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Hispanic College Students' Perceptions of Characteristics of Effective Elementary School Teachers: A Multi-Stage Mixed Analysis

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In this multi-stage mixed analysis study, the views of 437 Hispanic students enrolled at two Hispanic-Serving Institutions in the Southwest were obtained concerning characteristics of effective elementary school teachers. Through the method of constant comparison (qualitative phase), 20 dominant themes were determined to be present in respondents' characteristics of effective elementary school teachers. A factor rotation revealed the presence of five meta-themes: Student-centered and Transmitter; Responsive; Enthusiastic, Empathetic, and Communicative; Professional and Director; and, Expert and Connector. Then these themes (quantitative phase), quantitized into an inter-respondent matrix that consisted of a series of 1s and 0s, were analyzed to determine whether participants differed in their themes as a function of gender, college status, and first-generation/non-first-generation status. Statistically significant differences were present between undergraduate and graduate students in their emphases on effective elementary school teachers, as well as between first-generation and non-first-generation college students. Implications are discussed.

"People in most communities want teachers who are nurturing adults of good character that care deeply about the children they teach as they do their own children" (Pacheco, 2004, p. 135).

Introduction

The No Child Left Behind Act (NCLB) has mandated that in order to receive federal funding, school districts must employ "highly qualified" teachers. Title IX of the Act defines a "highly qualified" teacher as one that "has obtained full State certification as a teacher…or passed the State licensing examination, and holds a license to teach in such State" (The No Child Left Behind Act, 2001, Title IX, 9191 {23} A-C). The law further requires the teacher to possess a bachelor's degree (The No Child Left Behind Act, 2001). It is clear that the government's expectation is for teachers to demonstrate competency based on paper credentials, including a teaching certificate, a passing score on an exam and a degree. "The 'highly qualified' standard turns on education, certification, and demonstrated competence" (Walsh, Kemerer, & Maniotis, 2005, p. 151). Earley (2005) asserted in respect to NCLB "that a candidate's academic background is the primary, if not only, consideration in determining the individual's teaching qualifications" (p. 67). It can be argued that this heavy emphasis on educational background and testing will result in universities graduating "academic technicians rather than professional educators committed to social responsibility and school transformation" (Earley, 2005, p. 67).

Many attributes of effective teachers are present in the literature that cannot be measured by a test or by a person's ability to earn a degree. Good teaching does not necessarily equate to knowledge of a list of techniques, but rather centers on human relationships (Cummins, 1996). Shields (2004) contended that "relations make up the basic fabric of human life and must not be pushed to the periphery of educational considerations" (p. 114). Keiser (2005) noted that "While the staid empiricism of NCLB suggests that highly qualified teachers in all schools who were themselves well prepared will eventually teach all students to meet high standards, the complexity of learning communities is conspicuously absent from the code" (p. 41). Michelli (2005) concluded that the definition of teacher quality under NCLB is limited because it focuses on relatively narrow content knowledge at the expense of determining many other qualities needed for effective teaching. For instance, caring, patience, social and emotional intelligence, and other attributes are not measured under the current system. In view of the enactment of this federal accountability system, which in many ways influences teacher selection at the school district level, it is important to consider the literature on what constitutes effective teaching and to be mindful of the broader spectrum of competencies revealed in this study and in other research studies.

In the mid-1980's, Goodlad (1984) and his colleagues conducted a comprehensive study of schooling in the United States. The findings and recommendations stemming from this research investigation were included in Goodlad's (1984) seminal book entitled, *A Place Called School: Prospects for the Future*. In terms of teacher effectiveness, Goodlad found from the data that the most effective teachers possess both technical skills and nurturing behaviors. Nurturing behavior is evidenced by the "teacher's personal attention" (Goodlad, 1984, p. 125), which is demonstrated by a

humanistic interest in the learners. Technical skills are "pedagogical traits – all those techniques designed to keep the student overtly and covertly engaged in the learning" (Goodlad, 1984, p.125).

Students in colleges of education can provide especially important perspectives of the attributes of effective teachers. In some respects, their views may be reflective of the educational context from which they gain their experiences and knowledge (Yoder, Shaw, Siyakwazi, & Yli-Renko, 1992). These students are also likely to enter the profession embracing preexisting beliefs (Kagan, 1992). This assumption, however, has been challenged by those persons who contend that participation in teacher education programs can influence beliefs (Mills & Satterthwait, 2000).

Yoder et al. (1992) explored "some of the differences in perceptions of education students in four countries about what constitutes 'effective' and 'ineffective' teaching" (p. 4). Students from Botswana, the United States, Finland, and Zimbabwe were surveyed. Yoder et al. found differences in students' perceptions among the participant countries. United States respondents, for example, rated "personal characteristics" above "instructional skill" (p. 16). "Personal characteristics" included questions regarding the personality of the teacher, caring, relating well to students, and helping students feel good about the class (Yoder et al., p. 9). "Instructional skills" involved knowledge of subject matter, planning interesting lessons, and fair grading systems (Yoder et al., p. 9). On the other hand, education students in Botswana placed greater emphasis on "instructional skills." Finnish participants indicated the equal importance of both factors.

