Attributes of Hispanic Gifted Bilingual Students as Perceived by Bilingual Educators in Texas

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The purpose of this study was to report the perceptions of observable characteristics that bilingual classroom teachers have regarding bilingual Hispanic students who are either currently identified as gifted or whom they perceive as potentially gifted but who did not meet district identification criteria. The research questions, exploratory in nature, were: (1) Given a group of certified bilingual educators, to what extent would they perceive various Hispanic sociological or linguistic characteristics or attributes as well as diverse gifted characteristics, as being exhibited among identified or potentially gifted, bilingual, Hispanic students? and (2) How would the same group of bilingually certified educators perceive similarities among the characteristics that they determined as observable among identified or potentially gifted, bilingual, Hispanic students? A sample of 61 elementary (K-4) bilingual teachers in Texas volunteered to complete a ninety-item questionnaire designed by the researchers and based on an extensive review of the literature. A descriptive analysis of those items was conducted through the computation of each item mean and standard deviation, and a cluster analysis was employed that grouped the data into eleven clusters.

Introduction

Hispanic children are the fastest growing ethnic group in the nation's public schools (U.S. Department of Education, 1995). In fact, by the year 2000 there will be a 35 % increase of the Hispanic population in schools (Oxford-Carpenter, Pol, López, Stupp, Gendell & Peng, 1984). Texas statistics are no exception to these national trends. According to the Center for Demographic and Socioeconomic

Research and Education in the Department of Rural Sociology at Texas A&M University (1996), Texas population is changing rapidly and substantially — with projections pointing to continued growth, diversity, and social concerns. By 2030, the state population will be 33.8 million, an increase of 99% over 1990. Of this increase, 72% is projected to be due to immigrants from other states and from other nations.

By 2030 in Texas, Anglos are expected to increase by 20.4%; African-Americans by 62%, Hispanics by 257.6%, and all other ethnicities by 648.4%. Of the total population in Texas by the year 2030, Anglos will represent 36.7% and Hispanics will represent the largest ethnic group at 45.9%. By 2030, of the total net change of the State population, 87.5% is projected to be due to minority population growth (Center for Demographic and Socioeconomic Research and Education, 1996). As these demographic changes occur, educators are faced with the challenge of meeting the needs of a more diverse group of students. This article focuses on concerns regarding the identification of one of the diverse groups — the bilingual, Hispanic, gifted students. It will share the results of an empirical study regarding the investigation of Hispanic, bilingual, gifted or potentially gifted students' attributes as perceived by a group of bilingual educators in Texas.

Identification Concerns Regarding Bilingual, Hispanic, Gifted Students

During the 1970's, the public's concern led Congress to pass laws that mandated free, appropriate public education for handicapped children. Accordingly, Public Law 95-561 gave special provisions to children who are gifted and talented, while Public Law 100-297 also aided significantly in supporting the gifted and talented. Even with these special provisions, the one exceptional group that remains without benefit of federally mandated or monitored programs is the gifted.

Minority students, and particularly those from low socio-economic status (SES) backgrounds and/or from other cultures out

of the mainstream middle-class Anglo-American culture or from limited English proficient (LEP) ranks, are not fairly represented in programs for the gifted and talented (LaFontaine, 1987). Ortíz and González (1989) testified in a report from the U.S. Department of Education Office of Civil Rights that "minority groups such as Hispanic, Blacks, and Native Americans are underrepresented as much as 70% in gifted programs" (p.152). Additionally, those who are bilingual with limited English proficiency lag farther behind in gifted service provisions (Cohen, 1990). In a six-state study Bermúdez and Rakow (1993) determined that among the respondents from highly Hispanic populated school districts, very few were identifying and/or serving gifted, LEP students, and of those districts that have developed identification procedures for this group of students, only 33% experienced success with the developed measures.

