviations, and Univariate F Tests by Group

Item	<u>M</u>	<u>SD</u>	<u>F</u> -value	<u>p</u> -value
1. is artistically talented			9.25	.003**
HLEP	3.07	.92		
GG	2.74	1.00		
2. is a good athlete			22.84	<.005**
HLEP	2.83	.81		
GG	2.37	.84		
3. is musically talented			21.63	<.005**
HLEP	3.00	.80		
GG	2.55	.86		
4. possesses leadership qualities			1.41	.235
HLEP	3.35	.93		
GG	3.49	1.11		
5. is observant			11.47	.001**
HLEP	3.67	.95		
GG	4.06	.97		
6. is creative			13.31	<.005**
HLEP	3.64	.99		
GG	4.07	.97		
7. is curious			13.76	<.005**
HLEP	3.82	.93		
GG	4.22	.89		
8. likes to read			3.73	.054
HLEP	3.56	.99		
GG	3.78	.99		

Table 8 (cont.)

Means, Standard Deviations, and Univariate F Tests by Group

Item	<u>M</u>	<u>SD</u>	<u>F-value</u>	<u>p-value</u>
9. is motivated to learn			3.88	.050*
HLEP	3.68	.99		
GG	3.92	1.02		
10. is a good student			1.46	.228
HLEP	3.38	1.00		
GG	3.24	1.09		
11. asks questions			6.01	.015*
HLEP	3.67	.97		
GG	3.95	.98		
12. is friendly			10.59	.001**
HLEP	3.36	.93		
GG	2.98	.91		
13. is self-confident			2.26	.133
HLEP	3.35	.95		
GG	3.52	.96		
14. has a large vocabulary			24.22	<.005**
HLEP	3.17	.96		
GG	3.72	.94		
15. likes to do math problems			10.56	.001**
HLEP	3.32	.91		
GG	2.97	.93		
16. likes to do science experiments			2.55	.111
HLEP	3.37	.88		
GG	3.20	.99		

Table 8 (cont.)

Means, Standard Deviations, and Univariate F Tests by Group

Item	<u>M</u>	<u>SD</u>	<u>F</u> -value	<u>p</u> -value
17. speaks more than one language			72.57	<.005**
HLEP	3.34	1.16		
GG	2.31	.94		
18. is independent			2.68	.103
HLEP	3.41	1.02		
GG	3.61	1.02		
19. is a good listener			.39	.534
HLEP	3.44	.95		
GG	3.37	1.04		
20. works well with others			4.76	.030*
HLEP	3.37	.91		
GG	3.12	1.04		
21. finds many solutions to a problem			8.69	.003**
HLEP	3.52	.92		
GG	3.83	.89		
22. likes to try new things			2.93	.088
HLEP	3.68	.97		
GG	3.87	.92		
23. is good at finding other uses for things			5.67	.018*
HLEP	3.65	.82		
GG	3.88	.86		

Table 8 (cont.)

Means, Standard Deviations, and Univariate F Tests by Group

Item	<u>M</u>	<u>SD</u>	<u>F</u> -value	<u>p</u> -value
24. expresses himself/herself well orally			8.15	.005**
HLEP	3.31	.92		
GG	3.62	.96		
25. is good at explaining things			3.09	.080
HLEP	3.33	.90		
GG	3.51	.91		
26. does well in school			1.10	.295
HLEP	3.37	.96		
GG	3.49	1.00		
27. likes to study			.07	.798
HLEP	3.27	.89		
GG	3.25	1.00		
28. can play a musical instrument			25.40	<.005**
HLEP	2.91	.77		
GG	2.44	.85		
29. can draw			21.87	<.005**
HLEP	3.13	.86		
GG	2.67	.90		
30. is a good story teller			2.21	.138
HLEP	3.20	.87		
GG	3.04	1.04		
31. is a good joke teller			7.99	.005**
HLEP	3.05	.81		
GG	2.76	.94		

Table 8 (cont.)

Means, Standard Deviations, and Univariate F Tests by Group

Item	<u>M</u>	<u>SD</u>	<u>F</u> -value	<u>p</u> -value
32. is good at reciting poetry			6.57	.011*
HLEP	3.01	.77		
GG	2.77	.90		
33. is a good dancer			38.85	<.005**
HLEP	3.01	.71		
GG	2.47	.79		
34. is interested in a variety of things			1.13	.288
HLEP	3.62	.91		
GG	3.73	.95		

Note. HLEP = Gifted Hispanic LEP group. GG = Gifted in General group.

n = 159 for HLEP. n = 168 for GG.

\* p < .05 level. \*\* p < .01 level.

new things ( $\bar{x}=3.87$ ). These subjects rated the following characteristics the lowest: speaks more than one language ( $\bar{x}=2.31$ ), is a good athlete ( $\bar{x}=2.37$ ), and can play a musical instrument ( $\bar{x}=2.44$ ). This group also gave relatively low ratings to the items "is musically talented" ( $\bar{x}=2.52$ ), "can draw" ( $\bar{x}=2.64$ ), and "is artistically talented" ( $\bar{x}=2.74$ ). Again, as Appendix I indicates, the means of the responses were not a result of extreme values.

Differences in Perceptions by Group. As Table 8 shows, there were significant differences between survey groups in 21 of the 34 items. The means of all of the highest rated items mentioned earlier were significantly higher for the Gifted in General group than for the Gifted Hispanic LEP group. Items with the most significant differences in mean responses by survey group were (1) speaks more than one language, (2) is a good dancer, (3) can play a musical instrument, (4) has a large vocabulary, and (5) is a good athlete ( $p<.005$ ). The Gifted Hispanic LEP group rated the item "speaks more than one language" ( $\bar{x}=3.34$ ) higher than the Gifted in General group ( $\bar{x}=2.31$ ), yielding the most significant F value of all ( $F=72.57$ ). The Gifted in General group rated the item "has a large vocabulary" higher ( $\bar{x}=3.72$ ) than the Gifted Hispanic LEP group ( $\bar{x}=3.17$ ). The Gifted in General group rated the items "is a good athlete"



( $\bar{x}$ =2.37), "can play a musical instrument" ( $\bar{x}$ =2.44), and "is a good dancer" ( $\bar{x}$ =2.47) lower than the Gifted Hispanic LEP group ( $\bar{x}$ =2.84,  $\bar{x}$ =2.91, and  $\bar{x}$ =3.01 respectively).

The means of the responses by both groups were rank ordered to illustrate how items were rated in terms of their perceived importance (see Table 9). An examination of the rank ordering indicated that the means in the Gifted in General group were greater for the highest ranked items and lower for the lowest ranked items than the means in the Gifted Hispanic LEP group. This examination also indicated that the highest rated items were similar for both groups. The item "is curious" was rated the highest in both groups. Similarly, the items "asks questions" and "is good at finding other uses for things" were ranked essentially the same for both groups, namely fourth and sixth respectively. However, the rank order for the rest of the aforementioned top ranked items varied somewhat between the groups. For example, the item "likes to try new things" was rated second highest in the Gifted Hispanic LEP group but seventh highest in the Gifted in General group. The reverse took place with the item "is creative." This item was rated second highest in the Gifted in General group and seventh highest in the Gifted Hispanic LEP group.

The item "is a good athlete" was rated the lowest in

Table 9

Ranking of Responses to Survey Items by Group


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HLEP Rank	GG Rank	Item
1	1	7. is curious
2	7	22. likes to try new things
3	5	9. is motivated to learn
4	4	11. asks questions
5	3	5. is observant
6	6	23. is good at finding other uses for things
7	2	6. is creative
8	10	34. is interested in a variety of things
9	9	8. likes to read
10	8	21. finds many solutions to a problem
11	18	19. is a good listener
12	13	18. is independent
13	20	10. is a good student
14	21	16. likes to do science experiments
15	16	26. does well in school
16	22	20. works well with others
17	14	13. is self-confident
18	17	4. possesses leadership qualities
19	34	17. speaks more than one language
20	24	12. is friendly
21	15	25. is good at explaining things
22	25	15. likes to do math problems

---

Table 9 (cont.)

Ranking of Responses to Survey Items by Group

HLEP Rank	GG Rank	Item
23	12	24. expresses himself/herself well orally
24	19	27. likes to study
25	23	30. is a good story teller
26	11	14. has a large vocabulary
27	29	29. can draw
28	28	1. is artistically talented
29	27	31. is a good joke teller
30	31	33. is a good dancer
31	26	32. is good at reciting poetry
32	30	3. is musically talented
33	32	28. can play a musical instrument
34	33	2. is a good athlete

Note. HLEP = Gifted Hispanic LEP group. GG = Gifted in General group.  
Means were rounded to the 1/1000 place for ranking purposes.

the Gifted Hispanic LEP survey group. Similarly, the mean response for this item by the Gifted in General survey group was ranked 33rd out of the 34 items. The item "speaks more than one language" was rated the lowest in the Gifted in General survey group ( $\bar{x}=2.31$ ). However, the rank order of the mean response for this item by the Gifted Hispanic LEP survey group was 19th out of the 34 items ( $\bar{x}=3.34$ ).

A Spearman rho measure of correlation was conducted to determine the relationship between the rankings assigned to the items in both survey groups. A statistically significant correlation coefficient of  $+0.85$  was found ( $p<.005$ ), indicating a high positive correlation between the rankings in the two survey groups. However, as Figure 3 illustrates, three items showed some differences in the rankings. Item 14, "has a large vocabulary," was ranked 11th in the Gifted in General group and 26th in the Gifted Hispanic LEP group. As mentioned earlier, item 17, "speaks more than one language," was ranked 34th in the Gifted in General group and 19th in the Gifted Hispanic LEP group. Item 24, "expresses him/herself well orally," was ranked 12th in the Gifted in General group and 23rd in the Gifted Hispanic LEP group.

Differences in Perceptions by Ethnicity. Table 10 displays the univariate test results for the items with

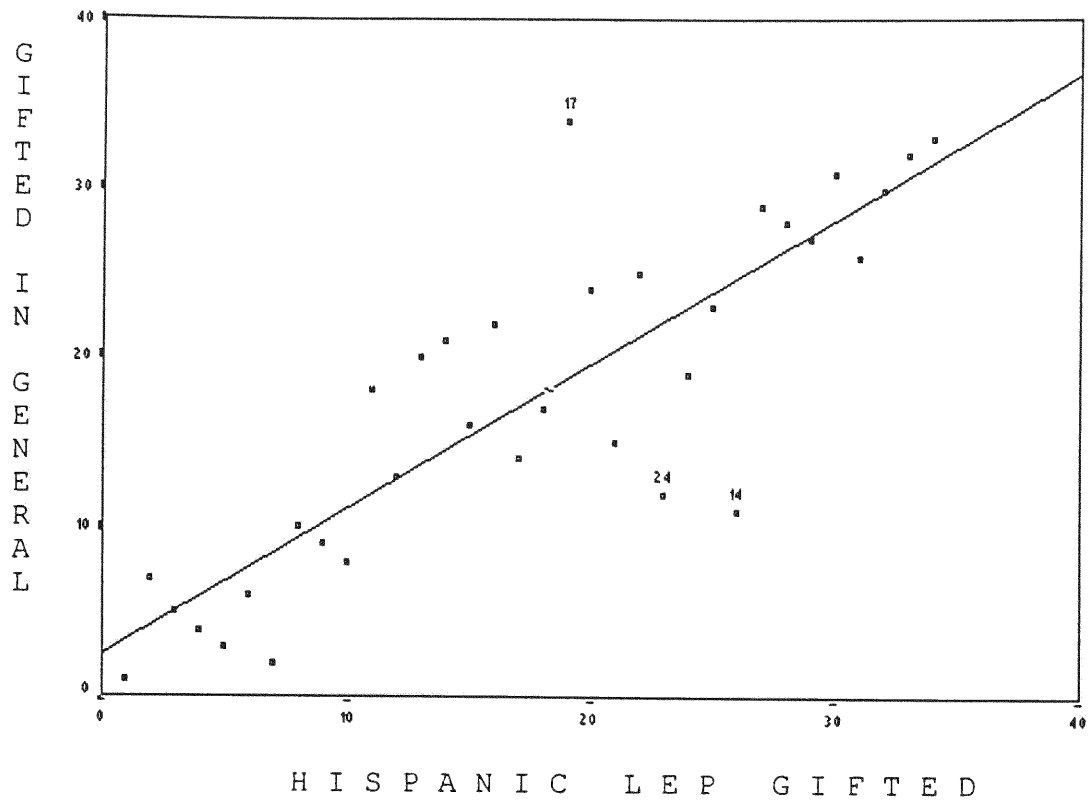


Figure 3. Scatterplot for Spearman Rho correlation of item rank order by group.

significant differences by ethnicity. As this table shows, there were significant differences based on the teacher's ethnicity in 14 out of the 34 items. Items with the most significant differences in mean responses were: "likes to study" ( $p=.002$ ), "is interested in a variety of things" ( $p=.003$ ), "does well in school" ( $p=.004$ ), "works well with others" ( $p=.008$ ), and "is a good listener" ( $p=.010$ ). A Tukey-Kramer pairwise comparison procedure was carried out at the .05 significance level to determine which of the ethnicities (White, Black, and Hispanic) were contributing to significant analyses of variances.

Results of the Tukey-Kramer test are presented in Table 10. The mean response to the items "likes to study" and "does well in school" was significantly higher for Blacks and Hispanics than for Whites. The mean response to the items "is interested in a variety of things," "works well with others," and "is a good listener" was significantly higher for Hispanics than for Whites.

To control for the effect of differences among the Hispanic respondents, two additional MANOVAs were conducted on the Hispanic subgroup of 143 teachers (see Tables 11 and 12). One analysis used the country of birth (Hispanics born in the U.S. vs. foreign born) and survey group as the independent variables. There were 64 Hispanic subjects born

Table 10

Means, Standard Deviations, and Univariate F Tests by Ethnicity

Item	<u>M</u>	<u>SD</u>	<u>F</u> -value	<u>p</u> -value
1. is artistically talented			2.50	.084
Black	2.92	1.07		
Hispanic	3.03	.98		
White	2.77	.88		
2. is a good athlete			.98	.377
Black	2.53	.80		
Hispanic	2.68	.90		
White	2.58	.80		
3. is musically talented			2.61	.075
Black	2.73	.88		
Hispanic	2.91	.86		
White	2.68	.83		
4. possesses leadership qualities			.66	.516
Black	3.46	1.15		
Hispanic	3.47	1.02		
White	3.33	.96		
5. is observant			2.66	.072
Black	3.73	1.11		
Hispanic	4.03	.90		
White	3.82	1.03		
6. is creative			1.80	.167
Black	3.76	1.10		
Hispanic	4.00	.94		
White	3.81	1.06		

Table 10 (cont.)