The importance of the affective domain certainly emerged from Yoder et al.'s (1992) study of California education students (personal characteristics) and in Goodlad's (1984) comprehensive assessment of schools in the United States (nurturing behavior). Other researchers have supported these findings regarding the importance of the ethic of caring (e.g., Cotton, 2000; Good & Brophy, 2003; Minor, Onwuegbuzie, Witcher, & James, 2002; Noddings, 1992; Peart & Campbell, 1999; Witcher, Onwuegbuzie, & Minor, 2001). For example, Witcher et al. (2001) and Minor et al. (2002), who assessed preservice teachers' perceptions about characteristics of effective teachers in primary and secondary classroom schools, reported endorsement rates of 79.5% and 55.2%, respectively, for the student-centered theme – both of which represented the highest levels of endorsement in their respective studies.

Based on the literature, it is apparent that the competencies required for effective teaching are in many ways situational. "Learning is situated in broad socio-economic and historical contexts and is mediated by local cultural practices and perspectives" (Banks, Gay, Nieto, & Rogoff, 2007, p. 15). Yoder et al. (1992), in their discussion of the views of education students in different countries regarding teaching, offered that "social, cultural and (perhaps especially) educational contexts…lead to different (probably implicit) philosophical assumptions about the role and purposes of education and schooling and, by extension, to notions about the role and function of

teaching" (p. 17). For the purposes of this research, it should be noted that there are obviously cultural differences among groups within the United States. Delgado-Gaitan (2001) addressed many of these differences in her ethnographic study of the Latino community in Carpinteria, California, with particular emphasis on its efforts to find a voice in the school system.

With the importance of social, cultural, and educational contexts in mind and in view of the present federal accountability system and its emphasis on a relatively narrow range of qualifications, these researchers sought to determine the views of undergraduate and graduate education students in two Hispanic-Serving Institutions (HSIs) on or near the U.S.-Mexico border regarding their perceptions of the characteristics of effective teachers. In an extensive search of the research literature, no published studies were located in which the views of Hispanic college students were obtained concerning the characteristics of effective teachers. Given the high drop-out rate among Hispanics (Fry, 2003) and the presence of cultural differences (Delgado-Gaitan, 2001), it may be that Hispanics who are academically successful (i.e., attending college) have unique perspectives on what makes teachers effective. To date, previous studies of the perceived characteristics of effective elementary school teachers have utilized samples that were predominantly White (Minor et al., 2002; Witcher et al., 2001). In these studies, minority persons were typically Black, with Hispanic students representing 1% or less of the total sample. In addition, previous studies have tended to study preservice or inservice teachers (Minor et al.; Witcher et al.) rather than college students who are not enrolled in education programs. Along with these concerns, the Southwest region has been relatively understudied as Minor et al.'s sample was from the Southeastern U.S. and Witcher et al.'s sample was from the Mid-South. Further, in studies such as Minor et al. and Witcher et al., the researchers asked participants to identify what they believed are characteristics of effective K-12 teachers but did not ask them to differentiate effective primary school teachers from effective secondary school teachers. Finally, limited attention has been directed toward Hispanic students attending HSIs.

It is suggested that it is especially important to have teachers with the qualities and attributes necessary for positive social change in demographically challenged areas, such as U.S.–Mexico border communities. These regions of the country are typically populated by higher numbers of minorities and economically disadvantaged individuals (Texas Education Agency, 2006). In view of the issues and problems inherent to border communities, Lopez, Gonzalez, and Fierro (2006) argued that educators along the U.S.–Mexico border must create "caring and/or emancipatory spaces for students…" (p. 67). Ruben and Justice (2005) asserted that teaching should include "critical inquiry − teaching students the skills, knowledge, and habit of mind necessary to examine, understand, and theorize about historical, social, and political issues" (pp. 81-82). This form of critical inquiry "is at the heart of what the social studies have to offer to the more general quest to foster democratic thinking and social

justice in the classroom" (Ruben & Justice, 2005). What teaching skills are necessary to foster this form of critical inquiry? Students in one preservice program reported that teachers who made learning fun and active, who cared and were patient, and who challenged them in creative ways were the most effective in this regard (Ruben & Justice, 2005). In essence, it is indicated that teachers in border communities must possess characteristics and teaching styles that provide students with the tools they need to advocate for positive social changes. With these skills, students would be in a better position to seek an improved quality of life and happiness.

For these reasons, this study expands the existing literature through its investigation of Hispanic college students' views of effective elementary teachers. Specifically, the purpose of this study was to examine the views of Hispanic college students regarding the characteristics of effective elementary school teachers. Moreover, the extent to which demographic characteristics of this sample were related to their views of effective elementary school teachers was investigated.

Research Questions

The following research questions were addressed:

1. What are Hispanic college students' perceived characteristics of effective elementary school teachers?

2. What is the effect of gender on Hispanic college students' perceived characteristics of effective elementary school teachers?

3. What is the effect of college status on Hispanic college students' perceived characteristics of effective elementary school teachers?

4. What is the effect of generation status on Hispanic college students' perceived characteristics of effective elementary school teachers?

Significance of the Study

It was expected that knowledge gained from this study would be helpful in better understanding the views of participants concerning characteristics of effective teachers at the elementary school level. This information then could be used to build a deeper literature on effective teaching, as perceived by persons interested in and/or practicing in the educational arena. In addition, it was expected that these research findings would extend the existing literature by obtaining more detailed information about the perceived characteristics of effective teachers at the elementary school level. Finally, this study utilizes an undersampled ethnic group, Hispanics, from understudied universities, HSIs.