Among the first researchers to recognize the bilingual, Hispanic, gifted exclusionary factor in gifted programs was Bernal (1974; 1981) who attributed this phenomenon to traditional identification techniques which would not allow culturally or linguistically diverse students to move beyond the beginning screening process. The exclusion of this group of underidentified and underserved children in programs for the gifted has three main implications. First, it sends a negative message to the underrepresented populations who are not included in district gifted programs. It implies that they are somehow less able than those in other populations. Opinions such as "there are just no gifted minorities" or "minority children are in need of academic remediation, particularly those who are LEP" are common even among the teachers (Davis & Rimm, 1989). When and if these students are identified, it is only after they have mastered English and can receive English in an all-English classroom — in fact, it almost admittedly appears linguistically biased in the thought that to be intelligent, one must be fluent in English (Barken & Bernal, 1991). Even being fluent in English does not mean that the child has the same educational and cultural experiences as the mainstream child; thus, identifying an LEP child as gifted based on standardized test scores may not be accurate (González, Bauerle & Félix-Holt, 1994).

Second, the very act of exclusion is contradictory to the American

principles of egalitarianism (Gintis, 1988). The task of providing equitable services for the gifted is made more difficult by the lack of uniformity in objective identification procedures and in appropriate needs-based curriculum services. Uniformity does not preclude the use of a multi-dimensional approach to the identification of giftedness. When reviewing evaluations of programs for the gifted, it has been determined that in many cases there is little or no match between the programmatic services being provided and the district plan of identification (Irby, Henderson, & Berry, 1992).

Third, practitioners must learn how to change the programmatic services and/or their identification plans so that these merge to respond to their particular population within the community. Service subsequent to identification is an issue with which educators must contend once students are identified — service and curriculum cannot be discussed or developed without considering the definition of giftedness and identifying a particular ethnic group. Therefore, not only do proper definition and identification become important in initially finding the gifted in diverse groups, but they are also important in delivering appropriate programmatic curriculum and instructional services to the students.

Typically, school district personnel base definitions on the mainstream, Anglo middle class gifted student, without taking into consideration cultural or linguistic diversity (Cohen, 1988, Bermúdez & Rakow, 1990). With increasing reliance on nominations from teachers who are guided by a checklist of behaviors commonly attributed to exceptional children (Strom, Johnson, Strom, & Strom, 1992), it becomes all the more important for teachers to have accurate defining characteristics upon which to screen diverse populations.

Cohen (1990) acknowledged that various cultural and linguistic aspects, standardized testing bias, identification using checklists deduced from general characteristics of gifted persons, and lack of consideration that language minority students are gifted, impact the identification and services to minority language students. Giftedness is observable and exists regardless of a child's cultural or linguistic background; therefore, identification procedures should also reflect this diversity (Fraiser, 1987).

The Study

Purpose and Research Questions

Only two studies found in the literature attempted to address the characteristics of Hispanic gifted learners; those studies were conducted by Márquez, Bermúdez, and Rakow (1992) who determined the characteristics the Hispanic community perceived as important in identifying gifted Hispanic LEP students and by Bernal (1974) who investigated the community perceptions among Mexican-Americans regarding the characteristics of gifted Mexican-American children. The present study extends their research into the school setting.

The purpose of this study was to report the perceptions of observable characteristics that bilingual classroom teachers have regarding bilingual Hispanic students who are either currently identified as gifted or whom they perceive as potentially gifted but did not meet district identification criteria. Our research questions, exploratory in nature, were: (1) Given a group of certified bilingual educators, to what extent would they perceive various Hispanic sociological or linguistic characteristics or attributes as well as diverse gifted characteristics, as being exhibited among identified or potentially gifted, bilingual, Hispanic students? and (2) How would the same group of bilingually certified educators perceive similarities among the characteristics that they determined as observable among identified or potentially gifted, bilingual, Hispanic students?

Methodology

Setting and Subjects. A sample of 61 elementary bilingual teachers attending an annual state bilingual conference in Texas volunteered to complete a ninety-item questionnaire. The criteria for participants to complete the questionnaire were: (1) to be a teacher in a Texas public school elementary (K-4) bilingual, Spanish/English program and (2) to be certified in bilingual education by the Texas Education Agency. No other criteria were required to complete the

questionnaire. Participants in this study were 25% Kindergarten, 18% First Grade, 30% Second Grade, 11% Third Grade, and 16% Fourth Grade bilingual teachers. Forty-eight percent reported having had training in gifted education issues with 23% of those having had between 16 and 45 hours of training. None indicated more than 45 hours of training in gifted education.