Means, Standard Deviations, and Univariate F Tests by Ethnicity

Item	<u>M</u>	<u>SD</u>	<u>F-value</u>	<u>p-value</u>
7. is curious			4.22	.016*
Black	3.82 <sup>b</sup>	1.07		
Hispanic	4.21 <sup>a</sup>	.80		
White	4.02 <sup>ab</sup>	1.00		
8. likes to read			1.48	.228
Black	3.65	1.11		
Hispanic	3.78	.92		
White	3.57	.97		
9. is motivated to learn			1.14	.320
Black	3.84	1.12		
Hispanic	3.86	.98		
White	3.68	1.01		
10. is a good student			1.10	.335
Black	3.32	1.19		
Hispanic	3.40	1.05		
White	3.21	.98		
11. asks questions			3.49	.032*
Black	3.67 <sup>a</sup>	1.09		
Hispanic	4.01 <sup>a</sup>	.89		
White	3.75 <sup>a</sup>	1.04		
12. is friendly			1.45	.235
Black	3.17	1.09		
Hispanic	3.25	.92		
White	3.05	.86		



Table 10 (cont.)

Means, Standard Deviations, and Univariate F Tests by Ethnicity

Item	<u>M</u>	<u>SD</u>	<u>F</u> -value	<u>p</u> -value
13. is self-confident			3.79	.024*
Black	3.58 <sup>a</sup>	1.09		
Hispanic	3.50 <sup>ab</sup>	.96		
White	3.23 <sup>b</sup>	.89		
14. has a large vocabulary			4.08	.018*
Black	3.25 <sup>b</sup>	1.01		
Hispanic	3.65 <sup>a</sup>	.99		
White	3.43 <sup>ab</sup>	.96		
15. likes to do math problems			2.62	.074
Black	3.19	1.02		
Hispanic	3.25	.98		
White	3.00	.79		
16. likes to do science experiments			1.71	.182
Black	3.36	.96		
Hispanic	3.35	1.02		
White	3.15	.83		
17. speaks more than one language			.19	.823
Black	2.88	1.27		
Hispanic	3.48	1.17		
White	2.78	1.00		
18. is independent			2.79	.063
Black	3.48	1.09		
Hispanic	3.68	1.03		
White	3.38	.99		

Table 10 (cont.)

Means, Standard Deviations, and Univariate F Tests by Ethnicity

Item	<u>M</u>	<u>SD</u>	<u>F-value</u>	<u>p-value</u>
19. is a good listener			4.65	.010**
Black	3.51 <sup>ab</sup>	1.03		
Hispanic	3.53 <sup>a</sup>	.97		
White	3.18 <sup>b</sup>	.97		
20. works well with others			4.91	.008**
Black	3.32 <sup>ab</sup>	1.06		
Hispanic	3.39 <sup>a</sup>	1.03		
White	3.02 <sup>b</sup>	.91		
21. finds many solutions to a problem			4.42	.013*
Black	3.54 <sup>b</sup>	.93		
Hispanic	3.88 <sup>a</sup>	.87		
White	3.61 <sup>b</sup>	.96		
22. likes to try new things			2.97	.053
Black	3.74	1.02		
Hispanic	3.94	.91		
White	3.66	.95		
23. is good at finding other uses for things			3.79	.024*
Black	3.74 <sup>ab</sup>	.76		
Hispanic	3.92 <sup>a</sup>	.83		
White	3.64 <sup>b</sup>	.86		
24. expresses him/herself well orally			2.15	.119
Black	3.51	.95		
Hispanic	3.54	.93		
White	3.32	.93		

Table 10 (cont.)

Means, Standard Deviations, and Univariate F Tests by Ethnicity

Item	<u>M</u>	<u>SD</u>	<u>F</u> -value	<u>p</u> -value
25. is good at explaining things			3.01	.051
Black	3.44	.86		
Hispanic	3.54	.94		
White	3.27	.85		
26. does well in school			5.66	.004**
Black	3.62 <sup>a</sup>	.89		
Hispanic	3.50 <sup>a</sup>	.99		
White	3.18 <sup>b</sup>	.94		
27. likes to study			6.47	.002**
Black	3.40 <sup>a</sup>	.87		
Hispanic	3.38 <sup>a</sup>	1.02		
White	3.01 <sup>b</sup>	.82		
28. can play a musical instrument			1.43	.240
Black	2.68	.87		
Hispanic	2.76	.90		
White	2.59	.68		
29. can draw			3.70	.026*
Black	3.08 <sup>a</sup>	.98		
Hispanic	2.90 <sup>ab</sup>	.94		
White	2.73 <sup>b</sup>	.72		
30. is a good story teller			4.32	.014*
Black	3.22 <sup>ab</sup>	1.02		
Hispanic	3.23 <sup>a</sup>	.99		
White	2.92 <sup>b</sup>	.78		

Table 10 (cont.)

Means, Standard Deviations, and Univariate F Tests by Ethnicity

Item	<u>M</u>	<u>SD</u>	<u>F-value</u>	<u>p-value</u>
31. is a good joke teller			.12	.884
Black	2.90	1.00		
Hispanic	2.93	.92		
White	2.88	.76		
32. is good at reciting poetry			3.74	.025*
Black	3.10 <sup>a</sup>	1.01		
Hispanic	2.79 <sup>b</sup>	.82		
White	2.79 <sup>b</sup>	.72		
33. is a good dancer			.56	.570
Black	2.81	.89		
Hispanic	2.73	.82		
White	2.68	.70		
34. is interested in a variety of things			5.98	.003**
Black	3.75 <sup>ab</sup>	.87		
Hispanic	3.83 <sup>a</sup>	.91		
White	3.45 <sup>b</sup>	.94		

Note.  $\underline{n}$  = 63 for Blacks.  $\underline{n}$  = 145 for Hispanics.  $\underline{n}$  = 119 for Whites. Means with the same superscript (<sup>a</sup> or <sup>b</sup>) are not significantly different from each other according to the Tukey-Kramer procedure. For example, for item 34 the means for Hispanic and White subjects are significantly different from each other, but neither is significantly different from that of the Black subjects.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 11

Multivariate Analysis of Variance on Gifted Characteristics by Country of Birth and Survey Group for the Hispanic Subjects<sup>a</sup>

Variable	Wilk's Lambda	<u>df</u>	<u>F</u> -value	<u>p</u> -value
Survey Group	.560	34,106	2.45	<.005
Country of Birth	.816	34,106	.70	.878
Group x Country	.833	34,106	.62	.941

Note. Country of Birth refers to U.S. vs. foreign born.

<sup>a</sup>n = 143.

Table 12

Multivariate Analysis of Variance on Gifted Characteristics by Years in the U.S. and Survey Group for Foreign Born Hispanics

Variable	Wilk's Lambda	<u>df</u>	<u>F</u> -value	<u>p</u> -value
Survey Group	.434	34,43	1.65	.061
Years in the U.S.	.313	68,86	1.00	.501
Group x Years	.320	68,86	.97	.548

Note. Years in the U.S. refers to Hispanic respondents who are foreign born. n = 82.

in the U.S. and 79 born outside the U.S. The other analysis used years in the U.S. (2-24, 25-30, and 31-40) and survey group as the independent variables. Twenty-seven subjects lived in the U.S. between 2-24 years, 30 had been in the U.S. between 25-30 years, and 38 between 31-40 years. Results indicated that there was no significant main effect based on country of birth ( $p=.88$ ) nor interaction effect between country of birth and survey group ( $p=.94$ ). Results also revealed that there was no main effect of survey group ( $p=.061$ ), years in the U.S. ( $p=.50$ ), nor interaction effect between years in the U.S. and survey group ( $p=.55$ ).

Open-ended Question: What Makes a Gifted Student Unique?

As mentioned earlier, an open-ended question was included at the end of the survey to elicit comments beyond those covered by the items in the survey. The question read as follows:

What makes a gifted student unique as compared to his or her non-gifted peers?

Out of the 373 subjects who participated in the study, a total of 281 (75.3%) responded to this question. Of these, 123 (43.8%) were Hispanic, 102 (36.3%) were White, 47 (16.7%) were Black, 1 was Asian (.4%), and 8 were Other (2.8%). All responses were rewritten word-for-word and presented in Appendix J. The responses from each school

were divided by survey group, namely Gifted Hispanic LEP and Gifted in General. The respondent's particular ethnic group was noted in a parenthesis after each response.

As can be seen in Appendix J, responses were typically the same as those rated highest in the survey items. Generally, subjects responded that a gifted child is unique as to curiosity, creativity, motivation to learn, trying new things, and solving problems. The most mentioned characteristic was creativity (or "creative") (n=43 or 15.3%). The second most mentioned characteristic was that of curiosity (or "curious") (n=35 or 12.5%).

Respondents also mentioned some characteristics in the survey items that were not rated highly (e.g., talents in art, athletics, music), but usually as only part of the response. For example, respondent number 199 wrote the following:

...they possess academic qualities that are of a higher level than others. They can possess a variety of enhanced skills in many areas: arts, music, dance, athletics ...

Occasionally, teachers provided responses about characteristics that were different from those in the survey items. These included the following: excelling (n=21 or 7.5%), critical thinking skills (n=19 or 6.8%), and high IQ

(n=15 or 5.3%).

Some respondents mentioned characteristics that were different, yet similar in meaning, to the survey items. For example, a total of 15 subjects (5.3%) mentioned that a gifted student is "inquisitive," which is similar to "curious." A total of six subjects (2.1%) mentioned the word "eager," which is similar to "motivated."

Some respondents made comments regarding the importance of the individuality of children. The following are some examples of these comments:

I feel it is difficult to generalize about any gifted student. As individuals they display a range which can go from one or the other side of the scale depending on their unique talent. (Respondent number 142)

... It really depends on the individual child.  
(Respondent number 145)

All students are gifted in one way or another.  
Each child is unique for different reasons...  
(Respondent number 192).

A few of the responses differed somewhat in frequencies when ethnicity was analyzed. No Black subjects reported IQ as a unique characteristic of gifted students, while eight White and seven Hispanic subjects did so. The number of responses related to creativity was greater for Hispanics (n=20) than



for Whites (n=18) and Blacks (n=4). Responses related to curiosity were greater for Whites (n=16) than for Blacks (n=4) and Hispanics (n=14). Responses related to problem solving were greater for Whites (n=11) than for Blacks (n=4) and Hispanics (n=7).

Although the open-ended question was not asked in terms of any particular type of gifted student (i.e., Hispanic LEP or gifted in general), a few of the respondents who completed the Gifted Hispanic LEP survey wrote specific statements about LEP students. Some subjects indicated that there was no difference between LEP gifted students and gifted students in general (see response numbers 127, 220, and 265). Others mentioned that they had never worked with a LEP student (see response numbers 178, 209, 220, and 241). One subject indicated that the survey applied to all gifted students, not just those who are LEP (see response number 246). Another subject indicated that a LEP gifted student was like a non-LEP gifted student except for the limited English language proficiency (see response number 143). Another subject responded that giftedness is displayed "regardless of language proficiency..." (see response number 235).

Finally, of the subjects who referred to one gender in their responses (n=30), all references were made to males (e.g., "He ...").

## CHAPTER V

### Discussion

#### Summary

Hispanic LEP students are under-represented in gifted programs throughout the United States (Kitano, 1991; LaFontaine, 1987). A variety of reasons have been offered to explain the under-representation. These include the lack of valid tests for identifying these students (Melesky, 1985), the biased nature of standardized tests (Boyle, 1987; Gonzalez & Yawkey, 1993), the imprecise definitions of giftedness (McKenzie, 1986; Melesky, 1985), and the teacher's lack of familiarity with LEP student characteristics (Bermúdez & Rakow, 1990). Of these, it is the teacher's lack of knowledge about the student that may have the greatest influence on the identification of giftedness. As the initial step in the identification process, the teacher's nomination of a student for the gifted program (or lack thereof) often controls admission to the program (Schack & Starko, 1990).

To adequately identify gifted Hispanic LEP students, it is important to understand the meaning of the term "giftedness." Unfortunately, the concept of giftedness is unclear (Hoge, 1988), and there is much disagreement in its definition (Feldhusen & Jarwan, 1993). Relatedly, various characteristics of giftedness have been reported in the literature, including outstanding knowledge, memory, creativity, motivation, language, leadership, reading, art,

and music skills (see, e.g., Sternberg & Davidson, 1986; Gardner, 1983; 1993). According to this research, it appears that there is no one type of giftedness. Rather, in keeping with Gardner's (1983) theory of multiple intelligence and Marland's (1972) definition of giftedness, there seem to be various talents and characteristics in giftedness.

Research studies suggest that Hispanic students may have unique socio-cultural and linguistic characteristics (Fernandez & Nelson, 1986) and learning style differences (Dunn & Griggs, 1990) that affect their learning. Insufficient knowledge about these learning characteristics may prevent the identification of giftedness (Bermúdez & Rakow, 1990).

Additionally, some evidence suggests that ethnicity may influence the referral of minority students. For example, Tobias et al. (1982) found that teachers rated students from ethnic backgrounds other than their own as more appropriate for special education (excluding gifted) placement.

Some studies have investigated stereotypes that can influence decisions, by fictitiously manipulating the ethnic background of a hypothetical individual to form an impression about the individual (Guttman & Bar-Tar, 1982; Bar-Tar et al., 1989). Results of these studies have indicated that teachers differentially evaluate individuals on the basis of ethnic origin. Similar results have been found in studies of teacher referrals for special education

(excluding gifted) (Zucker & Prieto, 1977; Prieto & Zucker, 1981). For example, Prieto and Zucker (1981) found that more teachers rated a student appropriate for special education placement when the student was described as Hispanic.

There have been a few studies in the area of teacher perceptions of giftedness. Results have indicated that teachers perceive giftedness similar to the way it is reported in the gifted literature (Awanbor, 1991; Busse et al., 1986; Guskin, Pen, & Majd-Jabbari, 1988). However, these studies have not examined teachers' perceptions of gifted Hispanic LEP students. Only two studies to date have been conducted specifically to assess the views about these students' characteristics (Bernal, 1974; Márquez et al., 1992). Results of these studies have suggested that gifted Hispanic students may have characteristics that are perceived to be somewhat unique by the Hispanic community (Bernal, 1974; Márquez, 1992). However, these studies did not focus specifically on teachers' perceptions.

Most gifted programs use teacher nominations as part of the referral and identification process (Adderholdt-Elliott et al., 1991; Richert et al., 1982). Thus, to improve the identification of gifted Hispanic LEP students, it is critical to understand teachers' perceptions of gifted characteristics.

The purpose of the study was to determine whether the perceptions of teachers on the characteristics of gifted

students classified as Hispanic LEP differed from perceptions of gifted students in general. The study also sought to determine whether the teachers' perceptions differed based on their ethnic backgrounds. The following is a list of the research questions that the study attempted to answer.