Method

Participants

Participants in this study were 437 Hispanic students enrolled in courses at either University A ($n = 210$) or at University B ($n = 227$). Both universities are Hispanic-Serving Institutions located in the Southwest. Of these 437 students, 289 were undergraduates and 147 were graduate students (1 student did not self-report this information). The majority of participants were female ($n = 349$, 79.9%). The average age of participants was 29.21 years ($SD = 8.61$).

For the undergraduate students in this study, their self-reported average grade point average (GPA) was 3.16 ($SD = 0.41$), with an average of 95.18 completed hours toward their bachelor's degree ($SD = 34.24$). Regarding the graduate students who participated in this study, their self-reported GPA was 3.81 ($SD = 0.31$), with an average of 29.19 ($SD = 22.19$) graduate hours completed. One hundred eighty-nine (43.5%) of the sample members reported that they were the first person in their family to attend college (i.e., first-generation college student).

Procedures

Courses in teacher education were identified through discussions with department chairs. These courses included the initial teacher education courses with students beginning in teacher education, field-based courses with students at the end of their degree plan, and graduate-level courses with students who were practitioners. In addition, courses in educational administration and in counseling and guidance, at the master's level, provided students who were practitioners in the schools. A list of these courses was obtained and each faculty member was contacted to request permission for these researchers to conduct the survey in the faculty member's course. The surveys were then administered in the classrooms of faculty members who agreed to have their students surveyed at a day and time agreed upon by the faculty members.

Instruments

The survey has been used in two previous studies (i.e., Minor et al., 2002; Witcher et al., 2001). To make the survey usable for this study, one open-ended question was added in which participants were asked to list the characteristics they viewed as being indicative of an effective elementary school teacher. Research data then were generated in both qualitative and quantitative form. The quantitative portion of the study gathered data initially on participant demographic variables whereas the qualitative portion gathered data on participants' perceptions on what comprised effective teaching at the elementary school level.

Analysis

Using the framework of Onwuegbuzie, Slate, Leech, and Collins (2007), the mixed analysis technique used represented an equal-status sequential multitype mixed analysis (ES-SMMA). This analysis, which incorporates both inductive and deductive reasoning (Onwuegbuzie & Teddlie, 2003), involves the use of qualitative and quantitative data analytic techniques in a sequential manner. Specifically, in the present study, qualitative analyses were followed by quantitative analyses that built upon the qualitative analyses. The purpose of the mixed analysis was *development*, whereby the results from one data-analytic technique informed the use of the other method (Greene, Caracelli, & Graham, 1989). Moreover, the goal of the ES-SMMA was typology development (Caracelli & Greene, 1993).

Results

Student responses to the open-ended question, "Now, please list three to six characteristics that you think make *elementary school*-level teachers effective teachers," were analyzed for emergent themes. This process involved reading and rereading participants' written responses. Consistencies were noted in individual words and phrases, yielding emergent themes. These themes were identified for each individual participant and coded into the SPSS database that already contained their demographic information. After determining that the maximum number of identified emergent themes pertaining to perceived characteristics of effective elementary school teachers for any single participant was 10, ten columns were created to record participants' themes. Codes for themes, directly written on participants' surveys, then were directly typed into a SPSS database for this study. Thus, every participant had 10 columns in which themes present in their written responses were coded. The fewest number of themes noted for any single participant was 1, with the maximum number of themes for three participants being 10. Initially, frequencies were conducted for all of the themes coded into the SPSS database. Because more than 80 individual words and/or phrases had been identified, a decision was made that a theme was present when it occurred a minimum of 21 times. The cut-point of 21 was used because it represented an endorsement rate of 5%, which translated to being close to a medium effect size (using Cohen's [1988] non-linear arcsine transformation). This procedure eliminated many words and/or phrases that occurred only a few times across the 437 participants. Through this process, a total of 20 dominant themes were identified for characteristics of effective elementary school teachers.

Once the 20 dominant themes had been identified, 20 additional columns were created for each participant, with each additional column representing a dominant theme. In each of these columns was typed either a 1, if the participant had that theme present in his/her written response, or a 0, if the participant did not have that theme present in his/her written response. Thus, the first set of 10 columns was used to determine the

Table 1

Participants' Themes, Illustrative Student Comments, and Endorsements

Theme	Description	Number of Endorsements ($n = 437$)
Patience	Patient	175
Caring	Compassion, giving, kind, affection, warm, thoughtful, gentle, sensitive, considerate, concerned, careful, appreciative, heart, nurturing	149
Positive attitude	Optimistic, happy, positive, good personality, enthusiastic, charisma, nice, energetic, personable, constructive, likeable, animated, dynamic	70
Understanding	Sympathetic, understands students, comprehend	70
Knowledgeable	Has knowledge, knows subject, knows new changes in education, knowledge of developmental stages, knowledge of student needs, knowledgeable about events outside classroom, informed	69
Teaches well	Competent, good teaching skills, good curriculum, creates good curriculum, prepares good curriculum, prepares students, prepares students for careers, helps develop students, works with students to increase strengths, tests on what teach, guides students, help struggling students, meaningful lessons, can apply knowledge, tutors, helps students learn, effective, teaches higher order thinking skills, be detailed in teaching lesson, facilitator, work with special need students, perform teaching duties, good philosophy	65
Loving	Loves children, loves working with children, enjoys working with children, loves teaching young students	63
Creativity	Innovative, non-traditional, includes arts, includes music, imagination, improvisation, spontaneous	54
Organized	Structure	46
Fun	Funny, humorous, makes school fun, sense of humor, able to laugh, entertaining	43
Passion for the job	Passion, passionate, loves job, dedicated, loves education, wants to teach, loves subject, awesome	42
Communication	Good communication skills, communicative, communicates, responsive, straight-forward, good communication between teacher & student/teacher & parent/principal & teacher/principal & parents/teacher & staff, provides tools to communicate with students (i.e. syllabus, timeline), can clarify, language/verbal skills, informative, talkative, direct, well spoken, reads body language, feedback	40
Service	Serves, student centered, loyal, conscientious, hard-worker, wants to make a difference, commitment, go extra mile, wants to teach, involved, useful, handy	37
Involving	Involves students, engaging, including, involves parents, active, gets students involved, hands-on, involvement, asks involving questions, interactive	36