We did not require that the teachers in this study be certified in gifted education, because in Texas the certification for gifted education is not mandatory. Additionally, those teachers who are certified in gifted education in Texas are majority English speaking and do not work directly with the Spanish speaking elementary students. Neither regular classroom teachers nor the majority of the gifted education personnel would have knowledge of the attributes of the children served in bilingual education programs, particularly at the primary grade levels. However, 48% of the teachers in this study had from one to 45 hours of training in gifted education.

Instrumentation. The ninety-item gifted identification screening questionnaire designed by the researchers is the product of an extensive review of the literature on gifted Hispanics, Hispanic familial/sociological characteristics, Hispanic elementary children, and diverse gifted populations, including minority, rural, and urban. Over four hundred characteristics were found in the literature that related to one or more of the above listed classifications. As the four hundred characteristics were qualitatively coded and categorized, they were reduced to 90 characteristics determined to be usable for the questionnaire. All items were constructed as positive characteristics, even though several of the characteristics found in the literature were negative ones. Thus, the 90 item questionnaire was constructed in a five-point Likert scale, with 5 being “always exhibits behavior/characteristic”, 4 as “often exhibits behavior/characteristics”, 3 as “sometimes exhibits behavior/characteristics”, 2 as “seldom exhibits behavior/characteristics”, and 1 as “never exhibits behavior/characteristics”.

Procedures and Analyses. Data were collected at a Fall

1995, annual, state bilingual education conference. Teachers were asked at random to volunteer to complete one questionnaire. Sixty-one elementary bilingual teachers volunteered to participate in this study. The directions were provided, orally and in writing, to each volunteer teacher, and it took an average of twenty five minutes to respond to the questionnaire. Each teacher was asked to complete the questionnaire as he/she considered already identified or those who had potential to be identified as Hispanic, bilingual, gifted children with whom they had worked.

Recognizing that this study was exploratory in nature, we wished to first examine the perceptions that bilingual teachers hold about gifted or potentially gifted bilingual Hispanic students related to each of the ninety items included on the questionnaire. A descriptive analysis of those items was conducted through the computation of each item mean and standard deviation. All data in this study were analyzed using SPSS-X for Windows.

Furthermore, because we wanted to explore similarities among the ninety variables as perceived by the participants, a cluster analysis, nonparametric technique, was employed. We chose hierarchical cluster analysis for its simplicity and because it offers control over the clustering process. The researchers followed the required steps for agglomerative hierarchical cluster analysis in order to explore perceived similarities among the ninety variables. An agglomeration schedule was used to combine variables and establish their distance coefficients. In subsequent steps, item clusters were merged according to various strategies, based on the distance matrix between the elements of the set; a median linkage was specified for the clustering method. New aggregate clusters were then formed. The similarities and dissimilarities matrix was established through Pearson correlation. A dendrogram, or tree graph, was produced to better depict clusters and relationships among variables. The goal was to find natural groups and to determine underlying structure. Following the hierarchical cluster analysis, each identified cluster was analyzed using the Cronbach's Alpha, *a*, to establish estimates of internal consistency. From this initial study, we hoped to establish a framework for a reliable, valid, and practical screening instrument for bilingual,

Hispanic gifted students which could be applied in a more comprehensive study with more bilingual elementary teachers, not only in Texas, but in other states with high concentrations of Hispanic LEP students.

Findings

Descriptive Analysis

Means and standard deviations for sixty-five selected characteristics as perceived by the 61 participants in this study are depicted in Table 1 along with their respective clusters. From the ninety attributes or characteristics listed on the questionnaire, 44 items (49%) have means of 4.0 or higher indicating the characteristics are often exhibited in the students, while 46 items (51%) have means of 3.00 to 3.98 indicating the characteristics are sometimes exhibited. No items are rated as "5," always exhibited, nor are items rated as "1" or "2," seldom or never exhibited. The items teachers rate "4," often exhibited, can be strongly considered in the development of a profile of defining characteristics of Hispanic, bilingual, gifted students. Of considerable merit are thirty-six of the ninety items which have actual means between 3.52 and 3.97, giving those items rounded means of 4.00. Eight items rated from 3.00 to 3.40, remain as weaker identifiable gifted Hispanic bilingual characteristics perceived by the teachers in this study. However, since all characteristics were perceived to be at least somewhat exhibited among the students, further exploratory analysis was conducted to determine which of these items might cluster together to form a structure for better interpretation of characteristics and use in identifying bilingual, Hispanic children for gifted programs.