1. Given a list of descriptors, how do elementary school teachers in DCPS rate the importance of various characteristics for gifted Hispanic LEP students?
2. Given a list of descriptors, how do elementary school teachers in DCPS rate the importance of various characteristics for any gifted student (regardless of ethnicity and language proficiency)?
3. Are the perceptions of the characteristics mentioned in question 1 different from those of 2, and, if so, how are they different?
4. Do these perceptions differ based on the teachers' ethnic membership?

In addition, subject demographic data was collected to describe the subjects and to explore whether other teacher characteristics significantly correlated with perceptions for control purposes.

The study was both descriptive and experimental in type. The descriptive component consisted of a self-report research which was used to describe teachers' perceptions of gifted Hispanic LEP students and of gifted students in general. This component delineated teachers' perceptions

based on responses to a Likert-type attitude survey and on possible relationships between variables (e.g., between responses and teacher demographic variables). The experimental component of the study used a 2 (survey group) x 3 (ethnicity) factorial design based on the posttest-only control group design. Two randomly formed groups of teachers received the aforementioned survey; one of the groups receiving the survey labeled "Gifted Hispanic LEP" and the other group receiving the survey labeled "Gifted."

A stratified random sample of elementary schools in DCPS was selected for the study. The schools were stratified by ethnic membership of teachers and students. A criterion was set for the selection of schools that were representative of the ethnic makeup of the teachers (i.e., at least 20% Hispanic) and students (i.e., at least 40% Hispanic). Schools meeting this criterion were randomly drawn from a table of random numbers. A total of nine schools took part in the study.

The participating teachers were asked to anonymously complete the survey during faculty meetings at their respective schools. Randomly, one-half of the teachers in each school received survey Form A (Gifted Hispanic LEP) and the other half received Form B (Gifted in General). The teachers were not made aware that they were given different forms of the survey.

Demographic Variables of Participants. Three-hundred seventy-three teachers participated in the study. One-

hundred eighty-eight subjects completed the Gifted Hispanic LEP survey, and 185 completed the Gifted in General survey. The ethnic breakdown of the total sample included 162 Hispanic, 137 White, and 74 Black subjects. Results of cross-tabulations conducted show no significant differences between the two groups in gender ( $p=.32$ ), language background ( $p=.69$ ), level of education ( $p=.57$ ), years of teaching ( $p=.98$ ), nor ethnicity ( $p=.47$ ).

Major Findings. The data indicate that the following characteristics were rated highest by the subjects who completed the Gifted Hispanic LEP survey: (1) is curious ( $\bar{x}=3.82$ ), (2) likes to try new things ( $\bar{x}=3.68$ ), (3) is motivated to learn ( $\bar{x}=3.68$ ), (4) asks questions ( $\bar{x}=3.67$ ), (5) is observant ( $\bar{x}=3.67$ ), (6) is good at finding other uses for things ( $\bar{x}=3.65$ ), and (7) is creative ( $\bar{x}=3.64$ ). These subjects rated the item "is a good athlete" the lowest ( $\bar{x}=2.83$ ). Subjects who responded to the Gifted in General survey rated the following characteristics the highest: (1) is curious ( $\bar{x}=4.22$ ), (2) is creative ( $\bar{x}=4.07$ ), (3) is observant ( $\bar{x}=4.06$ ), (4) asks questions ( $\bar{x}=3.95$ ), (5) is motivated to learn ( $\bar{x}=3.92$ ), (6) is good at finding other uses for things ( $\bar{x}=3.88$ ), and (7) likes to try new things ( $\bar{x}=3.87$ ). These subjects rated the item "speaks more than one language" the lowest ( $\bar{x}=2.31$ ).

Results of a two-way MANOVA indicate that there were overall significant differences by survey group ( $p<.005$ ) and by ethnicity ( $p=.001$ ). However, no overall multivariate

significant interaction effect was found ( $p=.211$ ). The data indicate that there were significant univariate differences between survey groups in 21 of the 34 items. Items with the most significant differences in mean responses by survey group were (1) speaks more than one language, (2) is a good dancer, (3) can play a musical instrument, (4) has a large vocabulary, and (5) is a good athlete ( $p<.005$ ). The Gifted Hispanic LEP group rated the item "speaks more than one language" ( $\bar{x}=3.34$ ) significantly higher than the Gifted in General group ( $\bar{x}=2.31$ ). The Gifted in General group rated the item "has a large vocabulary" significantly higher ( $\bar{x}=3.72$ ) than the Gifted Hispanic LEP group ( $\bar{x}=3.17$ ). The Gifted in General group rated the items "is a good athlete" ( $\bar{x}=2.37$ ), "can play a musical instrument" ( $\bar{x}=2.44$ ), and "is a good dancer" ( $\bar{x}=2.47$ ) significantly lower than the Gifted Hispanic LEP group ( $\bar{x}=2.84$ ,  $\bar{x}=2.91$ , and  $\bar{x}=3.01$  respectively).

A comparison of a rank ordering of mean responses for both survey groups indicates that the means in the Gifted in General group were greater for the highest ranked items and lower for the lowest ranked items than the means in the Gifted Hispanic LEP group. The data also indicates that the highest ranked items were similar for both groups. The item "is curious" was rated the highest in both groups. While the item "speaks more than one language" was rated the lowest in the Gifted in General survey group, the rank order for this item in the Gifted Hispanic LEP survey group was



19th out of the 34 items ( $\bar{x}=3.34$ ).

According to a Spearman rho test, a correlation coefficient of +.85 was found ( $p<.005$ ), indicating a significant positive correlation between the rankings in the two survey groups. However, three items showed some differences in the rankings. Item 14, "has a large vocabulary," was ranked 11th in the Gifted in General group and 26th in the Gifted Hispanic LEP group. As mentioned earlier, item 17, "speaks more than one language," was ranked 34th in the Gifted in General group and 19th in the Gifted Hispanic LEP group. Item 24, "expresses him/herself well orally," was ranked 12th in the Gifted in General group and 23rd in the Gifted Hispanic LEP group.

There were significant differences based on ethnicity in 14 out of the 34 items. Items with the most significant differences in mean responses included "likes to study" ( $p=.002$ ), "is interested in a variety of things" ( $p=.003$ ), "does well in school" ( $p=.004$ ), "works well with others" ( $p=.008$ ), and "is a good listener" ( $p=.010$ ). Results of a Tukey post-hoc test ( $p=.05$ ) indicate that the mean responses to the items "likes to study" and "does well in school" were significantly higher for Blacks and Hispanics than for Whites. The mean responses to the items "is interested in a variety of things," "works well with others," and "is a good listener" were significantly higher for Hispanics than for Whites.

Two additional MANOVAs were conducted on the Hispanic

subgroup, to control for the effect of differences among these respondents. Results indicated that there were no significant differences between Hispanics based on whether they were born in the U.S. versus foreign born. There were also no significant differences based on the number of years that foreign born Hispanics resided in the U.S.

Other Findings: Responses to Open-ended Question. An open-ended question included at the end of the survey asked respondents to indicate what makes a gifted student unique. Responses were typically the same as those rated highest in the survey items. Subjects tended to respond that a gifted child is unique in terms of curiosity, creativity, motivation to learn, trying new things, and solving problems. The most mentioned characteristic was creativity ( $n=43$  or 15.3%). The second most mentioned characteristic was that of curiosity ( $n=35$  or 12.5%). A few of the respondents who completed the Gifted Hispanic LEP survey wrote specific statements about LEP students. Some of these indicated that there was no difference between LEP gifted students and gifted students in general. Others stated they had never worked with an LEP student.

### Conclusions

The first issue the study addresses is the perceptions of teachers on the characteristics of gifted students who are classified as Hispanic LEP. Results indicate that teachers rate the following to be the most important characteristics of such students: (1) is curious, (2) likes

to try new things, (3) is motivated to learn, (4) asks questions, (5) is observant, (6) is good at finding other uses for things, and (7) is creative. These findings are consistent with those found in the study by Márquez et al. (1992) on community perceptions of gifted Hispanic LEP students. It appears that teachers' perceptions in terms of the important (highest rated) characteristics of gifted Hispanic LEP students are similar to the Hispanic community's perceptions of such students. However, this conclusion is limited only to those characteristics perceived to be most important. Furthermore, the conclusion is tentative due to (a) the small sample size in the Márquez et al. study ( $n=85$ ), which limits the generalizability to the entire Hispanic community, and (b) the lack of similar studies.

The second issue this study addresses is the perceptions of teachers on the characteristics of gifted students in general. According to the results, teachers rate the following to be the most important characteristics of such students: (1) is curious, (2) is creative, (3) is observant, (4) asks questions, (5) is motivated to learn, (6) is good at finding other uses for things, and (7) likes to try new things. These characteristics correspond to those described in the literature on giftedness (Berg & Sternberg, 1985; Lehwald, 1990; Renzulli, 1978; Spence & Helmreich, 1983; Torrance, 1979; Torrance & Wu, 1981). The study's findings regarding the perceived importance of

curiosity and creativity support the findings by Awanbor (1991), Schack and Starko (1990), and Singer et al. (1992) on teachers' perceptions. The results on the perceived importance of motivation also support findings from the studies by Schack and Starko (1990) and Singer et al. (1992).

The above-mentioned results from the study are also very similar to those in the research by Márquez et al. (1992). However, conclusions on the relationships between both of these studies may be limited because the Márquez et al. study strictly focussed on community perceptions of gifted Hispanic LEP students. As a tentative conclusion, a comparison of findings from both studies suggests that certain gifted characteristics (e.g., curiosity) are perceived similarly regardless of the type of student considered. This conclusion is indefinite due to the small sample size in the Márquez et al. study and lack of similar studies, as mentioned earlier.

The third issue the study addresses is whether there are differences between perceptions on the characteristics of gifted students in general and those of gifted Hispanic LEP students. The findings indicate that there are both similarities and differences in perceptions. Overall, teachers tend to view the characteristics of both kinds of students similarly in terms of the characteristics' relative order of importance. However, there are significant differences in their perceptions of characteristics related

to language, and in the degree to which characteristics are rated as important for both types of students.

Characteristics with the most significant differences in perceptions include (1) speaks more than one language, (2) is a good dancer, (3) can play a musical instrument, (4) has a large vocabulary, and (5) is a good athlete.

The data indicate that perceptions regarding which types of characteristics are the most (and least) important to teachers are somewhat similar regardless of the type of student (gifted Hispanic LEP vs. gifted in general) with few exceptions (e.g., "speaks more than one language"). For example, teachers perceive the characteristic "is curious" as the most important, regardless of whether the student is gifted in general or Hispanic LEP gifted.

However, the findings indicate that relative importance varies in characteristics that are language related. For example, the characteristics "has a large vocabulary" and "expresses himself/herself well orally" are perceived by teachers to be significantly more important for gifted students in general than for gifted Hispanic LEP students. These findings are not surprising due to the fact that gifted Hispanic LEP students are limited in English vocabulary and oral expression. Based on the results it is concluded that teachers perceive gifted characteristics related to language differently if they are made aware of the student's linguistic background. It is also tentatively concluded that certain language-related characteristics may

be biased against Hispanic LEP students. The findings lend support to the recommendation by Bermúdez and Rakow (1990) that identification procedures must take into account linguistic variables that could cloak giftedness in Hispanic LEP students.

Conversely, the data indicate that teachers perceive the ability to speak more than one language the least important characteristic of gifted students in general, but rate it significantly higher for gifted Hispanic LEP students. This finding is not surprising given that (a) gifted Hispanic LEP students will need to speak a second language (English) in school, (b) the ability to speak more than one language as a characteristic of giftedness is not addressed in the general gifted literature, and (c) non-LEP students do not need to speak two languages to excel in school.

The degree to which teachers find characteristics to be important (or not) also differs based on the type of student. The findings indicate that teachers generally rate characteristics of giftedness higher for gifted students in general than for gifted Hispanic LEP students. Similarly, teachers rate the less important characteristics lower for the gifted in general students than for gifted Hispanic LEP students. These findings are similar to other research findings which suggest that teachers' evaluations of students are influenced by information provided about the student's ethnic background (Guttmann & Bar-Tal, 1982;

Prieto & Zucker, 1981; Zucker & Prieto, 1977). It is concluded that different teacher perceptions of gifted characteristics can be formed by providing information about the student's background (e.g., gifted Hispanic LEP vs. gifted in general). It is also concluded that teachers are more certain about the characteristics of gifted students in general than that of gifted Hispanic LEP students. This may be due to lack of exposure to gifted Hispanic LEP students, as indicated in a few of the responses to the open-ended question of this study (see response numbers 178, 209, 220, and 241 in Appendix J). As suggested by Hany (1993), a teacher may consider a student gifted only when the student resembles gifted students in which the teacher has had contact with.

Findings also indicate that teachers do not view artistic, musical, and kinesthetic abilities as important characteristics of giftedness, regardless of the type of gifted student. However, they view these characteristics more favorably (although still somewhat low) for gifted Hispanic LEP students. Although these findings do not lend support to the findings by Guskin et al. (1988) that teachers perceive giftedness in terms of Gardner's (1983) multiple intelligences, they do provide tentative support to the findings by Guskin et al. (1992) that teachers could become sensitive to Gardner's multiple intelligences if they are exposed to information (e.g., ethnicity) about the student. It is possible that teachers' perceptions of

gifted students have been influenced by traditional, established conceptions of giftedness (e.g., Renzulli, 1978), regardless of the type of student. It is also possible that a stereotypic impression can influence how teachers rate a student. The findings provide some support to those by Guttman and Bar-Tal (1982) that teachers may differentially evaluate individuals on the basis of ethnic origin.

The fourth issue addressed in the study is whether teachers' perceptions differ based on their ethnicity. Findings indicate that perceptions do indeed differ by ethnicity. For example, the data indicate that Blacks and Hispanics perceive "likes to study" and "does well in school" to be more important characteristics of giftedness than Whites. Hispanics view the characteristics "is interested in a variety of things," "works well with others," and "is a good listener" as more important than Whites. No specific pattern in the type of responses is noted (e.g., language related items). However, overall it appears that Hispanics tend to rate the characteristics in the survey higher than the other two ethnic groups, and some differences among all three ethnicity groups exist. These findings collaborate with conceptions which propose that areas of giftedness are determined by culture (Gardner, 1993; Feldhusen, 1992). They also lend tentative support to research suggesting the identification of giftedness based on characteristics valued by the student's culture (Bernal,



1976; Torrance, 1978; Márquez et al., 1992).

Findings also indicate that differences in teacher ratings on the characteristics of gifted students in general versus gifted Hispanic LEP students are not moderated by the teacher's ethnicity. It appears that the effect of ethnicity on perceptions is the same, regardless of the type of student. To date, there is no previous research to establish a moderating effect between ethnicity and the perceptions of gifted students in general versus gifted Hispanic LEP students. Only one study has suggested that teachers rate students differently when they are from other ethnic backgrounds than their own (Tobias et al., 1982). However, that study deals with referrals for special education evaluations and not for gifted programs.