Table 1 (continued)

Uses Different Modalities	Able to teach in and/or with different modalities, uses different learning styles to teach, accommodates for different learners, teach for particular age level, uses active learning, accommodates all learning needs, developmental practice, know what works best for students, shows through role playing, uses different activities, projects for students, resourceful	30
Flexibility	Easy-going, adaptable, agreeable, can improvise, easy to work with, versatile	27
Disciplinarian	Enforces rules, strict, tough, firm, focus on safety, discipline, effective consequences for students, provides sense of security, safe & secure class	26
Builds Relationships	Mentor, mentors, establishes relationship with student, learns about the student, interest in student, spends time with student, provides one on one time with student, involved with student, shares own experiences with students, approachable, loveable	23
Motivating	Motivation, encouraging, gives praise	22
Friendly	Outgoing, friend, approachable, personable	21

themes that were present across all participants, whereas this set of 20 columns was used to note the presence and absence of themes for individual participants. These themes, illustrative examples, and their frequencies are described in Table 1.

Mixing the Qualitative Data

Traditionally, once qualitative analyses have been conducted and themes identified and articulated and linked to existing literature and/or theory, the study is typically finished. This process of developing a qualitative research question, gathering qualitative information, and conducting qualitative analyses constitutes what may be termed as a monomethod research design (Johnson & Onwuegbuzie, 2004). The same description and phrase would apply to quantitative studies. That is, purely quantitative studies and purely qualitative studies constitute monomethod research designs. The present study, however, represents a mixed research design. Using Johnson and Onwuegbuzie's (2004) words, "mixed-method designs are similar to conducting a quantitative mini-study and a qualitative mini-study in one overall research study" (p. 20). Previously described has been the qualitative mini-study.

Inherent in this mixed methods research study was the use of Onwuegbuzie and Teddlie's (2003) conceptualization of the data analysis process. Thus far, the qualitative data have been reduced, from the many words and phrases used by students to describe effective elementary school teachers, to 20 dominant themes. Previously depicted have been the 20 themes and illustrative comments that reflect the first two stages of data reduction and data display, respectively. Now comes what Onwuegbuzie and Teddlie (2003) phrase as the data transformation stage "wherein qualitative data are converted into numerical codes that can be represented statistically" (i.e., *quantitized*; Tashakkori & Teddlie, 1998, p. 22). This process has also been termed as a conversion

mixed design (Teddlie & Tashakkori, 2006) in which data have been transformed or converted from one type into the other type of data and then analyzed.

To ascertain the number of factors that might be underlying the 20 dominant themes in this study, an exploratory factor analysis was conducted. Anticipated findings were that several of the themes would cluster together into a larger meta-theme. To conduct the exploratory factor analysis, a maximum likelihood factor analysis procedure was used because of its ability to provide better estimates (Bickel & Doksum, 1977) than the most commonly used factor analytic method, principal factor analysis (Lawley & Maxwell, 1971). A varimax (i.e., orthogonal) factor analysis, used because of the anticipated low relationships among the 20 dominant themes, extracted latent constructs, or as conceptualized by Onwuegbuzie (2003), meta-themes.

In conducting the varimax factor rotation, K1, or the eigenvalue-greater-than-one rule (Kaiser, 1958), was used to ascertain how many factors to keep. Using this rule, five factors or meta-themes were revealed to be present. The scree test, a plot of eigenvalues in descending order against the five factors, also supported keeping five factors (Cattell, 1966; Zwick & Velicer, 1986), which are depicted in Table 2. In determining the minimum value for structure coefficients, we used the recommended cutoff correlation of .3 (Lambert & Durand, 1975). Table 2 shows, for the five-factor model that resulted from the analysis, the themes and their effect sizes in bold. Having significant structure/pattern coefficients on the first factor were the themes of Caring, Uses Different Modalities, Involving, and Teaches Well. For the second factor, themes with themes with structure/pattern coefficients that represented large effect sizes were Disciplinarian, Flexibility, Loving, Motivating, and Patience. Having significant structure/pattern coefficients on the third factor were Communication, Passion for the Job, a Positive Attitude, and Understanding. For the fourth factor, the themes of Creativity, Friendly, Organized, and Service had structure/pattern coefficients that represented large effect sizes. Finally, the themes of Fun, Knowledgeable, and Builds Relationships loaded on Factor Five.