Cluster Analysis

Agglomerative hierarchical cluster analysis results suggest that the data be grouped into eleven clusters (see Table 1). The cluster analysis yielded eleven clusters with coefficients ranging between

Cluster Name	Alpha	Behavior/Characteristic	M	SD
1. Motivation for Learning	.90	Values Education	4.23	.90
		Likes to attend school	4.41	.94
		Is persistent	4.33	.85
		Is motivated to learn	4.34	.95
2. Social and Academic Languages	.91	High achiever in reading	4.30	.88
		High achiever in writing	4.22	.97
		High achiever in speaking	4.37	.86
		High achiever in listening	4.31	.92
3. Cultural Sensitivity	.91	Aware of own language/culture	4.07	.91
		Values oral tradition	4.00	.95
		Openness toward those who embrace the culture	3.92	.90
4. Familial	.91	Has small family unit	3.56	1.04
		Has strong interpersonal family relationships	4.03	.97
		Maintains meaningfull transactions with adults	4.23	.82
		Has strong maternal role models	4.00	1.06
		Has strong paternal role models	3.77	1.11
		Respects authority	4.05	1.02
		Parents participate in school	3.68	1.07
5. Collaboration	.90	Responds favorably to reward	3.88	1.03
		Interacts with peers from other ethnic groups	4.20	.82
		Avoids conflicts	3.62	1.01
		Works well with others	4.28	.82
		Well accepted by peers	4.13	.88
		Good at giving advice	3.93	.88
		Good at setting goals	4.05	.89
		Has a keen sense of justice	4.10	.85
		Is able to judge people and events	4.15	.83
		Uses intuition	4.02	.91
		Is patient	3.92	1.00
		Likes to please	3.83	1.13
		Has special sensitivity to societal needs	3.87	.91
6. Imagery	.88	Exhibits language rich in imagery (speaking)	4.43	.72
		Imaginative in storytelling	4.47	.68
		Exhibits language rich in imagery (writing)	4.37	.86
7. Achievement	.86	Generalizes learning to other areas	4.46	.67
		Uses stored knowledge to solve problems	4.57	.64
		Reasons by analogy or contrast	3.83	.80
		Talents demonstrated at home or in community	4.26	.83
		Performs at or above grade level in math	4.33	.77
		Perceives cause and effect relationships	4.15	.77
		Is self-directed and methodological	4.15	.95
		Has entrepreneurial ability	4.05	.91
		Is always asking questions, is curious	4.13	.91
8. Creative Performance	.78	Exhibits creativity in physical activities, dance	3.83	.87
		Performance in native culture is unique	3.85	.93
		Adept in visual and performing arts	3.75	.89
		Creative in lyric production	3.75	.96
		Higher creativity in groups	3.54	1.09
9. Support	.78	Performs best when teacher expresses confidence in ability	3.73	1.13
		Prefers alternative assessment	3.90	.95
		Shows interest in one academic area	3.67	1.06
		Needs continued support in second language acquisition	3.52	1.35
		Vocabulary is better developed in native language	4.12	.96
10. Problem-Solving	.71	Global thinker	3.92	.94
		Performs well in science	4.25	.86
		Has more patience in dealing with tasks not easily resolved	3.93	.91
		Time is not of essence in project completion	3.97	.97
		Exhibits high nonverbal fluency	3.70	.93
11. Locus of Control	.62	Exhibits self-confidence	4.23	.87
		Has responsible social behavior	4.20	.95
		Reasons in step by step procedure	3.66	.93
		Has good teaching skills	4.07	.98
		Is more cooperative than competitive	3.61	1.16
		Completes homework	4.18	1.00
		Does not imitate others	4.20	.83

Table 1. Identified Clusters Based on the Agglomerative Cluster Analysis.

.62 to .91 using Cronbach's Alpha Coefficient formula. Table 1 depicts the identified clusters based on the agglomerative hierarchical cluster analysis with the variables or attributes and the *a* (Alpha Coefficient) for a sample of sixty-one respondents. Those clusters are as follows: Cluster 1 - Motivation for Learning, Cluster 2 - Social and Academic Language, Cluster 3 - Cultural Sensitivity, Cluster 4 - Familial, Cluster 5 - Collaboration, Cluster 6 - Imagery, Cluster 7 - Achievement, Cluster 8 - Creative Performance, Cluster 9 - Support, Cluster 10 - Problem-Solving, and Cluster 11 - Locus of Control.