Finally, results indicate that responses by Hispanic teachers do not vary significantly based on whether they were born in the U.S. or foreign born. Furthermore, the data indicate that foreign born Hispanics do not perceive gifted characteristics differently based on the number of years residing in the U.S. It appears that perceptions of Hispanic teachers do not vary due to demographic differences within this subgroup. This conclusion, however, applies only to variables analyzed in this study (i.e., U.S. born vs. foreign born; years in the U.S.) and may be limited to Hispanic teachers who are similar to the Hispanic population in this study.

The findings from the study are valid and accurate

because threats to internal and external validity are well controlled by the research design (posttest-only control group). Furthermore, any extraneous variables that might affect participants' responses are equalized by the randomization used in the study. However, the diverse ethnic population in DCPS is a variable of the study that may limit the generalizability of results.

#### Implications for Practice

The results of this study have practical implications for teachers, parents, psychologists, administrators, and policymakers who could play a key role in the identification of the gifted Hispanic LEP students. Teachers are essential to this identification because they are frequently involved both in the nomination and evaluation of the gifted student. Failure to nominate the student may prevent the assessment process to go any further. Moreover, even if the student is nominated, the eligibility criteria for admission to the program often require high ratings by the teacher on a checklist of gifted student characteristics. The decision to nominate or not, to rate a student highly or not, is influenced by the teacher's perceptions of gifted characteristics, as most decisions made by people are based on their beliefs (Bandura, 1986).

The findings of the study indicate that teachers perceive giftedness differently for Hispanic LEP students than for gifted students in general when considering language-related characteristics. Teachers should be aware

that the gifted Hispanic LEP students' limited English skills may cloak their giftedness. Teachers should keep this in mind when deciding whether they should nominate the student and when rating the student on a nomination scale. They need to be aware that rating scales may contain language-related items that may be biased toward LEP students. Ratings of LEP students on these items must be conducted with the student's native language skills in mind, rather than English.

The findings indicate that there are differences in the degree to which teachers rate certain gifted characteristics as important for each type of student mentioned above. It appears that they are relatively more uncertain about the characteristics of gifted Hispanic LEP students than those of gifted students in general. Teachers must be aware of the fact that their own perceptions of giftedness may not apply to all cultural groups, areas of giftedness, or types of students (e.g., LEP).

Results of the study indicate that teachers generally perceive as important those characteristics emphasized in the traditional gifted literature (e.g., Terman, 1925), while they do not perceive to be important some of those addressed by recent scholars, such as musical skills (see, e.g., Gardner, 1993). These results imply that teachers may be acculturated to the typical, theoretical conceptions of giftedness. As such, they may not consider it important to notice characteristics that fall outside of the traditional

notions of giftedness.

Parents of Hispanic LEP students could help supply pertinent information about their children that may be overlooked by the teacher. They know their children better than anyone else and, accordingly, can contribute an abundance of information to the nomination and identification process. However, parents of Hispanic LEP students may know little about how to get their children identified for gifted programs. Findings from a study by Scott et al. (1992) confirm this possibility. Results of that study indicate that the percentage of White parents who requested testing for possible gifted placement for their children in DCPS was significantly greater than for Hispanic and Black parents. School districts that under-identify Hispanic LEP students should consider providing training activities targeted for parents of such students to improve the nomination process for these students. Such training could include information about the nomination process, characteristics of giftedness, eligibility criteria, and program options.

Psychologists who evaluate these children must be aware of the limitations of teacher rating scales when interpreting data from these scales, especially if they are not normed locally. They should make sure teachers are rating characteristics in terms of the student's native language when interpreting the data. They should be cognizant of the differences in teacher perceptions, as

found in this study, which may result in differentiated ratings of Hispanic LEP students. They should be aware that teachers of different ethnic groups may rate gifted characteristics differently, as indicated by this study. Furthermore, they should consider relevant information from a variety of sources, including the student's parents, when collecting and interpreting data concerning the student's learning characteristics.

Assistant principals, principals, and exceptional student education directors, who participate in eligibility staffing committees as local educational agency representatives (LEA), should be cognizant of the problems with the gifted rating scales mentioned above, including the bias of language-related items and ratings that may be based on English language skills. They also need to ensure that parents of Hispanic LEP students are effectively involved in the identification process. They should take whatever steps are necessary so parents can participate effectively in eligibility staffing committee meetings, including the provision of qualified interpreters at these meetings. They need to proactively encourage the parents to take part in the meetings so parents can provide needed information about the learning characteristics of their children.

State and local education policymakers should be cognizant of the possible reasons for the under-identification of gifted Hispanic LEP students, such as the traditional perceptions of giftedness and the biases that

can exist in the nominations. Policymakers at the state level need to ensure that giftedness is defined in a way that allows for cultural-linguistic differences so gifted Hispanic LEP students may be nominated based on their individual accomplishments and characteristics, regardless of English language proficiency. Policymakers at the state and local levels need to make sure that nomination procedures take into account the Hispanic LEP student's limited language proficiency. They need to make sure that professionals working with these students are aware of cultural/linguistic biases that may occur in the nomination of these students.

State and local education agencies need to ensure that rating scales, such as the ones in DCPS, are normed locally as suggested by Renzulli et al. (1976), so the identification process is valid and non-discriminatory. Renzulli and his colleagues have good reasons for making such a recommendation, as the instrument (which is identical to the one used in DCPS) was normed on a sample of 98% White and 2% Black students (Renzulli et al., 1976). No Hispanic students participated in the standardization. Furthermore, an analysis of the items used in this scale suggests that there are several language-related items that may be biased against gifted Hispanic LEP students. The following are examples of these items, which will serve to demonstrate this point:

Has unusually advanced vocabulary for his age or

grade level; uses terms in a meaningful way; has verbal behavior characterized by 'richness' of expression, elaboration and fluency.

Can express himself well; has good verbal faculty and is usually well understood.

Is uninhibited in expressions of opinion ...

(Renzulli et al., 1976, pp. 159-161)

Findings of the present study and other research (Robinson et al., 1990; Terman, 1925) indicate that teachers perceive language abilities to be important characteristics of giftedness in general. These findings may have negative implications for gifted Hispanic LEP students because research has found that it typically takes 2 to 3 years for these students to attain basic interpersonal communication skills and 5 to 7 years for academic/cognitive language proficiency (Collier, 1989). In practice, teachers may erroneously rate the Hispanic LEP student in terms of the student's English language skills and not his or her native language. Additionally, because most gifted programs provide the curriculum in English (Bermúdez et al., 1991), the teacher could well base the decision to nominate the student on how well the student performs in English. State and local education agencies may wish to consider providing bilingual gifted programs, to encourage nominations of Hispanic LEP students based on their native language skills, rather than in English only.

The study's findings also have implications for teacher

education programs at institutions of higher learning and school districts. They can play a role in ensuring that preservice and inservice teachers, psychologists, and administrators are trained to identify gifted Hispanic LEP students. These programs can also play a role in the preparation of teachers for bilingual gifted programs.

Under the Lulac et al. Consent Decree, all public school instructional personnel in the State of Florida, including those mentioned above, must be trained to work with LEP students. This training can be provided through coursework at institutions of higher learning and inservice offered by school districts. Such training should include information about (a) new conceptions of giftedness (e.g., Gardner, 1993), (b) the learning characteristics of Hispanic LEP students, and (c) language biases that can occur in the use of teacher rating scales.

#### Recommendations for Further Research

To date, the present study is the only one that has explored whether teachers' perceptions of gifted Hispanic LEP students differ from those of gifted students in general. It is also the only one to investigate whether the teacher's ethnicity corresponds to his or her perceptions about gifted characteristics. The study should be replicated in other school districts to further confirm the findings. It is recommended that such replication take place in school districts that are not as ethnically diverse as DCPS, to establish greater generalizability. It is also



recommended that a similar study be repeated at the secondary level to determine if the findings are similar at that level.

The findings of the study indicate that teachers' perceptions vary in characteristics that are related to language. These findings suggest that certain language-type characteristics are biased against gifted Hispanic LEP students. Research should be conducted to determine whether teachers in reality rate Hispanic LEP students in terms of their native language skills or their English skills. The findings also suggest that teachers' perceptions are consistent with traditional conceptions of giftedness. Research should be undertaken to investigate whether these conceptions are influenced by training and experience. For example, a study can be conducted to determine if the perceptions of preservice teachers differ from inservice teachers, and to learn whether teachers' perceptions are influenced by experiences attained while working in schools.

The findings mentioned above imply that potential problems could exist with teacher nominations of Hispanic LEP students for gifted programs. Research is needed to establish whether problems exist in the referral stage, in the teacher's ratings, or both. Studies should be conducted to determine if Hispanic LEP students are referred in similar percentages to non-Hispanic, non-LEP students; and whether those referred are found eligible in similar proportions. Studies should also be conducted to

investigate whether there are differences between the ratings of referred Hispanic LEP students and those of non-Hispanic, non-LEP students.

Given the problems that may exist with nomination scales and the invalid nature of IQ tests for LEP students, future studies should investigate alternative forms of assessment such as the ones suggested by Gardner (1983) and Gonzalez and Yawkey (1993). For example, Gardner suggests collecting data about student performance in different settings and in a variety of domains (e.g., linguistic, musical, spacial, etc.). Gonzalez and Yawkey propose a developmental model of assessment in which individual potential can be expressed differently in various sociocultural environments. They suggest the development of awareness of educators' attitudinal biases when making diagnostic decisions. Future studies on alternative assessment models can explore whether such models can influence diagnostic decisions that affect the eligibility of LEP students for gifted programs.

As an extension of the present study, future research should investigate (a) whether the characteristics found to be important in this study correspond with actual teacher ratings of students for gifted programs and (b) whether language related items which were rated relatively lower for gifted Hispanic LEP students in the present study are actually rated lower by teachers in practice.

The findings of the study in terms of the important

(highest rated) characteristics of both gifted Hispanic LEP students and gifted students in general are similar to those of Márquez et al. (1992). That study assessed the Hispanic community's perceptions of gifted Hispanic LEP students. A comparison of findings from both studies suggests that teachers and the Hispanic community have similar perceptions about certain gifted characteristics (e.g., curiosity), regardless of the type of student considered. Further research should be conducted to compare teachers' perceptions of giftedness with those of ethnic communities.

Similarly, studies should further explore the perceptions of giftedness among teachers of diverse ethnic groups. The findings of the present study indicate that perceptions of gifted characteristics differ by teacher ethnicity. Although no specific pattern is noted in the types of responses that differed, overall it appears that Hispanic teachers tend to rate the characteristics in the survey higher than the other two ethnic groups, and some differences among all three ethnicity groups exist. Further research is needed to establish if there are any specific characteristics or domains (e.g., mathematics) that are perceived to be more (or less) important by teachers of particular ethnic backgrounds.

The findings of the present study also indicate that differences in teacher ratings on the characteristics of gifted students in general versus gifted Hispanic LEP students do not interact with the teacher's ethnicity. To

date, this study is the only one to investigate the interactive effect between teacher ethnicity and the perceptions of gifted students in general versus gifted Hispanic LEP students. Further research on this effect should be conducted to confirm the above-mentioned findings.

Research should also be conducted to explore the perceptions of gifted characteristics within ethnic groups. The findings of the present study suggest that perceptions of Hispanic teachers do not vary due to demographic differences within this subgroup. However, this may apply only to variables analyzed in this study (i.e., U.S. born vs. foreign born; years in the U.S.) and to Hispanic teachers who are similar to the Hispanic population in this study. Further research should be conducted to investigate whether other variables such as the Hispanic teachers' country of ancestry correspond to their perceptions of giftedness and whether Hispanic teachers in other parts of the U.S. have similar perceptions.

Future studies should also investigate other teacher factors that could correspond to perceptions of gifted characteristics. A similar study to the present one could be conducted to explore whether perceptions of gifted Hispanic LEP students and gifted students in general vary based on the teacher's subject area.

Another interesting finding from the present study is the subjects' reference to male versus female gifted students in responses to the open-ended question. Although

this finding is not directly related to the study's research questions, it does provide information worthy of further inquiry. Future research should explore the relationship between teachers' perceptions of giftedness and the student's gender.

Last, but not least, the findings of the study may have implications for other minority children such as Blacks. Future studies should be conducted on the perceptions of teachers on the characteristics of these children.

In conclusion, as the number of Hispanic LEP students continues to increase, it is hoped that more studies are undertaken to find better ways of identifying gifted individuals from among this group. The inquiry into the classroom teacher's perceptions should assist in this endeavor.

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APPENDIX A

DADE COUNTY PUBLIC SCHOOLS  
Gifted Eligibility Determination Form

FOR USE WITH UNDERREPRESENTED CHILDREN ONLY

Student _____	ID # _____	School _____
Date _____	DOB _____	Race/Ethnicity _____ Sex _____

- I. A majority of characteristics of gifted children according to the teacher rating scale. \_\_\_\_
- II. Need for a special program. \_\_\_\_
- III. If a student obtains a score equal to or higher than the 98th percentile on any of the following areas, the student meets the eligibility criteria for the gifted program.
  - A. Intellectual Quotient (e.g., Weschler Part or Full Scale of 130)  
Test \_\_\_\_\_ IQ/Composite (P/FS) \_\_\_\_\_
  - B. Achievement Scores, e.g., Stanford Achievement Test (SAT)  
SAT Reading Comprehension % \_\_\_\_\_ or Math Applications % \_\_\_\_\_
  - C. Creativity: Torrance % \_\_\_\_\_
- IV. Gifted Matrix to be applied if student does not meet criteria based on above scores.

*Matrix Scoring System*

	Superior 4	Excellent 3	High Average 2	Above Average 1	Average 0	Score
Intellectual Abilities	125-129 4	119-124 3	116-118 2	112-115 1	Below 112 0	
Achievement Skills*	95-97 4	90-94 3	85-89 2	80-84 1	Below 80 0	
Creativity (Torrance)	95-97 4	90-94 3	85-89 2	80-84 1	Below 80 0	
Teacher Rating-Scales	148-156 4	140-147 3	133-139 2	125-132 1	Below 125 0	
Eligibility requires a total score of 9 or higher, in a maximum of three of the four categories.						<b>TOTAL SCORE</b>

*\*Highest % in Reading Comprehension or Math Application*

# DADE COUNTY PUBLIC SCHOOLS

## Teacher Nomination Form Gifted Programs - Rating Scale

Student's Name \_\_\_\_\_ Grade \_\_\_\_\_  
 School \_\_\_\_\_ Date \_\_\_\_\_  
 Completed by \_\_\_\_\_ Position \_\_\_\_\_

### LEARNING CHARACTERISTICS

1. Has unusually advanced vocabulary for age or grade level; uses terms in a meaningful way; has verbal behavior characterized by "richness" of expression, elaboration, and fluency.
2. Possesses a large storehouse of information about a variety of topics (beyond the usual interests of youngsters his age).
3. Has quick mastery and recall of factual information.
4. Has rapid insight into cause-effect relationships; tries to discover the how and why of things; asks many provocative questions (as distinct from informational or factual questions); want to know what makes things (or people) "tick".
5. Has a ready grasp of underlying principles and can quickly make valid generalizations about events, people, or things; looks for similarities and differences in events, people, and things.
6. Is a keen and alert observer; usually "gets more" out of a story, film, etc. than others.
7. Reads a great deal without being directed; usually prefers adult level books; does not avoid difficult material; may show a preference for biography, autobiography, encyclopedias, and atlases.
8. Tries to understand complicated material by separating it into its respective parts; reasons things out without assistance; sees logical and common sense answers.