Student-centered and Transmitter (i.e., Factor 1) was the name given for the meta-theme that contained the dominant themes of Caring, Uses Different Modalities, Involving, and Teaches Well. These two terms, we believe, express the essence of student responses in these areas. For the Factor 2 meta-theme that contained the dominant themes of Disciplinarian, Flexibility, Loving, Motivating, and Patience, the label of *Responsive* was given. These dominant themes involved a teacher responding to student behaviors and/or needs. Communication, Passion for the Job, a Positive Attitude, and Understanding themes comprised the meta-theme of Enthusiastic, Empathetic, and Communicative (i.e., Factor 3). The Factor 4 meta-theme, containing the themes of Creativity, Friendly, Organized, and Service, was called *Professional and Director*. Finally, the meta-theme of *Expert and Connector* (i.e., Factor 5) was assigned to the five dominant themes of Fun, Knowledgeable, and Builds Relationships. Table 3 provides a description of each meta-theme and presents the dominant themes contained in each meta-theme. Table 3 also contains what Onwuegbuzie (2003) referred to as

manifest frequency effect sizes for each meta-theme, which represented the combined frequency effect size for the themes within it. It can be seen here the responsive meta-theme contained the largest absolute manifest effect size (i.e., .65.45%), followed closely by the student-centered and transmitter meta-theme (i.e., 64.07%). The expert and connector had the smallest manifest effect size (i.e., 30.89%), although this effect size is still notable.

In looking at the proportion of the variance explained, or the eigenvalue after rotation (trace) (Hetzel, 1996), readers can see that Factor 1 accounted for 7.97% of the total variance, Factor 2 explained 6.69% of the variance, Factor 3 accounted for 6.64% of the total variance, Factor 4 explained 6.33% of the variance, and Factor 5

Table 2

Summary of Themes and Factor Pattern/Structure Coefficients from Maximum Likelihood (Varimax) Factor Analysis: Five-Factor Solution

Theme	1	2	3	4	5
Uses Different Modalities	**-.675**	-.031	-.055	-.021	.120
Teaches Well	**-.656**	.012	.009	.029	.083
Caring	**.505**	.124	-.031	-.078	.098
Involving	**-.395**	.124	-.054	-.189	-.040
Disciplinarian	.126	**.579**	.011	-.087	-.021
Motivating	-.009	**.629**	.146	-.012	-.123
Patience	.244	**-.381**	-.103	.155	-.259
Loving	.152	**-.413**	.146	-.218	-.112
Flexibility	.140	**.355**	-.262	.027	.117
Positive Attitude	.091	-.125	**.575**	.085	-.113
Understanding	.202	-.106	**-.558**	.027	-.292
Communication	-.026	-.050	**-.533**	-.012	.057
Passion for the Job	.185	.024	**.320**	-.308	.065
Creativity	.133	.021	.252	**.528**	-.008
Service	.188	-.176	.153	**-.514**	.189
Organized	.083	.060	.024	**.449**	.394
Friendly	.066	-.170	-.006	**.424**	.034
Fun	-.038	.142	.275	.217	**-.617**
Knowledgeable	.028	.005	.009	.229	**.572**
Builds Relationships	-.168	.142	.081	-.129	**.324**
Trace	1.59	1.34	1.33	1.27	1.25
% Variance Explained	7.97	6.69	6.64	6.33	6.26

Note. Coefficients in bold represent pattern/structure coefficients with the largest effect size within each theme using a cutoff value of .3 recommended by Lambert and Durand (1975).

Table 3

Meta-Themes Found in Participants' Characteristics of Effective Elementary School Teachers

Factor	Themes	Meta-Themes	Meta-Theme Descriptors	Relative Manifest Effect Size[a] (%)	Absolute Manifest Effect Size[b] (%)
1	Caring, Uses Different Modalities, Involving, and Teaches Well	Student-centered and Transmitter	Considerate, accommodates for different learners, gets students involved, and good teaching skills	25.90	64.07
2	Disciplinarian, Flexibility, Loving, Motivating, and Patience	Responsive	Enforces rules, adaptable, loves working with children, encouraging, and patient	26.46	65.45
3	Communication, Passion for the Job, a Positive Attitude, and Understanding	Enthusiastic, Empathetic, and Communicative	Good communication skills, loves education, optimistic, and understands students	20.54	50.80
4	Creativity, Friendly, Organized, and Service	Professional and Director	Innovative, approachable, provides structure, and goes the extra mile	14.62	35.16
5	Fun, Knowledgeable, and Builds Relationships	Expert and Connector	Sense of humor, informed, and establishes relationships with students	12.49	30.89

Note. [a]Relative manifest effect sizes represent the number of times the themes contained within a meta-theme are endorsed divided by the total number of times all 20 dominant themes are endorsed. Thus, these effect sizes sum to 100%.

[b]Absolute manifest effect sizes represent the number of times the themes contained within a meta-theme are endorsed divided by the total number of participants.

accounted for 6.26% of the total variance. These five meta-themes combined to account for 33.89% of the total variance. As indicated by several researchers (e.g., Henson, Capraro, & Capraro, 2004; Henson & Roberts, 2006), the proportion of explained

variance in this study is within the range noted in many factor-analytic studies.

Next, the quantitized qualitative data were analyzed to determine the extent to which, if any, that participants differed in the characteristics they mentioned for effective elementary school teachers. For each theme, each participant's qualitative response had been converted into either a 1 (theme present for that participant) or into a 0 (theme not present for that participant) via the inter-respondent matrix. Thus, each participant had a series of 1s and 0s for the 20 characteristics for effective elementary school teachers.

Following this conversion, frequencies of participants' themes were calculated for each of the independent variables. Depicted in Table 4 are the percentages of males and of females who had each theme present in their listing of effective elementary school teachers.