There are several tight clusters, namely: Cluster 1 - Motivation for Learning, Cluster 2 - Social and Academic Language,Cluster 3 - Cultural Sensitivity, and Cluster 6 - Imagery. Moderately aligned clusters are: Cluster 4 - Familial and Cluster 5 - Collaboration. The remaining clusters are combined loosely. Ten of the eleven clusters result in high Alpha Coefficients, ranging from .71 to .91, while one cluster remains with an Alpha of .62. The tightly or moderately aligned clusters have the highest Alpha Coefficients between .88 to .91.

Cluster 1: Motivation for Learning. Cluster 1, Motivation for Learning, includes four items, all of which were perceived by teachers as often exhibited among the identified or potentially gifted, bilingual, Hispanic elementary students. For example, the children demonstrate that they value education through good school attendance. Additionally, they exhibit a desire for learning, are persistent, and have a sustained motivation to succeed in school. Motivation to learn was also found among characteristics of Hispanic gifted students as determined by community perceptions (Márquez, Bermúdez, and Rakow, 1992).

Cluster 2: Social and Academic Language. Cluster 2, Social and Academic Language, addresses four items rated as often exhibited characteristics among the students. This cluster assays verbal precocity among bilingual Hispanic students considered in this study and indicates that they not only like to read, speak, listen, and write in their native language, but they also achieve well in those areas.

This is in compliance with early studies (Hollingsworth, 1926; Stedman, 1924; Strang, 1963; Terman, 1925; Terman & Oden, 1947) on English speaking gifted students where it was determined that these students were not only good readers, but that they also displayed a keen interest in reading. A more recent study by Márquez, Bermúdez, and Rakow (1992), found that the Hispanic community also perceive the gifted children within that community as having interest in reading. Although there is a paucity of research on the differences in expressive language performance of gifted children (Bruch, 1975), there is general consensus through observational data that gifted children have a propensity toward superior verbal behaviors that are expressive, elaborate, and fluent (Renzulli & Hartman, 1971). The results of our study support similar observations among Hispanic students in their exceptional abilities to verbally express themselves in their native language. Additionally, our study reports new findings in which gifted or potentially gifted, bilingual, Hispanic students are rated by their teachers as being good listeners and good writers in their native language.

Cluster 3: Cultural Sensitivity. Cluster 3 suggests an expressed and observable appreciation for the Hispanic culture among the Hispanic, LEP, gifted and potentially gifted students. The three items in this cluster have an actual or rounded mean of 4.00 which translates to characteristics that are often observed by teachers in their bilingual Hispanic students. Characteristics observed and included under Cultural Sensitivity are (a) pride in their language and/or culture and respect for traditional cultural and linguistic patterns, and (b) a value for oral tradition and history of the native culture (also is reflected in the fact that Cluster 2 included characteristics that indicated the students enjoyed listening and had good listening habits). Additionally, this Cluster reveals an item which indicates the students have an openness toward those who embrace their culture and the language no matter what nationality. This Cluster represents an important finding because it addresses the critical aspect of culture, which is often lacking among other traditional screening instruments as pointed out by Cohen (1988) and Bermúdez and Rakow (1990).

Cluster 4: Familial. Cluster 4, Familial, identifies eight attributes associated with gifted or potentially gifted, Hispanic, LEP students. Fifty percent of those attributes have an actual mean of 4.00 or characteristics often exhibited, while the other items are observed as sometimes being exhibited. Strong maternal and paternal role models are observed among these students, as well as strongly observed interpersonal relations among family members. Additionally, the students exhibit a "caretaker" personality within the family which is supported by a study conducted by Ebener (1995) in which he found that high achieving Hispanic students often take over interpretative caretaker roles between the home and school or community.

Parents are perceived to demonstrate strong emotional support for these children and to participate in school functions. The parents of the students considered in our study are possibly afforded more opportunities to be participative in school functions due to the teachers' observations that these students have smaller family units (usually less than three children).