Seldom	(1)	(2)	Occasionally	(3)	Frequently	(4)	Almost Always
TOTALS							



### MOTIVATIONAL CHARACTERISTICS

- 1. Becomes absorbed and truly involved in certain topics or problems; is perturbed in seeking task completion.
- 2. Is easily bored with routine tasks.
- 3. Needs little external motivation to follow through in work that is self-initiated.
- 4. Strives toward perfection; is self-critical; is not easily satisfied with quality of own products nor with the speed or accuracy of completion.
- 5. Prefers to work independently; requires little direction from teachers.
- 6. Is interested in many "adult" problems such as religion, politics, sex, race—more than usual for age level.
- 7. Often is self-assertive (sometimes even aggressive); stubborn in beliefs.
- 8. Likes to organize and bring structure to things, people, and situations.
- 9. Is quite concerned with right and wrong, good and bad; often evaluates and passes judgment on events, people, and things.

### TOTALS

(1)	(2)	(3)	(4)

### ACADEMIC CHARACTERISTICS

- 1. Completes work quickly and accurately.
- 2. Performs one grade level above current class placement in reading, mathematics, science or social studies.

### TOTALS

(1)	(2)	(3)	(4)

### CREATIVITY CHARACTERISTICS

1. Displays a great deal of curiosity about many things; is constantly asking questions about anything and everything.
2. Generates a large number of ideas or solutions to problems and questions; often offers unusual, unique, clever responses.
3. Is uninhibited in expressions of opinions; is sometimes radical and spirited in disagreement; is iconoclast.
4. Is a high risk taker; is adventurous and speculative.
5. Displays a good deal of intellectual playfulness; fantasizes; imagines ("I wonder what would happen if...?"); manipulates ideas (i.e., changes, elaborates upon them); is often concerned with adapting, improving and modifying institutions, objects, and systems.
6. Displays a keen sense of humor and sees humor in situations that may not appear to be humorous to others.
7. Is unusually aware of personal impulses/and is more open to the irrational (freer expression of feminine interest for boys, greater than usual amount of independence for girls); shows emotional sensitivity.
8. Is sensitive to beauty; attends to aesthetic characteristics of things.
9. Nonconforming; accepts disorder; is not interested in detail; is individualistic; does not fear being different.
10. Criticizes constructively; is unwilling to accept authorization pronounced without critical examination.

	Seldom (1)	Occasionally (2)	Frequently (3)	Almost Always (4)

TOTALS

### LEADERSHIP CHARACTERISTICS

1. Carries responsibility well; can be counted on to fulfill promises and usually does it well.
2. Is self confident with peers as well as adults; seems comfortable when asked to show work to the class.
3. Seems to be well liked by classmates.
4. Is cooperative with teacher and classmates; tends to avoid bickering and is generally easy to get along with.
5. Is expressive; has good verbal facility and is usually well understood.
6. Adapts readily to new situations; is flexible in thought and action and does not seem disturbed when the normal routine is changed.
7. Seems to enjoy being around other people; is sociable and prefers not to be alone.
8. Tends to dominate others; generally directs others in the activities.
9. Participates in most social activities connected with the school; can be counted on to be there if anyone is.
10. Excels in athletic activities; is well coordinated and enjoys all sorts of athletic games.

(1)	(2)	(3)	(4)

### TOTALS

Scoring of Gifted Rating Scales

LEARNING	X 1	X 2	X 3	X 4	Total
MOTIVATIONAL	X 1	X 2	X 3	X 4	Total
ACADEMIC	X 1	X 2	X 3	X 4	Total
CREATIVITY	X 1	X 2	X 3	X 4	Total
LEADERSHIP	X 1	X 2	X 3	X 4	Total
<b>RATING SCALE TOTALS</b>					

APPENDIX C

ORIGINAL SURVEY

\*SURVEY ON CHARACTERISTICS OF  
GIFTED AND TALENTED HISPANIC STUDENTS

by  
Márquez, Bermúdez, and Rakow (1992)

Dear Colleague: Please take a few minutes of your time to complete this questionnaire. Your valuable input will serve as a contribution to improve the education and assessment of Gifted Hispanic LEPs.

Occupation:

Place of birth:

If foreign, length of residence in U.S.:

Gender:           Male           Female

Please check the most appropriate answer:

Age group:                   18-25

26-35

36-45

46-55

56-65

over 65

Ethnic background: White (non-Hispanic)

Black

Asian

Hispanic

If you are Hispanic, specify country of ancestry:

Highest level of educational completed:

None                           Technical School

Elementary                   Junior College

Middle School               University

Secondary                   Graduate/Professional

Were you educated in the U.S.?           Yes           No

If you were not educated in the U.S. specify country:

Language(s) spoken at home:

Number of people who live in household:

What makes a gifted person unique?

\*reprinted with permission

Instructions: Rate the items below using the following scale:

1= Strongly disagree      2= Disagree      3= No opinion  
4= Agree      5= Strongly agree

A Gifted Hispanic.....

	1	2	3	4	5
1. is artistically talented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. is a good athlete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. is musically talented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. possesses leadership qualities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. is observant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. is creative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. is curious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. likes to read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. is motivated to learn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. is a good student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. shows interest primarily in one area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. is a good writer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. asks questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. is friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. is self-confident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. has a good sense of humor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. has a large vocabulary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. likes to do math problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. likes to do science experiments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- |     |  |                          |                          |                          |                          |                          |
|-----|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 20. | speaks English well                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. | speaks Spanish well                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. | speaks more than one language                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. | is polite                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. | is independent                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. | is a good listener                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 26. | works well with others                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 27. | finds many solutions to a problem              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 28. | likes to try new things                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 29. | is good at finding other uses for things       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 30. | expresses himself/herself well orally          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 31. | expresses himself/herself well in written form | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 32. | is good at explaining things                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 33. | likes school                                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 34. | does well in school                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 35. | likes to study                                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 36. | can sing                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 37. | can play a musical instrument                  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 38. | can draw                                       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 39. | can paint                                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 40. | is a good story teller                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- |   |                          |                          |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 41. is a good joke teller                   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 42. is good at reciting poetry              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 43. is a good dancer                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 44. is obedient                             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 45. is interested in a variety<br>of things | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

APPENDIX D

Permission Form for Adaptation and Utilization of  
Survey on Characteristics of  
Gifted and Talented Hispanic Students

Permission is given to Mr. Alberto T. Fernández, Doctoral Candidate, Florida International University, to adapt and use the instrument, "Survey on Characteristics of Gifted and Talented Hispanic Students." Said permission is granted under the condition that, in his dissertation, Mr. Fernández give proper credit to the authors of the instrument: Judith A. Márquez, PhD., Andrea B Bermúdez, PhD., and Steven J. Rakow, PhD.

Judith A. Márquez  
Signature

1-4-95  
Date



Permission Form for Adaptation and Utilization of  
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*Steven J. Rakow*  
Signature

1-5-95  
Date

*Good luck with  
your dissertation. Let  
me know what you find*

DR. STEVEN RAKOW  
UNIVERSITY HOUSTON/CLEAR LAKE  
2700 BAY AREA BLVD., BOX 310  
HOUSTON, TEXAS 77058

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*Steven J. Rakow*  
Signature

1-3-95  
Date

*Good luck with  
your dissertation. Let  
me know what you find*

DR. STEVEN RAKOW  
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HOUSTON, TEXAS 77058

APPENDIX E  
SURVEY ON CHARACTERISTICS OF HISPANIC  
LIMITED ENGLISH PROFICIENT GIFTED STUDENTS  
Form A

Dear Colleague: Please take a few minutes of your time to complete this questionnaire. Your valuable input will serve as a contribution to improve the education of Hispanic limited English proficient (LEP) gifted students.

Teaching assignment (Grade/Subject): \_\_\_\_\_/\_\_\_\_\_

Years of teaching: 0-5 \_\_\_\_\_ 6-10 \_\_\_\_\_ 11-15 \_\_\_\_\_ over 15 \_\_\_\_\_

Country of birth: \_\_\_\_\_

If foreign born, length of residence in U.S.: \_\_\_\_\_ years

Gender: Male \_\_\_\_\_ Female \_\_\_\_\_

Ethnic background:

Asian/American Indian \_\_\_\_\_ African-American \_\_\_\_\_ Haitian \_\_\_\_\_

Hispanic \_\_\_\_\_ White, non-Hispanic \_\_\_\_\_ Other \_\_\_\_\_

Highest degree earned:

Bachelor \_\_\_\_\_ Master \_\_\_\_\_ Specialist \_\_\_\_\_ Doctorate \_\_\_\_\_

Language background: bilingual English/Spanish \_\_\_\_\_

bilingual English/Creole \_\_\_\_\_

monolingual \_\_\_\_\_

other (please specify) \_\_\_\_\_

\*adapted with permission

Instructions: Rate the items below using the following scale:  
 1= Strongly disagree (SD)    2= Disagree (D)    3= Undecided (U)  
 4= Agree (A)    5= Strongly Agree (SA)

A gifted Hispanic LEP student.....	SD	D	U	A	SA
	1	2	3	4	5
1. is artistically talented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. is a good athlete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. is musically talented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. possesses leadership qualities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. is observant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. is creative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. is curious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. likes to read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. is motivated to learn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. is a good student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. asks questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. is friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. is self-confident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. has a large vocabulary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. likes to do math problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. likes to do science experiments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. speaks more than one language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. is independent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. is a good listener	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. works well with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	SD	D	U	A	SA
	1	2	3	4	5
21. finds many solutions to a problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. likes to try new things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. is good at finding other uses for things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. expresses himself/herself well orally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. is good at explaining things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. does well in school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. likes to study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. can play a musical instrument	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. can draw	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. is a good story teller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. is a good joke teller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. is good at reciting poetry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. is a good dancer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. is interested in a variety of things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What makes a gifted student unique as compared to his or her non-gifted peers?

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APPENDIX F  
SURVEY ON CHARACTERISTICS OF  
GIFTED STUDENTS  
Form B

Dear Colleague: Please take a few minutes of your time to complete this questionnaire. Your valuable input will serve as a contribution to improve the education of gifted students.

Teaching assignment (Grade/Subject): \_\_\_\_\_/\_\_\_\_\_

Years of teaching: 0-5 \_\_\_\_\_ 6-10 \_\_\_\_\_ 11-15 \_\_\_\_\_ over 15 \_\_\_\_\_

Country of birth: \_\_\_\_\_

If foreign born, length of residence in U.S.: \_\_\_\_\_ years

Gender: Male \_\_\_\_\_ Female \_\_\_\_\_

Ethnic background:

Asian/American Indian \_\_\_\_\_ African-American \_\_\_\_\_  
Haitian \_\_\_\_\_ Hispanic \_\_\_\_\_ White, non-Hispanic \_\_\_\_\_ Other \_\_\_\_\_

Highest degree earned:

Bachelor \_\_\_\_\_ Master \_\_\_\_\_ Specialist \_\_\_\_\_ Doctorate \_\_\_\_\_

Language background: bilingual English/Spanish \_\_\_\_\_

bilingual English/Creole \_\_\_\_\_

monolingual \_\_\_\_\_

other (please specify) \_\_\_\_\_

\*adapted with permission

Instructions: Rate the items below using the following scale:  
 1= Strongly disagree (SD)    2= Disagree (D)    3= Undecided (U)  
 4= Agree (A)    5= Strongly Agree (SA)

A gifted student.....	SD	D	U	A	SA
	1	2	3	4	5
1. is artistically talented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. is a good athlete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. is musically talented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. possesses leadership qualities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. is observant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. is creative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. is curious	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. likes to read	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. is motivated to learn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. is a good student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. asks questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. is friendly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. is self-confident	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. has a large vocabulary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. likes to do math problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. likes to do science experiments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. speaks more than one language	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. is independent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. is a good listener	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. works well with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	SD	D	U	A	SA
	1	2	3	4	5
21. finds many solutions to a problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. likes to try new things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. is good at finding other uses for things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. expresses himself/herself well orally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. is good at explaining things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. does well in school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. likes to study	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. can play a musical instrument	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. can draw	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. is a good story teller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. is a good joke teller	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. is good at reciting poetry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. is a good dancer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. is interested in a variety of things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

What makes a gifted student unique as compared to his or her non-gifted peers?

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# DADE COUNTY PUBLIC SCHOOLS

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OFFICE OF EDUCATIONAL ACCOUNTABILITY • 1500 BISCAYNE BOULEVARD, SUITE 225 • MIAMI, FLORIDA 33132

OCTAVIO J. VISIEDO  
SUPERINTENDENT OF SCHOOLS

HERBERT F. WEINFELD  
DISTRICT DIRECTOR  
OFFICE OF EDUCATIONAL ACCOUNTABILITY  
(305) 995-7501  
FAX: 995-7571

DADE COUNTY SCHOOL BOARD  
MS. BETSY H. KAPLAN, CHAIRMAN  
MR. G. HOLMES BRADDOCK, VICE-CHAIRMAN  
DR. ROSA CASTRO FEINBERG  
DR. MICHAEL KRCP  
MS. JANET R. MCALLEY  
MR. ROBERT RENICK  
MS. FREDERICA S. WILSON

April 13, 1995

Mr. Alberto T. Fernandez  
7901 S. W. 132 Avenue  
Miami, Florida 33183

Dear Mr. Fernandez:

I am pleased to inform you that the Research Review Committee of the Dade County Public Schools (DCPS) has approved your request to conduct the study, "Perceptions of Elementary School Teachers in Dade County, Florida on the Characteristics of Hispanic Limited English Proficient Gifted Students." The approval is granted with the following conditions:

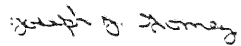
1. Participation of a school in the study is at the discretion of the principal. A copy of this approval letter must be presented to the principal.
2. Teacher participation is voluntary. It must occur during planning or other non-teaching time, and will not exceed 15 minutes per teacher.
3. The anonymity and confidentiality of all subjects must be assured.
4. The DCPS internal school mail system cannot be used in conducting the study.

It should be emphasized that the approval of the Research Review Committee does not constitute an endorsement of the study. It is simply a permission to request the voluntary cooperation in the study of individuals associated with the DCPS. It is your responsibility to ensure that appropriate procedures are followed in requesting an individual's cooperation, and that all aspects of the study are conducted in a professional manner. With regard to the latter, make certain that all documents and instruments distributed within the DCPS as a part of the study are carefully edited.