For males, the themes that occurred most frequently were *Caring* (34.5%)*, Patience* (33.3%)*,* and *Teaches Well* (20.7%)*.* For females, the themes that occurred most frequently were *Patience* (41.5%) and *Caring* (34.1%)*.* No other themes received more than a 20% endorsement rate either for male or female participants.

Frequencies were next calculated by college status − that is, whether participants were undergraduate or graduate students. Table 5 depicts the percentage of respondents in each group who had each theme present in their written responses.

Frequencies were next calculated by whether the participant was a first-generation college student or was a non-first-generation college student. Table 6 depicts the percentage of respondents in each group that had each theme present in their written responses. For both first-generation and non-first-generation college students, their first two themes occurred at approximately the same rate.

To determine whether the endorsement rate of these dominant themes differed as a function of gender, site at where the survey was completed, whether participants were undergraduate or graduate students, and whether or not participants were first-generation college students, a series of *All Possible Subsets* canonical discriminant analysis procedures was conducted. Each of the above variables mentioned served as independent variables in separate analyses with the themes as the dependent variables in the analysis. All possible models involving some or all of the thematic variables were examined. Indeed, in APS discriminant analyses, separate discriminant functions are computed for all thematic variables singly, all possible pairs of thematic variables, all possible trios of thematic variables, and so forth, until the best subset of thematic variables is identified according to some criteria. For this study, the criteria used were Wilk's lambda, the probability level, the canonical correlation, the standardized canonical discriminant function coefficients, the structure coefficients, the odds ratio (primary effect-size measure). The APS discriminant analysis is different from *stepwise* discriminant analysis, in which the order of entry of variables is based solely on the probability level. In fact, stepwise discriminant analysis is not guaranteed to find the optimal model, and thus many statisticians do not recommend this type of analysis,

Table 4

Participants' Themes in Percentages for Perceived Characteristics of Effective Elementary School Teachers Separated by Gender

Theme	Male %	Female %
Patience	33.3	41.5
Caring	34.5	34.1
Knowledgeable	19.5	14.9
Positive Attitude	16.1	16.0
Understanding	18.4	15.5
Teaches Well	20.7	13.5
Loving	10.3	15.5
Creative	10.3	12.9
Organized	6.9	11.5
Fun	10.3	9.7
Passion Toward Job	6.9	10.3
Communication	6.9	9.7
Service	9.2	8.3
Involving	5.7	8.9
Uses Different Modalities	10.3	6.0
Flexibility	9.2	5.2
Disciplinarian	9.2	5.2
Motivating	8.0	4.3
Builds Relationships	5.7	5.2
Friendly	5.7	4.6

Note. Percentages for males were based on 87 participants, whereas the percentages for females were based on 349 participants.

preferring some form of canonical discriminant analysis (Onwuegbuzie & Daniel, 2003).

Concerning student gender, no statistically significant function was revealed, $ps > .05$. Regarding whether or not the participant was a first-generation college student, the resulting discriminant function was statistically significant, $\chi^2(5) = 13.49$, $p = .019$, and accounted for 100.0% of the between-groups variance (canonical $R = .176$; Λ

Table 5

Participants' Themes in Percentages for Perceived Characteristics of Effective Elementary School Teachers Separated by College Status

Theme	Undergraduate %	Graduate %
Patience	40.5	39.5
Caring	33.2	36.1
Knowledgeable	10.0	27.2
Positive Attitude	14.9	18.4
Understanding	16.3	15.6
Teaches Well	13.1	18.4
Loving	15.2	12.9
Creative	12.8	11.6
Organized	7.6	16.3
Fun	12.1	5.4
Passion Toward Job	7.3	14.3
Communication	9.3	8.8
Service	7.3	10.9
Involving	8.0	8.8
Uses Different Modalities	6.9	6.8
Flexibility	3.5	11.6
Disciplinarian	4.8	8.2
Motivating	5.2	4.8
Builds Relationships	4.8	6.1
Friendly	5.5	3.4

Note. Percentages for Undergraduates were based on 289 participants, whereas the percentages for graduates were based on 147 participants.

= .969). The group centroids were -.20 for first generation college students and .16 for non-first-generation college. This discriminant function contained the following five themes: Teaches Well (Standardized Coefficient = 0.65), Service (Standardized Coefficient = 0.48), Caring (Standardized Coefficient = 0.46), Positive Attitude (Standardized Coefficient = 0.38), and Loving (Standardized Coefficient = 0.36). An examination of the standardized coefficients indicated that, using a cutoff value of 0.3 for structure/pattern coefficients (Lambert & Durand, 1975), all five items made an important contribution to the canonical function, with the theme of Teaches Well making the largest contribution. The positive standardized coefficients indicate that the non-first-generation college students were more likely than were first-generation college students to endorse the

Table 6

Participants' Themes in Percentages for Perceived Characteristics of Effective Elementary School Teachers Separated by First Generation or Non-First-Generation College Status

Theme	First-Generation %	Non-First-Generation %
Patience	41.3	39.2
Caring	30.7	37.1
Knowledgeable	14.8	16.7
Positive Attitude	13.2	18.4
Understanding	16.4	15.1
Teaches Well	11.1	17.6
Loving	12.2	16.3
Creative	13.8	11.4
Organized	11.1	10.2
Fun	10.6	9.4
Passion Toward Job	11.6	8.2
Communication	9.5	9.0
Service	5.8	10.6
Involving	7.4	8.6
Uses Different Modalities	6.3	6.9
Flexibility	5.8	6.1
Disciplinarian	6.9	4.9
Motivating	3.7	6.1
Builds Relationships	5.3	5.3
Friendly	4.8	4.9

Note. Percentages for First-Generation college students were based on 189 participants whereas the percentages for Non-First-Generation college students were based on 245 participants.

