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Preservice Teachers' Educational Beliefs and Their Perceptions of Characteristics of Effective Teachers

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Abstract

The purpose of this study was to examine preservice teachers' perceptions of characteristics of effective teachers, as well as to investigate whether these perceptions are related to educational beliefs (i.e., progressive vs. transmissive). Data for this study were collected from 134 preservice teachers enrolled in several sections of an introductory-level education class for education majors at a large university in South Georgia. During the first week of classes, students were given (a) a questionnaire asking them to identify, to rank, and to define characteristics they believe excellent teachers possess or demonstrate and (b) a published survey that identified participants' educational beliefs as either progressive or transmissive.

A phenomenological analysis of responses revealed several characteristics that many of the preservice teachers considered to reflect effective teaching. In order of endorsement level, the following seven themes emerged from these characteristics: (a) student-centered (55.2%), (b) effective classroom and behavior manager (33.6%), (c) competent instructor (33.6%), (d) ethical (29.9%), (e) enthusiastic about teaching (23.9%), (f) knowledgeable about subject (19.4%), and (g) professional (15.7%). Using the Bonferroni adjustment, a series of chi-square analyses revealed no relationship between the seven perception categories of effective teachers and preservice teachers' year of study, preferred grade level for teaching, and educational belief. However, significantly more males than did females endorsed teacher characteristics that were associated with being an effective classroom and behavior manager.

Preservice Teachers' Educational Beliefs and Their Perceptions of Characteristics of Effective Teachers

For at least 20 years, teacher education researchers and program designers have given attention to the issue of how preservice candidates learn to teach, broadly defined to include a host of topics from how students learn to what constitutes good teaching. Emerging from this research is strong data that support the position that what preservice teachers bring with them (e.g., experiences, knowledge, dispositions, beliefs, attitudes, perceptions) upon entry into formal preparation programs greatly influence their subsequent development as both students and practitioners of teaching (Carter, 1990; Day, Calderhead, & Denicolo, 1993; Witherell & Noddings, 1991). This research study and line of inquiry both represent a starting point for engaging preservice candidates in self-reflection for purposes of examining and confronting entering beliefs and values they hold regarding various aspects of the practice of teaching.

Doyle (1997) investigated the influence of education programs on preservice teachers' beliefs. Doyle found preservice teachers' beliefs changed from viewing teaching and learning as a passive act of teachers giving the information to students to a belief that teaching and learning are active processes in which teachers should act as facilitators. Two important influences on the changes in preservice teachers' beliefs were experiences gained while teaching in the field and the preservice teachers' abilities to reflect upon and to analyze their experiences. Length of time in a teacher education program and the amount of field experience were identified as important factors in assisting preservice teachers in the development of their beliefs as they progress through the teacher education program. Doyle suggested the need for teacher educators to encourage preservice teachers to challenge their own beliefs when these beliefs contradict what

they experience in the field. Similarly, according to So (1997), reflective teaching has emerged as an approach to teacher education whereby preservice teachers are asked to think about their attitudes, beliefs, and assumptions, and to use reflection as a means to promote self-evaluation and change.

Having students identify characteristics of effective teachers is often an early goal in teacher preparation programs. In some cases, students examine textbook definitions of effective teachers and then discuss the characteristics as exemplified by teachers in their own K-12 schooling experience. In other cases, students are asked to think about past teachers, name qualities they believe reflect effectiveness, and then examine how well the qualities they identified match textbook definitions. These textbook definitions generally describe effective teachers as knowledgeable, self-confident, and enthusiastic, with strong communication and management skills, clear instructional focus, and high expectations of self and students (e.g., Reed & Bergemann, 1992; Segall & Wilson, 1998). One need not look far into the literature to find further characteristics of effective teachers as identified through research.

Effective teachers are profiled as having strong cognitive skills (Cotton, 1995; Demmon-Berger, 1986; Educational Testing Service [ETS], 1997; Finn, 1993; Good & Brophy, 1994; Redfield & Rousseau, 1981; Rosenshine & Stevens, 1986; The National Board for Professional Teaching Standards [NBPTS], 1987; Tobin, 1987; Wortruba & Wright, 1975; Wubbles, Levy, & Brekelmans, 1997). They are subject specialists who are able to select, organize, and deliver content; efficient and effective in the use of instructional time; and able to vary their teaching strategies according to student needs. They are creative, encourage active student participation, make relevant assignments, arrange for plenty of successful engaged time, are skillful in using

questions, promote both critical and creative thinking, and employ the use of wait-time when seeking student response. In addition, they provide feedback, monitor programs and progress, use both traditional and alternative assessment, and are fair in assessment and grading procedures. Finally, these teachers reflect upon their practice and learn from their experiences, and they are members of learning communities, interested in continuing their own professional development.