The approval number for your study is 407. This number should be used in all communications to clearly identify the study as approved by the Research Review Committee. The approval expires on June 7, 1995. During the approval period, the study must adhere to the design, procedures and instruments which were submitted to the Research Review Committee. If there are any changes in the study as it relates to the DCPS, it may be necessary to resubmit your request to the committee. Failure to notify me of such a change may result in the cancellation of the approval.

If you have any questions, please call me at (305) 995-7501. Finally, remember to forward an abstract of the study when it is complete. On behalf of the Research Review Committee, I want to wish you every success with your study.

Sincerely,



Joseph J. Gomez, Ph.D.  
Chairperson  
Research Review Committee

JJG/pw

APPROVAL NUMBER: 407

APPROVAL EXPIRES: 6/7/95

APPENDIX H  
LETTER TO PRINCIPALS

**Alberto T. Fernández**  
**7901 SW 132 Ave.**  
**Miami, FL 33183**

April 20, 1995

Dear Principal:

The Research Review Committee of the Dade County Public Schools (DCPS) has approved my request to conduct a research study designed to investigate the characteristics of gifted students. The purpose of this study is to improve the education of these students. Your school has been randomly selected to participate in the study. Your teachers will be asked to complete a brief survey on the characteristics of gifted students. Participation is voluntary, and results will be kept confidential. The participants will not be asked to reveal their names. Completion of the survey will take approximately 15 minutes. The findings will be shared with the school system. Hopefully, the results will assist in enhancing the education of gifted students.

I will be directly responsible for the study's implementation, under the supervision of the following faculty members from the College of Education of Florida International University:

Rosa Castro Feinberg, Ph. D.

Blanca Garcia, Ed. D.

Marisal Reyes Gavilan, Ed. D.

Lorraine R. Gay, Ph. D.

Luretha F. Lucky, Ed. D.

The DCPS approval number for my study is 407. I will be contacting you to provide more information about this matter. In the meantime, if you have any questions, please contact me at 995-2372 (W) or 386-8665 (H). Thank you for your cooperation.

Sincerely,

Alberto T. Fernández

Appendix I

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1. is artistically talented					
HLEP	11(6.2%)	21(11.8%)	92(51.7%)	43(24.2%)	11(6.2%)
GG	8(9.8%)	62(33.9%)	60(32.8%)	37(20.2%)	6(3.3%)
2. is a good athlete					
HLEP	13(7.2%)	29(16.1%)	110(61.1%)	24(13.3%)	4(2.2%)
GG	26(14.2%)	83(45.4%)	61(33.3%)	11(6.0%)	2(1.1%)
3. is musically talented					
HLEP	9(5.1%)	24(13.5%)	105(59.0%)	36(20.2%)	4(2.2%)
GG	19(10.4%)	73(39.9%)	67(36.6%)	23(12.6%)	1(.5%)
4. possesses leadership qualities					
HLEP	6(3.3%)	20(11.1%)	75(41.7%)	60(33.3%)	19(10.6%)
GG	12(6.6%)	27(14.8%)	38(20.8%)	80(43.7%)	26(14.2%)

Appendix I (cont.)

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
5. is observant					
HLEP	5 (2.7%)	11 (6.0%)	52 (28.6%)	76 (41.8%)	38 (20.9%)
GG	5 (2.7%)	10 (5.4%)	18 (9.8%)	79 (42.9%)	72 (39.1%)
6. is creative					
HLEP	6 (3.3%)	11 (6.1%)	55 (30.1%)	70 (38.3%)	41 (22.4%)
GG	5 (2.7%)	15 (8.2%)	29 (15.8%)	78 (42.6%)	56 (30.6%)
7. is curious					
HLEP	4 (2.2%)	6 (3.3%)	47 (25.7%)	75 (41.0%)	51 (27.9%)
GG	5 (2.7%)	5 (2.7%)	10 (5.4%)	80 (43.5%)	84 (45.7%)
8. likes to read					
HLEP	7 (3.8%)	11 (6.0%)	64 (35.2%)	65 (35.7%)	35 (19.2%)
GG	5 (2.7%)	15 (8.2%)	35 (19.2%)	84 (46.2%)	43 (23.6%)

Appendix I (cont.)

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
9. is motivated to learn					
HLEP	6 (3.3%)	11 (6.1%)	47 (26.0%)	75 (41.4%)	42 (23.2%)
GG	5 (2.7%)	15 (8.2%)	29 (15.8%)	78 (42.6%)	56 (30.6%)
10. is a good student					
HLEP	7 (3.8%)	19 (10.4%)	72 (39.3%)	56 (30.6%)	29 (15.8%)
GG	8 (4.4%)	42 (23.0%)	51 (27.9%)	57 (31.1%)	25 (13.7%)
11. asks questions					
HLEP	5 (2.7%)	12 (6.6%)	50 (27.5%)	74 (40.7%)	41 (22.5%)
GG	5 (2.7%)	11 (6.0%)	27 (14.8%)	81 (44.3%)	59 (32.2%)
12. is friendly					
HLEP	5 (2.8%)	20 (11.4%)	72 (40.9%)	60 (34.1%)	19 (10.8%)
GG	7 (3.8%)	47 (25.8%)	87 (47.8%)	30 (16.5%)	11 (6.0%)

Appendix I (cont.)

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
13. is self-confident					
HLEP	4 (2.3%)	26 (14.7%)	71 (40.1%)	55 (31.1%)	21 (11.9%)
GG	4 (2.2%)	26 (14.3%)	56 (30.8%)	73 (40.1%)	23 (12.6%)
14. has a large vocabulary					
HLEP	7 (3.9%)	29 (16.2%)	72 (40.2%)	56 (31.3%)	15 (8.4%)
GG	3 (1.6%)	21 (11.5%)	26 (14.2%)	99 (54.1%)	34 (18.6%)
15. likes to do math problems					
HLEP	4 (2.2%)	20 (11.2%)	88 (49.2%)	45 (25.5%)	22 (12.3%)
GG	7 (3.8%)	48 (26.4%)	72 (39.6%)	46 (25.3%)	9 (4.9%)
16. likes to do science experiments					
HLEP	3 (1.7%)	18 (10.2%)	83 (47.2%)	52 (29.5%)	20 (11.4%)
GG	7 (3.9%)	37 (20.4%)	60 (33.1%)	62 (34.3%)	15 (8.3%)

Appendix I (cont.)

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
17. speaks more than one language					
HLEP	12 (6.7%)	32 (18.0%)	60 (33.7%)	42 (23.6%)	32 (18.0%)
GG	37 (20.4%)	68 (37.6%)	61 (33.7%)	11 (6.1%)	4 (2.2%)
18. is independent					
HLEP	5 (2.8%)	26 (14.4%)	65 (36.1%)	54 (30.0%)	30 (16.7%)
GG	5 (2.7%)	24 (13.2%)	41 (22.5%)	78 (42.9%)	34 (18.7%)
19. is a good listener					
HLEP	4 (2.2%)	21 (11.7%)	70 (38.9%)	59 (32.8%)	26 (14.4%)
GG	6 (3.3%)	36 (20.0%)	53 (29.4%)	62 (34.4%)	23 (12.8%)
20. works well with others					
HLEP	3 (1.7%)	23 (12.8%)	78 (43.6%)	54 (30.2%)	21 (11.7%)
GG	10 (5.5%)	46 (25.1%)	62 (33.9%)	49 (26.8%)	16 (8.7%)



Appendix I (cont.)

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
21. finds many solutions to a problem					
HLEP	3 (1.7%)	17 (9.4%)	67 (37.2%)	66 (36.7%)	27 (15.0%)
GG	3 (1.6%)	12 (6.5%)	30 (16.3%)	98 (53.3%)	41 (22.2%)
22. likes to try new things					
HLEP	5 (2.8%)	10 (5.5%)	61 (33.7%)	65 (35.9%)	40 (22.1%)
GG	4 (2.2%)	11 (6.0%)	27 (14.7%)	94 (51.1%)	48 (26.1%)
23. is good at finding other uses for things					
HLEP	2 (1.1%)	9 (5.0%)	60 (33.3%)	84 (46.7%)	25 (13.9%)
GG	2 (1.1%)	9 (4.9%)	39 (21.3%)	89 (48.6%)	44 (24.0%)
24. expresses himself/herself well orally					
HLEP	2 (1.1%)	32 (17.8%)	70 (38.9%)	58 (32.2%)	18 (10.0%)
GG	1 (.5%)	28 (15.3%)	40 (21.9%)	83 (45.4%)	31 (16.9%)

Appendix I (cont.)

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
25. is good at explaining things					
HLEP	5 (2.8%)	18 (10.1%)	81 (45.5%)	56 (31.5%)	18 (10.1%)
GG	2 (1.1%)	26 (14.2%)	48 (26.2%)	86 (47.0%)	21 (11.5%)
26. does well in school					
HLEP	5 (2.8%)	23 (12.7%)	74 (40.9%)	55 (30.4%)	24 (13.3%)
GG	4 (2.2%)	32 (17.6%)	46 (25.3%)	77 (42.3%)	23 (12.6%)
27. likes to study					
HLEP	3 (1.7%)	21 (12.0%)	82 (46.9%)	50 (28.6%)	19 (10.9%)
GG	6 (3.3%)	43 (23.6%)	60 (33.0%)	58 (31.9%)	15 (8.2%)
28. can play a musical instrument					
HLEP	8 (4.5%)	28 (15.6%)	119 (66.5%)	17 (9.5%)	7 (3.9%)
GG	26 (14.4%)	64 (35.4%)	79 (43.6%)	10 (5.5%)	2 (1.1%)

Appendix I (cont.)

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
29. can draw					
HLEP	6 (3.3%)	29 (16.1%)	95 (52.8%)	40 (22.2%)	10 (5.6%)
GG	19 (10.5%)	59 (32.6%)	77 (42.5%)	23 (12.7%)	3 (1.7%)
30. is a good story teller					
HLEP	4 (2.2%)	27 (15.2%)	90 (50.6%)	44 (24.7%)	13 (7.3%)
GG	15 (8.2%)	41 (22.5%)	66 (36.3%)	49 (26.9%)	11 (6.0%)
31. is a good joke teller					
HLEP	6 (3.4%)	30 (16.9%)	106 (59.6%)	27 (15.2%)	9 (5.1%)
GG	20 (11.0%)	51 (28.2%)	83 (45.9%)	21 (11.6%)	6 (3.3%)
32. is good at reciting poetry					
HLEP	4 (2.2%)	33 (18.5%)	109 (61.2%)	24 (13.5%)	8 (4.5%)
GG	16 (8.9%)	58 (32.2%)	78 (43.3%)	24 (13.3%)	4 (2.2%)

Appendix I (cont.)

Frequencies and Percentages of Responses to Items by Group

Item	Frequencies and Percentages				
	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
33. is a good dancer					
HLEP	4 (2.3%)	25 (14.1%)	121 (68.4%)	20 (11.3%)	7 (4.0%)
GG	22 (12.3%)	65 (36.3%)	85 (47.5%)	5 (2.8%)	2 (1.1%)
34. is interested in a variety of things					
HLEP	4 (2.2%)	10 (5.6%)	64 (36.0%)	70 (39.3%)	30 (16.9%)
GG	4 (2.2%)	17 (9.3%)	43 (23.6%)	85 (46.7%)	33 (18.1%)

Note. HLEP = Gifted Hispanic LEP group. GG = Gifted in General group.

APPENDIX J

Open-ended Responses

School Number 1

Responses to Hispanic LEP Gifted Survey

1. I.Q. (White)
2. They use (& think) higher processes to come up with solutions to problems. (White)
3. A gifted student usually possesses qualities of questioning and seeking many answers to a problem. The gifted student is usually motivated to participate in finding why? And what for? (White)
4. A gifted student is usually more creative, has unique perceptions, is able to look at things in different ways. Because some subjects come easy to them they may be bored in school. They may be talented in arts, music, and sports, but being gifted does not mean that they are. (White)
5. They are eager to learn new things and are curious about most things. (Black)
6. A gifted student's learning characteristics include large vocabulary, large storage of information, good insight into cause-effect relationships. They are highly self-motivated, work intensely when involved in an independent project and are usually creative. Most gifted children possess strong leadership skills. (White)

7. Most of the above-state qualities are possessed, but can be unorganized, not always verbal nor gifted in all areas, nor artistically inclined etc. Most are curious and accrue a zest for learning. (White)

8. Willingness to learn in a variety of ways; Ability to think on a creative level; Correlates all subjects; Interested in quality, not quantity; good problem solver. (Black)

9. A gifted student has abilities beyond his or her grade level. They challenge themselves to their best capacity. On the other hand, nongifted students are usually at grade level or below. They tend to perform at their own pace. They are not bored & gifted students usually are. (Hispanic)

10. His or her perceptions of things. To be different. To follow the format but add the personal touch. (Black)

11. It depends on child. No one can categorize a student just because he tests higher than others. (White)

#### School Number 1 (cont.)

#### Responses to Gifted in General Survey

12. A gifted student is unique as compared to his or her non gifted student because of his or her ability to adapt and strive for higher goals above his or her level. (Black)

13. Unless I'm faced with a specific gifted student &

answer for his/her qualities - to me this I unanswerable!

(White)

14. Higher I.Q. only - Creative thinking. (White)

15. The thought process. (Black)

16. A gifted student is more curious than other students and sometimes more creative. (White)

17. High verbal skills, curiosity, need to learn tactilely (w/hands on materials). Frequently is talented in art, music, etc. (White)

18. He can handle situations above normal aptitude. (Black)

19. Sophisticated (advanced) vocabulary. Great verbal skills. Creative/curious. Eager to learn. Good listener/independent worker. (Hispanic)

20. A gifted student is creative and curious. (Hispanic)

21. This survey is silly. A gifted child may exhibit all or none of the qualities listed & still be of gifted intelligence. There is no stereotypical gifted student.