Teaches Well (17.6% vs. 11.1), Service (10.6% vs. 5.8%), Caring (37.1% vs. 30.7), Positive Attitude (18.4% vs. 13.2%), and Loving (16.3% vs. 12.2%) themes.

An APS canonical discriminant analysis comparing undergraduate and graduate students revealed a statistically significant function, $\chi^2(4) = 44.89$, $p < .001$, and accounted for 100.0% of the between-groups variance (canonical $R = .314$; $\Lambda = .90$). The group centroids were -.24 for undergraduate students and .46 for graduate students. This discriminant function contained the following four themes: Knowledgeable (Standardized Coefficient = 0.68), Flexibility (Standardized Coefficient = 0.49), Passion for the Job (Standardized Coefficient = 0.40), and Organized (Standardized Coefficient = 0.38). An examination of the standardized coefficients indicated that,

using a cutoff value of 0.3 for structure/pattern coefficients (Lambert & Durand, 1975), all four items made an important contribution to the canonical function, with the theme of Knowledgeable making the largest contribution. The positive standardized coefficients indicate that the graduate college students were more likely than were undergraduate college students to endorse the Knowledgeable (27.2% vs. 10.0%), Flexibility (11.6% vs. 3.5%), Passion for the Job (14.3% vs. 7.3%), and Organized (16.3% vs. 7.6%) themes.

Next, the number of themes that each participant contributed was summed to generate a variable. This variable was continuous in nature, unlike the previous dichotomous present-absent variables. As such, analysis of variance (ANOVAs) was utilized to ascertain whether differences might be present in the number of themes present in participant responses as a function of demographic characteristic. A statistically significant difference was not present as a function of site at which these data were gathered at the traditional level of statistical significance, $F(1, 435) = 3.41$, $p = .065$, $\eta^2 = .089$, small effect size. Participants who were students at University A wrote an average of 2.66 characteristics ($SD = 1.35$), compared with an average of 2.42 ($SD = 1.30$) characteristics for participants at University B. This finding justified the pooling of responses from the two sites.

A statistically significant difference was present in the number of themes (i.e., characteristics) that emerged between undergraduate and graduate students, $F(1, 434) = 12.41$, $p < .001$. The effect size, $\eta^2 = .17$, represented a small-to-moderate effect size. Specifically, graduate students contributed an average of 2.85 characteristics ($SD = 1.38$), compared with an average of 2.38 ($SD = 1.27$) characteristics for undergraduate students.

A statistically significant difference was not present between men and women in the number of themes they wrote, $F(1, 434) = 0.09$, $p = .766$. Male participants contributed an average of 2.57 characteristics ($SD = 1.42$), compared with an average of 2.53 ($SD = 1.42$) characteristics for female participants. Similarly, no difference was found between first-generation college students and non-first-generation counterparts in the number of themes that were extracted, $F(1, 432) = 2.36$, $p = .125$. First-generation college students contributed an average of 2.42 characteristics ($SD = 1.24$), compared with an average of 2.62 ($SD = 1.32$) characteristics for non-first-generation college students.

In summary, the non-first-generation college students were more likely than were first-generation college students to endorse the Teaches Well, Service, Caring, Positive Attitude, and Loving themes. Further, the graduate college students were more likely than were the undergraduate college students to endorse the Knowledgeable, Flexibility, Passion for the Job, and Organized themes. Finally, the graduate students contributed statistically significantly more characteristics than did the undergraduate students. No other statistically significant or practically significant findings emerged.

Discussion

The purpose of the present study was to examine the views of Hispanic college students regarding the characteristics of effective elementary school teachers. Moreover, the extent to which demographic characteristics of this sample were related to their views of effective elementary school teachers was investigated. Participants were 437 Hispanic students enrolled at one of two Hispanic-Serving Institutions located in the Southwest. Because of the uniqueness of this sample, the present study makes a large contribution to the literature.

Using mixed analysis techniques and a relatively large sample size, the perceptions held by Hispanic college students of characteristics of effective elementary school teachers were found to be essentially multidimensional. Specifically, perceptions were identified that led to the following 20 dominant themes: Patience; Caring; Knowledgeable; Positive Attitude; Understanding; Teaches well; Loving; Creative; Organized; Fun; Passion for the Job; Communication; Service; Involving; Uses different modalities; Flexibility; Disciplinarian; Motivating; Builds relationships; and Friendly. Of these themes, Patience received the highest endorsement, with 40% of the participants using descriptors that were classified as belong to this theme. This finding was followed by the Caring theme, which received an endorsement rate of 34.1%. All other themes were endorsed by 16% of the total number of participants or less. Thus, Patience and Caring were by far the most dominant themes or the sample as a whole. These two themes also were by far the most dominant for both males and females. This result is somewhat consistent with Reed and Bergemann (1992), who identified patience as being 1 of the 13 "non-measurable" skills that effective teachers possess (the remaining skills were classified as being "measurable" such as knowledge of subject matter, effective and efficient use of time, clear communication, and organization). Caring also would be considered as a non-measurable skill.