The teachers perceive their students as having respect for authority figures and as having meaningful transactions with adults. According to Perrone and Aleman (1983) and Cohen (1988), the strong family relationships and respect for authority figures that are exhibited among the general Hispanic population and, based on this study, among the gifted, LEP, Hispanic children may be perceived as a non-gifted trait, since gifted identification scales tend to equate non-conformity toward authority and independent thought with superior abilities (Renzulli, Hartman, and Callahan, 1971). The Familial Cluster represents critical findings that consider the relevancy of family structures within the Hispanic culture and among these gifted and potentially gifted Hispanic, LEP children.

Cluster 5: Collaboration. Cluster 5, Collaboration, focuses on thirteen items that deal with the students' abilities to lead and work with others in a cooperative nature. The first seven items listed have actual means of 4.00 or often exhibited behaviors. The students: (a) are good at setting goals; (b) have a keen sense of justice and quickly

perceive injustice; (c) are able to categorize or judge events and people; (d) have good social adjustment - are well accepted by peers and are sensitive to personal relationships; (e) possess leadership qualities in relation to working in the peer group - work well with others; (f) participate in school activities and class discussions, and (g) interact with peers from other ethnic groups. The ability to judge events and people is also found among the mainstream gifted children (Renzulli, Hartman, and Callahan, 1971). Good social adjustment and sensitivity to personal relationships are two traits that are supportive of earlier findings among Mexican-Americans (Bernal, 1974).

The remaining six characteristics, aligned with the Collaboration Cluster, have rounded means of 4.00 and are as follows: (a) is indirect at giving criticism — avoids conflict — likes to please and is sensitive to the opinions of others (the avoidance of conflict possibly emanates from the conforming behavior discussed under Cluster 4, while sensitivity toward others' opinions is a trait that is supportive of Bernal's (1974) findings); (b) has a special sensitivity to the needs of society (like many mainstream gifted children, the findings or our study indicate that the Hispanic gifted child is also sensitive to world needs and is good at giving advice (Renzulli, Hartman, and Callahan, 1971); (c) responds favorably to typical classroom motivators and rewards or awards; (d) is patient; and (e) is good at giving advice and judgments in disputes and in planning strategies.

Cluster 6: Imagery. Cluster 6, Imagery, includes three characteristics that all have actual means of 4.00. This cluster, like the Social and Academic Language Cluster, is aligned with the verbal precocity of Hispanic, LEP, gifted or potentially gifted children. They tend to exhibit language (spoken and written) rich in imagery and appear to be imaginative in storytelling. This is supportive of Márquez, Bermúdez, and Rakow's (1992) findings on Hispanic LEP students from the community perspective. These researchers found that these students tended to be creative and have abilities in written and oral expression, as well as in storytelling. Being able to image or aptly describe an event or story in the native language and to make

it vivid and alive are characteristics that the bilingual teachers in our study perceived to be traits in their gifted and potentially gifted students.

Cluster 7: Achievement. Cluster 7, Achievement, yields fifteen items that are loosely clustered with an Alpha Coefficient of .86. This cluster reveals that the academic giftedness perceived by the teachers is multifaceted in nature. Not only are academic virtues reported as often exhibited, but they also branch into more intrapersonal cognitive domains. Thirteen of the attributes are rated with an actual mean of 4.00. They are as follows: (a) has the ability to use stored knowledge to solve problems; (b) has the ability to generalize learning to other areas and to show relationships among apparently unrelated ideas; (c) performs at or above grade level in math — likes to do math problems; (d) talents are demonstrated through various projects and interests at home or in the community; (e) is self-directed in activities; (f) perceives cause and effect relationships; (g) is curious — always investigating or asking questions and likes to take risks; (h) tends to prefer novelty, personal freedom, and distinctiveness; (i) the level of competency between learning and language is consistent; (j) has a working command of Spanish as well as English; (k) has an entrepreneurial ability; (l) has a rich sense of humor; and (m) uses intuition. Many of these characteristics are also observed among mainstream gifted students (Renzulli, Hartman, and Callahan, 1971; Parke, 1989), with the exception of the working command of Spanish and English.

Two additional items have rounded means of 4.00. One characteristic observed, reasons by analogy or contrast, may be loosely linked to DeLeon's research (1983) which indicated that when Hispanic children are asked to reason, they tend to give answers in relation to their social context, thus making analogies through the personal cultural perspective. The other characteristic that teachers perceived was that the students may not complete one task before going to another and tend to complete tasks in their own time; this trait should not to be confused with a lack of organization or interest.