There are only a few characteristics which USUALLY but not always define a gifted student - such as curiosity & desire to learn. (White)

22. A gifted student is unique when he possesses qualities and traits that surpass the norm. Intelligence along with other inherent or learned behaviors are on a level much higher than a typical learner. (Exceptional). (White)

23. They stand out from the others in positive ways. They are self-motivated, eager and enthusiastic learners. They strive, ponder question and probe. They have a wealth of background knowledge in various subjects. They appear to be deep thinkers at times and are usually very verbal! - clever. (White)

24. The special way in which he-she finds solutions to his-her problems. (Hispanic)

25. Gifted students may show talents in some of the above areas, but may not. A non-gifted student would be more average in the above skills. (White)

26. A gifted student is alert and ready to learn. They grasp new ideas quickly. They know how to learn. (White)

#### School Number 2

#### Responses to Hispanic LEP Gifted Survey

27. They are students that can learn under many different circumstances. (Hispanic)

28. I believe what makes them different is their inquisitive approach to situations. They look at problems on many different levels and want to know the how and why of things. (Hispanic)

29. Their abilities to learn by themselves from their surroundings. A gifted student needs guidance but does not necessarily need to be taught. (Hispanic)



30. He or she is usually very interested in a variety of things. (White)

31. He learns things more quickly and often in a different way. (White)

32. Level of creativity and desire for more challenging education is above non-gifted students. Their exceptional leadership qualities make them model students. (Hispanic)

33. A gifted student asks questions, is inquisitive and has the ability to investigate and explore on their own.

Gifted students are usually self-directed, creative and think for themselves. They are self-reliant. (White)

34. Is usually well-rounded in all subject areas. (White)

35. They are usually very motivated to learn new things. Their way of looking at a situation is usually very creative. (Hispanic)

36. I believe they like to try new things (generally). (Hispanic)

37. Only .5% of population is gifted. That's unique in itself. (White)

38. She/He is usually very verbal - his IQ is higher. Their vocabulary is about grade level and may be creative and usually loves to learn new things. (White)

39. Gifted students look at situations in many different ways. They are usually creative problem solvers.

Typically I would expect the gifted child to be creative and seek knowledge. However, I would hesitate to classify all gifted children the same way. (White)

40. A gifted student wants more. He/She wants to discover and learn more than others. He/She can understand and apply abstract concepts better. A gifted student may not be the most cooperative in a class setting but is a wonderful resource in discovery learning. New perspectives can always be viewed through a gifted student's eyes. (Hispanic)

41. Does not mind being different. Has a high self-esteem and is self confident. Possesses leadership qualities. Is creative and is a critical thinker. (Hispanic)

42. He/She does not worry about what others think or say about them. They are creative and will use many different avenues to get where they want to get. Extremely creative and critical thinkers. (Hispanic)

43. When brainstorming ideas in the classroom, this child usually comes up with some brilliant ideas. Also, this student enjoys being challenged with enrichment activities. They are always active mentally and become bored with activities which are not as challenging. (White)

44. The interest in which they take in a subject.  
(Hispanic)

45. An undeniable strength in a certain area, not

necessarily many areas and not necessarily the same areas as anyone else. (White)

46. He/She is not afraid to express his/her feelings or opinion. He/She is very competitive, and is cares about academic achievement. (Black)

47. His talents (whatever they maybe) will make that child unique not because they are Hispanic, LEP, or gifted. His or her talents should be developed and used as an advantage to that child; though he or she knows the talent they maybe possessed they must have a balanced academic environment with respect to others and the real world. (Other)

48. Because he/she expresses himself differently than the others and has common sense when you ask him/her any question. (Hispanic)

49. The gifted child has excelled in specific area (above the norms). Non-gifted peers usually perform within the norms. (Black)

50. LEP gifted student is usually curious about the things around him/her. They are usually always asking questions. (Hispanic)

51. A gifted student is usually the self motivated student, who has support from home and has been exposed to many outside experiences that enrich his learning. This student has a home that encourages him/her with his school

activities and has a supply of instructional materials, as well. (Hispanic)

52. With the gifted students I have, there is really no difference between them. I prefer non-gifted students.

(Hispanic)

53. That a gifted student can catch on to a new thing, without having it explained over and over again. Gifted students are more eager to learn than the non-gifted

student. (Black)

54. To have the ability to see some way or form to create and find an area or areas of specific interest and motivation to himself and grow within. (Hispanic)

55. Is greatly motivated. (Hispanic)

56. A gifted student usually reads a wide variety of subjects, is interested in a lot of things, is very verbal with a good vocabulary, maybe a leader, may like to study and be a good student, and/or may display talents in art, music, or athletics. (White)

57. Creativity; potential for learning on superior level. (White)

58. More motivated; seems to have a higher IQ than peers; more enthusiastic about school; learning; easily bored - reads more, eager to participate in class activities.

(White)

59. He is self-motivated. (Black)

60. Self-esteem and knowledge of language. (Hispanic)

School Number 2 (cont.)

Responses to Gifted in General Survey

61. I feel most gifted students have great self confidence and is very curious/inquisitive. (Black)

62. Their well roundedness in various areas and their constant drive to seek new answers and solutions. (White)

63. A gifted student sees possibilities beyond those stated. Sometimes beyond those within the teacher's concept of reality. A gifted student dares to think and question. (Not necessarily ask questions in class). (Hispanic)

64. A gifted student excels in one or more academic areas and may have a specific talent in an elective subject area (i.e., music, art, P. E., etc.). (Hispanic)

65. A gifted students tends to stand-out amongst non-gifted students. He/She will generally possess a quality that will automatically make them stand-out. (Hispanic).

66. He or she stands out in either a positive or a negative way from the average students. (Hispanic)

67. The ability to abstracting reason. (Black)

68. All children are unique. (Hispanic)

69. Has more curiosity about everything around himself.  
(Hispanic)

70. Gifted students are more aware of their surroundings. Their attention is more focused. Better imagination, more creative. (Hispanic)
71. A gifted student is always to learn. Is always curious and waiting to learn more than is expected. (Hispanic)
72. What the parents did (during; to; with or for) the (child) student in his/her early years. (Black)
73. His/her questions about different issues that are not relevant to the rest of the students. Opinions, way of thinking. Their attitude. (Hispanic)
74. Gifted students have a way of solving problems in many ways. They have creative minds and aren't afraid to express their creativity even if their ideas stray from the norm. (Black)
75. A gifted student is unique in his or her own way. They can excel in certain different subjects, can be talkative or quiet, motivated or not motivated. What makes them gifted in my opinion is their reasoning and the level of understanding. (Hispanic)
76. Self motivation. (Black)
77. Most gifted student have higher IQ's. They are able to grasp some concepts quicker than most other students. However, they too have strengths and weaknesses. They are

individual in their giftedness. Therefore, it would be different to generalize ideas about them and other students.

(Hispanic)

78. Critical thinking skills. Does not follow the norm. Very inquisitive. Arrives at solutions in an unconventional manner. (White)

79. Most of them like to discover new things. Also they like to be in different activities at the same time.

(Hispanic)

80. Gifted students like to discover more than others.

(Hispanic)

81. His natural curiosity, capacity for asking questions and high vocabulary skills. He/She often thinks critically.

(Black)

82. Curiosity about what and how things appears. (Black)

83. Tries to do things other students can't think of.

(Hispanic)

84. The ability and willingness the child has of wanting to find answers to various problems and the ability for always learning new things. (Hispanic)

85. Exceptional intellectual ability. Creative able to see things from more than 1 perspective. Curious about surroundings. (White)

86. He is eager to learn and is very unique. (Black)

87. They usually get deeper into the why of things more so than the regular student. It is easy to go beyond a given point in the lesson with this type of children. (Hispanic)
88. A gifted student is inquisitive and wonders about himself, others and the world in which he lives. He is interested in a variety of subjects and because of it is knowledgeable about many topics. (Hispanic)
89. Individual. Non-conformist. Unorganized. (Black)
90. Willing to learn, creative, motivated, has a tendency to find more than one solution to a problem, observant and adaptable. A gifted student is not necessarily artistically talented. (Hispanic)
91. His creativity and excellence. (Asian)
92. A gifted student has the ability to "catch on" to what is being discussed or taught quickly. A gifted student can expand on information given. (White)
93. His creativity, his motivation to learn and his curiosity. (Hispanic)
94. He/She excels in specific things. Could be just one thing and it doesn't have to be quantitative. Survey was not clear because a gifted student doesn't necessarily have to be anything. (Hispanic)
95. This child has the ability to learn at a faster rate in



whatever area they are talented and or interested in.

(Hispanic)

96. A gifted student has an above average intelligence and may be gifted at one or more areas. He is usually an enthusiastic reader has an above average vocabulary and is very inquisitive and creative. (Hispanic)

97. The constant yearning or devouring of information. They have the desire and motivation to get as much information on a particular subject as possible. In addition the gifted child will always find other ways of doing things. Problem solving is definitely a plus for them. They are truly interested in a multitude of subjects, books, ideas, etc. (Black)

98. Gifted students "play with" information which is presented to them. They get more out of it. A gifted child sees and makes connections on his own much more often than what is expected of a child his/her age. Finally, gifted children do not simply learn at a rapid rate. In many cases, they already know what is being taught. This is because, as previously written, they make their own "connections." (Hispanic)

99. Very curious about the world around him or her.

(Other)

100. He or she is able to perform a certain task better

than the non-gifted student. It comes naturally, be it in art, music, or a sport. It can also take place in the language arts or mathematics area. (Hispanic)

101. A gifted student is very inquisitive and is always trying to come up with ways to do thing better. (Hispanic)

102. His/her ability to understand and apply different concepts. (Hispanic)

103. A gifted student will go above and beyond what is expected of a child of the same grade and age. (Hispanic)

### School Number 3

#### Responses to Hispanic LEP Gifted Survey

104. The label. (Hispanic)

105. A gifted student is usually more creative and verbal than the non-gifted peers. (Hispanic)

106. His or her intelligence, his or her ability to analyze and come to a logical conclusion, is self-motivated. A genuine gifted child can be noted as being gifted in his or her own talent (intelligence and ability) without making concessions and changing the requirements to pack in non-gifted students that water-down and destroy the meaning of being gifted. Stanines 3 in math do not belong in gifted as we are now experiencing to have more minorities enter without 130 IQ. (White)

107. Gifted students appear to be far more advanced than

their peers, in that they catch on faster than the average students. It doesn't take them more than once to catch on to a new skill being taught. (Black)

108. I would think he would be a little more motivated and interested in learning. I see this student as a risk taker, not afraid to try or fail. (Black)

109. The gifted student expresses himself well orally and likes to try new things. (Hispanic)

110. This survey shows nothing to me! I will not fill out such a survey. (White)

111. High IQ scores only. (Hispanic)

School Number 3 (cont.)

Responses to Gifted in General Survey

112. The student shows his giftedness in a variety of ways. What makes one gifted and another gifted can vary greatly. Showing a creativity to problem solving is one indication. (White)

113. Ability to assimilate and process information. Thinks divergently and abstractly. (White)

114. The interaction for more question and answer sessions. (Black)

115. They can usually read "more" into most given situations - academically or otherwise, than children their own age. (White)

116. All human beings are unique in their own special way. A gifted student, most of the time, shows a great enjoyment in learning. (Hispanic)

117. Capabilities and interests. Gifted students should be self-motivated and adventurous. (White)

118. A gifted student is unique because he or she does well orally and independently, and is able to go beyond their assignments. (Black)

119. It is my professional opinion that the uniqueness of a gifted child is seen through his ability to express their thoughts freely, without inhibition. A student who exhibits all the gifted qualities of IQ and stanines that are high and that express true giftedness as well as obvious talents. (Hispanic)

120. They are very intelligent - i.e., High IQ. They are usually creative. They tend to be focused on an area of interest or project that they enjoy pursuing. But they are as much different in personality, talents, and problems as other less gifted persons. (White)

121. I think that a special ability or unique insight into any area of thinking or artistic endeavor or scientific area can be a reason for a child to be considered gifted. I also believe that the wording of the rating system can lead to a faulty conclusions being drawn. Gifted children do not all

have to possess all of these characteristics. But I do think that Undecided is not indicative of my true feelings. I do have an opinion. (White)

122. Ability to approach tasks at a higher level of critical thinking. Increased abilities in inductive and deductive reasoning. Frequently enjoys more challenging tasks than his/her peers. (White)

#### School Number 4

#### Responses to Hispanic LEP Gifted Survey

123. A gifted student can possess one or more of the above qualities. But every gifted student cannot do all of the above. It all depends on each individual. Each child is strong in his or her area. (Hispanic)

124. Higher order thinking skills. The ability to do abstract problems and make connections between seemingly unrelated things. (White)

125. A gifted student is unique because they find the uniqueness in the world. They are creative and articulate. They love to be challenged. (White)

126. A gifted student use higher level thinking skills easily, that is not to say that a non-gifted student does not. (Hispanic)

127. A gifted student may exhibit many of the questions described above. Whether he/she is a Hispanic LEP student

has no bearing on his/her giftedness. Once these qualities have been demonstrated, further evaluation should be conducted to determine giftedness. (White)

128. I can't answer the above questions. I am not undecided, I do not know. This is a useless survey and an insult to our intelligence. (White)

129. A talent to perform tasks in a unique way, which calls the attention of the observer. (Hispanic)

130. A gifted student is not simply "smarter" than other children. They have qualities which allow them to have high critical thinking skills. They express their intelligence in a variety of ways: artistically, musically, academically, etc. We should not overlook LEP students for gifted just because they are placed in an ESOL class. (White)

131. The student is curious, inquisitive, and extremely bright. (Black)

132. Think in more abstract terms. Can be more evaluative and diversified. (Hispanic)

133. The ability to see things in many different ways. We cannot generalize the basic personalities on characteristics of a gifted student. Some are very good students, while others are lazy. I have even seen shy students who have gifted ability. Being vocal is only part of being gifted. There are extreme qualities to a gifted student. (White)

134. The grasp of a content is much quicker than other students. (Hispanic)
135. He is maybe more curious, observant, more self confident. More independent, may like to try new things, may possess leadership qualities. (Hispanic)
136. A gifted student may take test better than his or her non gifted peers. (Black)
137. A gifted student is generally curious about his/her environment. They excel in some areas - academically, socially or physically - while possible being weak in other areas. (White)
138. The student is usually more intuitive. He or she can feel more pressured or stressed. (White)
139. Gifted students seem to be more verbal when communicating. They also seem to look at all sides of a situation or a skill being taught rather than just completing the task the teacher has assigned. (Hispanic)
140. Some one who is curious. Some one who goes the extra mile with their school work. A child that is a critical and creative thinkers. (White)
141. I feel it is difficult to generalize about any gifted student. As individuals they display a range which can go from one or the other side of the scale depending on their unique talent. (White)

142. His need of always getting more information about what ever subject it is that they are working on. Questions, questions, and more questions. (Hispanic)

143. An LEP gifted student is almost like a regular gifted student except that he/she is limited English. All gifted students are different some are good in certain areas. My two daughters are gifted; one is great the other fails in school. To give out a general survey is stupid! (White)

144. I have two students in my class that are very good in all of the areas above. However, many gifted students aren't necessary good in all these areas. It really depends on the individual child. (Black)

145. The depth of understanding goes beyond the superficial. (Black)

146. A gifted student is a child who has a love for learning and takes pride in their work. Some are artistically creative but others are not. They like to share their thoughts with others. These children do well in math and are exceptionally good readers. Some gifted students enjoy music and also do well in Physical Ed. (Hispanic)

School Number 4 (cont.)