The finding that patience and caring were the two most prevalent themes also is somewhat consistent with both Minor et al. (2001) and Witcher et al. (2001) because both these sets of researchers classified patience and caring as representing student-centeredness, which was the most prevalent theme in both studies, as noted earlier. Interestingly, however, whereas in the present study, caring was classified empirically (i.e., via a factor analysis) as belonging to the student-centered and transmitter meta-theme, patience was classified empirically as belonging to the responsive meta-theme.

The finding that the meta-theme that included student-centeredness (i.e., student-centered and transmitter) represented descriptors that received relatively high endorsement rates is consistent with the results of both Witcher et al. (87% Caucasian-American and 10% African-American) and Minor et al. (72% Caucasian-American) who assessed preservice teachers' perceptions about characteristics of effective K-12 teachers. Thus, it appears that Hispanic students, similar to Caucasian-American and African-American students, consider student-centeredness to be an extremely

important characteristic of effective instruction for teachers at the elementary and/or secondary levels. Consequently, Wubbels, Levy, and Brekelmans' (1997) contention that competent teachers are effective in developing and nurturing student-teacher relationships and that a solid student-teacher relationship is conducive to a positive classroom climate appears to be relevant across ethnic lines. Interestingly, the importance of student-centeredness also is consistent with the results of Onwuegbuzie, Witcher, Collins, Filer, Wiedmaier, and Moore (2007), who examined college students' perceptions about the characteristics of effective college instructors.

A finding that contrasts with the results of previous studies involving Caucasian-American and African-American students is that the responsive meta-theme was the most highly endorsed. The responsive meta-theme includes being a disciplinarian, flexible, loving, motivating, and patient. Thus, these attributes appear to be important for Hispanic college students. In addition, the attributes of caring and patience are important to cultivating student skills necessary for effective advocacy for social justice (Lopez et al., 2006; Ruben & Justice 2005). Critical inquiry competencies also foster the development of skills necessary for positive social change (Ruben & Justice 2005). Respondents in this study cited the importance of teaching well, involving students and using different modalities, all of which can promote critical thinking skills. Teachers in demographically challenged areas can put these skills to use in preparing students to lead efforts to improve the quality of life.

Being an enthusiastic, empathetic, and communicative teacher was the third most endorsed meta-theme. This meta-theme, similar to the previous two meta-themes, predominantly represents what the American Association of School Administrators (AASA) refer to as personal characteristics — one of the two categories of effective teacher characteristics identified by the AASA (Deman-Burger, 1986). The other category of effective teacher characteristics was termed professional characteristics.

The last two meta-themes, namely, professional and director, and expert and connector, represent the other effective-teacher category of professional characteristics identified by the AASA, namely, management and instructional techniques (Deman-Burger, 1986). In particular, the emphasis in the professional characteristics area is placed on management and instructional techniques. Managing the classroom environment such as students can learn and teaching in organized ways, as well as demonstrating knowledge of the content area, is depicted by the last two meta-themes.

The findings that college status (i.e., undergraduate vs. graduate) and first-generation / non-first-generation status predict endorsement of some of the themes suggest that individual differences exist with respect to Hispanic college students' perceptions of the characteristics of effective elementary school teachers. It may be that Hispanic students who are academically very motivated (i.e., completed an undergraduate degree and then enrolled in graduate studies) differ in their perspectives on what constitutes effective elementary school students from Hispanic students who are not as academically motivated. Further study is needed in this area. With regard to

first-generation/non-first-generation college students, individual differences that were found may directly relate to the degree of academic success experienced within their family structure. That is, non-first-generation Hispanic college students have more familial experience with academic success than do first-generation Hispanic college students. Researchers are encouraged to investigate this area further by obtaining more detailed information concerning parental educational status and relating differences found with theme endorsement.

Because Hispanic-Serving Institutions have very unique features (Santiago, 2006) such as being located in areas with large concentrations of Hispanics, in urban areas, and graduating a high percentage of all Hispanics who earn college degrees, it is not clear the extent to which the present findings are generalizable (i.e., have adequate external validity) to Hispanic students from other institutions, particularly those institutions from other regions of the United States. Notwithstanding, this investigation has made an important contribution to the literature on effective teaching in general and the effective teaching of Hispanic elementary school students in particular. Because the sample members represent individuals who were academically successful at the primary and secondary school levels inasmuch as they ended up enrolling in college suggests that they have an important story to tell as to what makes teachers effective. Thus, it can be assumed that the themes and meta-themes extracted from the students' stories have provided useful information as to the characteristics of effective teaching that might help Hispanic students be successful at the elementary school level.

With the number of Hispanic-Serving Institutions growing (Santiago, 2006) and with a greater emphasis placed on Hispanic students going to college (Santos, 2004), a strong need exists to understand better the perspectives of Hispanic students. Knowing their views of effective teachers, not only at the elementary level but at the middle and high school levels, could lead to changes made in teacher education programs and in professional development activities to target more directly needs specific to this ethnic group. As indicated by Santiago (2006), the Hispanic population, and particularly Hispanic-Serving Institutions, are understudied. Given the presence of cultural differences, it behooves researchers to investigate these issues using Hispanic samples. Moreover, we encourage researchers to consider using a mixed analysis such as was utilized in this study. Combining the assets of quantitative and of qualitative research data collection strategies may enhance and deeper the understandings that can be obtained.

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