Cluster 8: Creative Performance. Cluster 8, Creative Performance, has an Alpha Coefficient of .78 and is concerned with attributes that deal with the students' creative productivity in the arts. All items in this cluster have rounded means of 4.00, indicating perceptions that these attributes are often exhibited in the gifted or potentially gifted, Hispanic, bilingual students. These items tend to mirror Torrance's findings (1970) regarding disadvantaged, minority gifted students in that they are adept in visual/performing arts and are talented in music, art, or drama. Additionally, they exhibit creativity in movement, dance and other physical activities. The teachers perceive the students to be creative in lyric production to songs with more creativity exhibited in group settings.

Cluster 9: Support. Cluster 9, Support, addresses five perceived attributes that are loosely clustered with an Alpha Coefficient of .78. Vocabulary is perceived to be better developed in the native language; consequently, the teachers perceive the children as needing continued support in the acquisition of the second language. It is important to note in this respect that simply because teachers and administrators perceive students to be gifted, does not negate the fact that they are in need of support. The more bricks I have the bigger building I can build. This analogy relates that the more vocabulary and understanding the child has in the native, with support he or she can build a bigger vocabulary in the second language structure. Additionally, according to the teachers, the children tend to respond favorably and perform better when the teachers expressed confidence in their abilities. Two final loosely aligned items to support are: (a) the teachers perceive the children to have one academic area of primary interest (indicates a need for teachers to support this area, but enrich the students academic environment), and (b) the teachers also perceive the students to prefer alternative assessments as opposed to standardized assessments (indicates that teachers need to use multiple assessment and evaluation tools with students).

Cluster 10: Problem Solving. Cluster 10, Problem Solving, includes twelve loosely aligned items that deal with actions in solving

problems, as well as cognitive functions of problem solving. Within this cluster, two of the items deal with individualistic versus group problem solving. The students are perceived as being social in groups, particularly the family, and as participating in extracurricular activities. In cognitive functions, the students are identified as global learners who complete tasks in a patient, non-hurried, yet effective and accurate manner. In a previously described cluster, they were observed as moving from one task to another, yet getting all tasks completed in their own timeframe. In conjunction with the students' curiosity and methodological manner for task completion, the students are observed to enjoy and achieve well in science, a subject that is both investigatory and methodological in nature. They are also perceived to perform better on spatial fluency tasks as opposed to verbal fluency tasks and to exhibit high nonverbal fluency and originality (this is also related to the Cluster 8, Creative Performance).

Cluster 11: Locus of Control. Cluster 11, Locus of Control, is the most loosely defined cluster and has the lowest Alpha Coefficient of .62. This may be contributed to the nature and difficulty of the construct of this cluster. Locus of Control is generally defined as controlling factors one attributes to his/her own actions (internal locus of control) or to actions directed toward the individual (external locus of control) (Rotter, 1971). In other words, some individuals believe that whatever happens in their lives is the result of their own doing, while others attribute life events to forces and circumstances outside their control (Lara-Alecio, 1990). According to the results of our study, the Hispanic, bilingual, gifted students generally are perceived to have an internal locus of control. This is an antithetical perception to the generally held belief that Hispanics are fatalistic and tend to view the destiny in life as something beyond their own control (Caplan and Ruble, 1964; Anderson and Johnson, 1968). The items in this study that suggest internal locus of control are: (a) exhibits good self-concept and self-confidence; (b) is trustworthy and has responsible social behavior and well-developed social skills; (c) acts naturally and does not consciously imitate others; (d) completes homework assignments (indicates a desire to reinforce self); (e) has