Responses to Gifted in General Survey

147. Gifted students are usually willing to take risks; try



new things, move to beat of different drum, questions authority, asks why. (Other)

148. A gifted student has the potential to excel in the area he/she is most interested in. Due to multiple intelligences, students who are truly gifted in a certain area may not exhibit their giftedness in the traditional classroom and therefore may not appear unique or different when compared to their peers. If the student is gifted in traditional areas (Language/Math) he/she will be able to quickly master material and find those "off the wall" answer and appears obviously unique. If the student happens to be gifted and an underachiever he/she may appear "normal" or "low" when compared to peers. (Hispanic)

149. The gifted student is capable of more challenging mental activities and capable of working on a single task for longer amounts of time. Not necessarily better at artistic activities/musical, etc., more articulate, verbose, inquisitive, self-assured, ready for a challenge, bored by "average" class work. Many possess an incredible ability to perceive "senses" or become empathetic of others - can relate well to adults. (White)

150. A gifted is unique because he/she is able to experience (explore) and appreciate the abilities he or she has and excels with it. (Black)

151. Gifted students do things that are not normally expected as compared to the majority of the class. But not all students are gifted in the same ways. These students may excel in one area and be very weak in other. (White)
152. Unique as far as has a superior aptitude. How the child relates or uses these skills varies among "gifted." Gifted is based on IQ indicators and achievement indicators. Therefore "unique" is relative to attainment of superior measurement levels - non-gifted are not high on indicators for "gifted". (White)
153. Being able to solve a variety of problems. Being able to handle academic tasks without getting easily frustrated or stressed. (Hispanic)
154. Accepts more responsibilities and can carry out independent projects more effectively. (Hispanic)
155. Usually, the student is not different from the other students. Basically, he/she has higher stanines, work quality is higher and they have well developed critical thinking skill. However, I feel that each child is different. (Hispanic)
156. Gifted children appear to be more inquisitive, unconventional, and creative than non-gifted peers. They seem to extend ideas and concepts. (Hispanic)
157. Interested in learning. Asks questions, and likes to

- solve problems. (Hispanic)
158. Because they are well-rounded students. (Black)
159. A gifted student usually excels in one academic area, beyond his/her peers. Gifted students tend to be creative, imaginative, and may demonstrate leadership qualities. They usually get along with their peers. (White)
160. Gifted students are alert and they have a lot of questions. (Hispanic)
161. Able to apply thinking skills. Comes up with divergent solutions. Is inquisitive. (Hispanic)
162. A gifted student is a curious child - more so than others - is more observant, critical, more easily challenges what is offered to him academically. (White)
163. She/He can think critically. Their minds can go in many directions to find several conclusions or explanations to problems. They have had good/excellent home environment, encouragement from their parents. (Hispanic)
164. Their ability to question and examine things. Their creativeness. Their interest. (Black)
165. He/She is talented or exceptional (better than most others) at some one or more than one part of school or sport. (White)
166. The manner in which a child approaches new information and concepts, and then expands, investigates and analyzes

them. (Hispanic)

167. Open minded positive attitude. (Hispanic)

168. He seems to be more curious and more willing to go out of his way to learn and find solutions to various problems.

(White)

169. I have no opinion since each child is different.

(Hispanic)

170. A gifted child may be different in some areas and not in others. All gifted children have different characteristics. (Hispanic)

171. He/She believes so. (Hispanic)

172. (1) Ability to express him/her self. (2) Way child handles daily situations. (3) The schemes he/she brings from home. (Hispanic)

#### School Number 5

#### Responses to Hispanic LEP Gifted Survey

173. There are few truly "gifted" students - we keep lowering the standards so more students will qualify - this defeats the purpose of "gifted". (White)

174. The ability to be creative. (Black)

175. They have parents that would like for them to be called gifted. I think all students are unique. (Other)

176. The teaching strategies used in class are the right strategies for the learning style of the student. If we

teachers teach according to our students' learning styles,  
all our students would be gifted. (Hispanic)

177. The curiosity and high interest in learning (what  
particular area depends on the individual). (Hispanic)

178. Excels in most areas above grade level. P. S. I have  
never had a Hispanic LEP gifted student. (White)

179. The "Gifted student thinks critically he/she analyzes,  
and process material in a different manner. (Black)

180. They have parents who feel it is important for them to  
be classified as "gifted." (Other)

School Number 5 (cont.)

Responses to Gifted in General Survey

181. Gets more out of presentations, discussions, etc. than  
other students. Very motivated, independent, works well  
w/others. (Hispanic)

182. I think a child's ability to excel "beyond" what is  
considered normal for his/her age could be considered in  
comparing to his/her peers. (Black)

183. Verbal, creative, and imaginative. (White)

184. A gifted student is a student that is above his/her  
mental level; not necessarily in any of the above mentioned  
level. This survey is too general. Every child is  
different and should be looked at differently. (Hispanic)

185. They have parents who want them to be gifted program.  
(Black)
186. Inquisitive nature, curiosity. (Hispanic)
187. A gifted student tend to be more inquisitive in nature. They do well at challenging tasks. (Hispanic)
188. A gifted student may excel in only one or two areas and actually be very weak in others. He/She will usually work at one or two grade levels (in one or two areas) above the one in school. (Hispanic)
189. His or her creativity and his/her enthusiasm and curiosity at trying new things. (Hispanic)
190. A gifted student possesses unique qualities that do not compare to other students. Suggestions - You need to include "Sometimes" in your scale. (Hispanic)
191. All students are gifted in one way or another. Each child is unique for different reasons. Children who have been "labeled" gifted does not necessarily perform on a high level (level of achievement) as would be expected. (Other)

School Number 6

Responses to Hispanic LEP Gifted Survey

192. Looks for creative responses to problem solving.  
Talkative. Sensitive. (White)
193. A child's ethnic group does not determine his or her talent or skills. (Black)

194. A gifted student shows a unique quality in his personality that differs from the normal range of academic responsibility that is unique to that person. (White)

195. A gifted student is usually more alert, curious, and can work independently. He/She usually sees a different view than the other students. (Hispanic)

196. Some of them have more interest in learning than others. (Hispanic)

197. A gifted student has interest that a "normal" child wouldn't have. (Hispanic)

School Number 6 (cont.)

Responses to Gifted in General Survey

198. A gifted student is unique as a result of a special talent. The special talent can be in the area of music, sports, math, language arts, or any other subject.  
(Hispanic)

199. A gifted student is unique in such a way that they possess academic qualities that are of a higher level than others. They can possess a variety of enhanced skills in many areas: arts, music, dance, athletics, abstract thinking, etc. (White)

200. A higher developed innate intelligence usually characterized by advance reasoning ability and problem-solving skills. (White)

201. Gifted students are not necessarily unique. They are just like the other students but happen to do well on testing. (White)

202. A gifted student put maximum effort in what he or she does. Spend plenty of time studying. (Black)

203. A tremendous capacity to learn. (Black)

204. Curiosity mostly and ability to see beyond the obvious, is easier to adapt to strategies in learning critical thinking and creative thinking. Usually has a longer attention span and is strongly interested in one or more areas and will spend hours studying this interest. (White)

205. Never taught one. But I'd imagine this student to be self-motivated when challenged properly and also possess shining ability. (Black)

206. Usually he or she likes to do things on their own. Doesn't have to wait for directions. Is not afraid of new ideas. (Hispanic)

207. A gifted student is able to see one step beyond the problem presented to him/her. They are also a lot more curious than other students and are constantly asking questions. They are also highly motivated. (White)

208. A gifted student always is looking for new things to experiment and get more knowledge. They get bored very



easily so you have to challenge their intelligence in order for them to respond and do good in all his/her classes.

(Hispanic)

School Number 7

Responses to Hispanic LEP Gifted Survey

209. I am not clear and do not really teach this type of student. I am also not clear with the gifted title of a L. E. P. student. (White)

210. The gifted student has an intellectual capacity that is greater than the non-gifted student. He/She is able to find several ways of finding the same answer to a problem instead of just one. (Black)

211. Because they can pick things up better (learn quick) they are more motivated to learn and develop good study habits and achieve in school. (Hispanic)

212. A gifted student is one who compared to his/her peers is a higher intelligence score on a specific test. Most probably will also possess certain qualities such as curiosity or ability to solve problems creatively.

(Hispanic)

213. Their quick ability to grasp concepts and create.

(Hispanic)

214. Longer attention spans, inquisitive. (White)

215. A gifted student is curious and can work well in

groups and alone. A gifted student tries to find answers and researches information. (Hispanic)

216. A student is considered gifted if they can relate to situations on a higher level of thinking, organizing, and solving problems. They are able to be more in depth in their thinking and can solve a problem more than one way. (Black)

217. In general the gifted student seems to be more confident than his/her peers, that is not necessarily a good thing because a lot of these children ridicule and feel superior towards other non-gifted students. (Hispanic)

218. The 130.00 IQ, self motivation, power of abstract thinking skills, analytical thinking skills, kind of questions they ask. (Hispanic)

219. Analytical thinking. Creativity. Curiosity. (Hispanic)

220. Your question stated Hispanic gifted and I don't feel being Hispanic should be distinguished from gifted. If a student is gifted that should not be based or qualified by nationality. I feel that environment and exposure to many things helps students develop many talents. Most gifted students will exhibit their talents and be recognized. Some gifted students do not perform well in a structural environment and so are not "successful or good" in school.

For me, each students gifted ability needs to be evaluated individually. (White)

School Number 7 (cont.)

Responses to Gifted in General Survey

221. A gifted student is unique because they are extremely talented in any one area. They are also creative and curious students. (Hispanic)

222. His achievements in whatever character strong points he/she may possess. (White)

223. His or her ability to grasp knowledge so easily. (Hispanic)

224. He or she can serve as peer tutors to others. (Black)

225. Excels in many areas. Usually shows talent in a specific area. Able to explain the unusual or complicated scenarios. (Other)

226. There is no difference. (Hispanic)

227. The gifted student may have had a teacher, parent, and/or mentor find his talent area or "intelligence" area; this student may have had intense fostering of this "giftedness" early on (pre-school) years, other students may have not had the same opportunities as the gifted students. (Hispanic)

228. Having the ability to excel in any area of studies. (Black)

229. They use higher order thinking. (Hispanic)
230. A gifted student wants to absorb as much information about his/her's special interests or areas of study. They tend to spend extra time on them. (White)
231. The student is essentially one who scores above the average on a standardized test and is excels above average academically or in a special talent. (Black)
232. They have been recognized as having excelled in a certain area. (White)

School Number 8

Responses to Hispanic LEP Gifted Survey

233. The light behind their eyes. (White)
234. They have excellent abstract thinking and have a large storage of content area and they are very independent. They take initiative in cooperative groups and are risk-takers. They are above grade level in all areas and they readily absorb new data like a sponge. (White)
235. I feel that giftedness is displayed when a student excels or shines in any particular area of education regardless of language proficiency or school performance in what we generally consider as a "good student." (Hispanic)
236. Each student needs to be assessed as an individual according to personality, not on intellectual qualities that

may or may not encompass any or all of the above attributes.  
(White)

237. He uses more creativity and critical thinking skills to solve problems; expands his thinking to arrive at solutions. (White)

238. The gifted student possesses an advantage as far as the cognitive aspect of learning is concerned. (Hispanic)

239. Each student gifted or not is unique in his or her own way. Not all gifted students are artistic. For example, it is impossible to make such grand generalizations! Many of the creative and artistic qualities above are seen in many gifted children but certainly not all. (White)

240. Curiosity; see things in a different light, experimental with language, music, science, art, etc.  
(White)

241. I have never had a gifted LEP student. I believe we cannot generalize amongst individuals. (Hispanic)

242. Higher IQ as measured by a standardized test. (White)

243. Curious, independent, interested, motivated. (White)

244. An unusual quality that is apparent and obvious.  
(White)

245. Curiosity. Strong thinking skills. (White)

246. This survey is not specifically for LEP but applies to all students who excel above the rest. (White)

247. Can be or do any or all of the above or none. (White)

School Number 8 (cont.)

Responses to Gifted in General Survey

248. Natural abilities. (Other)

249. N/A. (Black)

250. A gifted student is willing to listen and try new things. He/She is bright and may or may not be talented at art or music. (Hispanic)

251. The (set of) different qualities listed above that each child possesses makes him or her unique. Gifted students may possess some or all of the qualities above. But not every kid is the same. (White)

252. One or many traits. Could have any, none, or combination of attributes mentioned. Could have high IQ and little motivation. Could have one area of strength. Could be creative and/or research oriented. (White)

253. A gifted student is someone who excels more in a certain area than other peer members. (Hispanic)

254. Usually has the ability to achieve more. Usually they can express themselves better. They usually can do work independently. Tend to be more mature. (White)

255. I think IQ. (Hispanic)

256. Gifted students are individuals and their areas of giftedness varies. Gifted students can be more stubborn in

standing up for their beliefs. Most gifted "self-actualize". (White)

257. Is very observant and has a very large vocabulary. (Hispanic)

258. The same thing that makes a non-gifted student unique among his/her gifted peers. This survey is offensive!!! (White)

259. A true gifted student seems intrinsically motivated and curious about learning. Also, someone who is humble and secure in the gift. (Black)

260. He/she is curious and usually likes to read and is a great observant. (Hispanic)

#### School Number 9

#### Responses to Hispanic LEP Gifted Survey

261. Easier to explain things to since he/she has the ability to understand information quicker. (Hispanic)

262. More verbal. More secure. (Black)

263. A large vocabulary, inquisitiveness, ingenuity, and diverse. (White)

264. Their behavior is better in class (bumpy table.) They have a longer attention span. (White)

265. A gifted person may or may not be any of the above according to the unique characteristics that the child exhibits. Being LEP gifted is no different than any other

gifted child. (White)

266. The child stands out from the rest of the children.

(Hispanic)

267. As mentioned above a gifted student tends to be more observant and a more divergent thinker. (Hispanic)

268. First the IQ via testing scores, I doubt that he is a natural IQ gifted individual, secondly is curious about being creative rather than following mainstreaming everyday rules and work. He or she believes that he is on a pedestal above peers and teachers too! Much reinforcement from the educational environment. Could possibly share some good unique qualities. (Hispanic)

269. A gifted student listens to what the teacher has to say/teach. A gifted student strives to do their best at all times. (White)

270. What makes a gifted student unique is his or her capability of making sense of probabilities that others have difficulty in doing. In other words, they view things at a much easier level than those of normal IQ's. (Hispanic)

School Number 9 (cont.)

Responses to Gifted in General Survey

271. Excels in class. (White)

272. Curious, problem solver, self disciplined. (White)

273. He is always wanting to learn about anything.



(Hispanic)

274. A gifted student is one who is self motivated when it comes to learning. He is curious about his surroundings and the things he is involved in. He takes learning a step beyond the non-gifted student. (White)

275. His answers to questions or solving may be more complex than other students. (Other)

276. Excels in the classroom concerning to the basics.  
(Hispanic)

277. Curiosity. (White)

278. I believe his interest and motivation. Also his ability to express himself orally. Gifted students are curious. (Hispanic)

279. He has the ability to grasp concepts more so than non-gifted learners. (White)

280. Self motivation. (White)

281. He is more analytical than his peers. (White)

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