good test-taking skills (possibly indicates a keen sense of observation of expectations in the mainstream society and a desire to meet those expectations); and (f) has the ability to meaningfully manipulate symbolism in his/her own culture (possesses abilities to personally manipulate symbolism — does not necessarily allow symbols of the culture to externally manipulate him/her). For example, there is a common expression among Hispanics that, "Todos tenemos un destino que no podemos modificar; tratar de hacerlo es ir en contra de la voluntad de Dios", which translated, means that we have a destiny that cannot be modified, and if one tries to do so, he/she will go against the will of God. This symbolic language expresses the idea that destiny is something in life which cannot be altered; however, the children considered in this study are perceived to be able to manipulate cultural symbolism and understand it in context. Other items included in this cluster with a rounded mean of 4.00, but not specifically tied to locus of control are: (a) learns better through social interaction than through isolation and is more cooperative than competitive, and (b) reasons in a step-by-step process rather than spontaneous. Items that were rated as 3.00, i.e., sometimes exhibited, are related to locus of control, with one item indicating external control and the other relating to internal control: (a) is shy, withdrawn and does not assert self (external) and needs extended time for learning, and (b) takes longer to answer questions (internal). Pendarvis, Howley, and Howley (1990) indicated that, in general, high achievers persevere longer at intellectual tasks and take extended time to complete assignments. Furthermore, high achievement is linked to internal locus of control (Norwicki and Duke, 1983).

Additional Items Not Aligned to Clusters. One item, "expresses feelings of concern over financial situations at home", is not tied to any cluster and has a mean of 3.38. There are several other items not included in the analysis of each of the clusters due to their loose affinity to the respective cluster. The teachers sometimes observed an orientation toward traditional social roles and a compliance toward gender stereotypical behaviors (M = 3.40 mean). Additionally, there are items related to learning styles, but which are

neither clustered together nor are they clustered within grouping that would be logical. Those items are: performs better on visual tasks (M = 3.75); performs better on auditory tasks (M = 3.72); performs better on kinesthetic tasks (M = 3.72); and performs equally well in all learning styles (M = 3.75). The teachers did not perceive the students as having one preferred learning style over another. Another item, not directly related to the particular cluster in which it fell, Problem Solving, that was rated as sometimes exhibited, was having vocabulary better developed in second language (M = 3.42). However, the opposite item of having vocabulary better developed in the first language had a higher mean of 4.12.

Three other items of interest appear to have some relation to locus of control, but are not related to the clusters in which they are aligned. They are: (a) focuses on the expected outcomes of a situation and does not look beyond the situation to possibilities of the unexpected; (b) focuses on immediate gratification (M = 3.28) and present time oriented, not future time oriented (M = 3.38), and (c) needs more direct affirmations/praise from teachers regarding performance (M = 3.28).

Conclusion

Traditional evaluation instruments, purporting to measure intelligence and achievement, have been deemed inappropriate for minority or culturally diverse students (DeLeon, 1983; Markheady, Towne, and Algozinne, 1983; Renzulli, 1970). Gifted screening instruments are different and are used only for identifying children who have potential to participate in gifted education programs. The development of effective screening instruments is critical, because if the initial screening instruments of culturally different students are not inclusive of appropriate, operational definitions or characteristics of giftedness, then, as Bernal (1981) determined, students will continue to be denied access to programs due to their inability to move beyond the screening phase.

This study yielded information which is useful in identifying specific characteristics or attributes of the gifted Hispanic bilingual

students in the elementary program. The characteristics which were rated as "often or always exhibits the behavior/characteristics", appear to be the attributes that one would consider strongly in the development of a reliable and valid screening instrument, as well as in the process of developing an effective curriculum and instruction for the Hispanic gifted bilingual students.

These findings represent a step along the continuum toward providing for better identification screening instruments and, ultimately, more equitable services to Hispanic, LEP, gifted students. This exploratory research delineates the perception of teachers about the characteristics of the Hispanic, bilingual gifted students. It provides the specific characteristics which the sample of teachers identified. Further study needs to validate the findings of this exploratory research. Without defining and validating the characteristics/attributes, any instruments for identification, as well as curricular services, fall short.

In the field of gifted education, where there has been a call for making the changes in identification procedures more inclusive (Fraiser, 1991), an empirical validation of the most agreed upon characteristics and the specific clusters is essential. However, it must be noted that by empirical validation, we mean demonstrating that the attributes for inclusion in a screening instrument: (a) possess explanatory and predictive power over time (stability), and across a range of bilingual classrooms (generalizability), (b) are instructionally useful (positively affect Hispanic, bilingual, gifted students' growth when used for curriculum and instruction purposes), (c) are parsimonious (simply integrate a large number of variables), and (d) interrelate with other identification components. Further academic study in this field will lead to a more inclusive system in which more students among the bilingual-Hispanic population are identified and served in gifted education programs.

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