Effective teachers also are described as caring (Cotton, 1995; Demmon-Berger, 1986; ETS, 1997; Norton, 1997; Roueche, Baker, Mullin, & Boy, 1986; Wubbels et al., 1997). Furthermore, they are motivators who provide incentives through recognition and rewards, flexible in their abilities to be both dominant and cooperative, and empathetic yet in control. They have strong interpersonal skills, handle discipline through prevention, and they promote a classroom climate of respect and rapport that reflects their commitment to students and their learning.

The American Association of School Administrators (AASA) investigated characteristics of effective teachers and concluded that qualities tend to fall into two categories: (a) management and instructional techniques and (b) personal characteristics (Demmon-Berger, 1986). In general, the AASA describes effective teachers as good managers who handle discipline through prevention; who use systematic, yet varied, instructional techniques; who are knowledgeable of subject matter and task oriented while tailoring teaching to student needs; who are highly flexible, enthusiastic, and imaginative and emphasize perceptual meanings more than facts and events; who believe in their own abilities and have high expectations; who are democratic in their approach and display warmth, care, and concern when interacting with students; and who

are readily accessible outside of class.

Of the investigations undertaken in the area of teacher effectiveness, most have examined actual characteristics of effective teachers or have asked inservice teachers and educational theorists about their beliefs regarding effective teaching; that is, few researchers have studied the *perceptions* of preservice teachers concerning the attributes of effective teachers. Moreover, most of the investigations have used qualitative techniques (e.g., interview) with small samples. A paucity of studies has incorporated qualitative and quantitative analyses within the same framework.

Knowing preservice teachers' perceptions of effective teachers and teaching is a necessary precondition for identifying program experiences that require candidates to confront their own beliefs and to consider the appropriateness of those beliefs in the context of the research, promising practice, psychological theories, and philosophical beliefs that underpin professional goals and practice. Indeed, the ability to reflect upon entering beliefs and to change ill-founded beliefs is consistent with the expectations of the Interstate New Teacher Assessment and Support Consortium (INTASC, 1992) and the National Council for the Accreditation of Teacher Education (NCATE, 2002).

The role of beliefs as a determinant of teacher change has received increasing attention among researchers over the last several years, and a substantial body of evidence has emerged during this time suggesting that teacher beliefs drive instructional pedagogy (e.g., Pajares, 1992; Richardson, 1996; Thompson, 1992). In order to change teaching practices, teachers' beliefs should be taken into consideration (Hart, 2002). According to Pajares (1992), beliefs about teaching, which include perceptions about what it takes to be an effective teacher, are formed

before a student enters college. These beliefs are then either challenged or nurtured during what Lortie (1975) termed as a period of apprenticeship of observation, which occurs throughout the teacher training program. Thus, as recommended by Hart (2002, p. 4), “it seems imperative that teacher education programs assess their effectiveness, at least in part, on how well they nurture beliefs that are consistent with the program’s philosophy of learning and teaching.”

Recently, Witcher, Onwuegbuzie, and Minor (2001), using mixed-methodological approaches, found that preservice teachers’ perceptions of effective teachers fell into the following six categories, in order of endorsement level: (a) student-centeredness (79.5%), (b) enthusiasm for teaching (40.2%), (c) ethicalness (38.8%), (d) classroom and behavior management (33.3%), (e) teaching methodology (32.4%), and (f) knowledge of subject (31.5%). Additionally, these authors noted that females, college-level juniors, and minority students tended to endorse teacher characteristics that were associated with ethical behavior and teaching methodology to a greater extent than did the other participants in the study (e.g., White males and non-juniors). Also, they tended to rate attributes that were associated with knowledge of subject and classroom and behavior management to a lesser degree.

Thus, the objective of the present inquiry was to replicate and to extend the work of Witcher et al. (2001). Specifically, the purpose of this study was to investigate what preservice teachers view as important characteristics of effective teachers, with the intent of comparing their responses to descriptions provided in the literature. Also of interest was to investigate factors (e.g., educational beliefs, gender, ethnicity, and year of study) that may influence their responses. It was hoped that results from the present inquiry would allow teacher education faculty and candidates to design experiences (e.g., readings, practica, case studies) that assist candidates in

developing conceptual models of effective teaching that will guide their decision-making once they assume responsibilities as practitioners.

Method

Participants

Participants were 134 preservice teachers who were enrolled in several sections of an introductory-level education class for education majors at a large university in South Georgia. The majority of the sample was female (78.4%) and White (72.4%). With regard to year of study, participants were either freshman (10.4%), sophomore (59.0%), junior (23.1%), senior (2.2%), or graduate (1.5%). Nearly all students (94.0%) were full-time students. Approximately one-half (i.e., 40.0%) of the preservice teachers intended to teach at the kindergarten and elementary school levels, 32.3% desired to teach at the secondary school level, 12.3% desired to teach at the middle school level, and the remaining 15.4% wanted to work as special educators. Approximately one-third (34.3%) of the participants preferred to teach in a public school in a rural area, one-fourth (24.6%) wanted to teach in a public school in a suburban area, and 20.1% expressed a desire to teach in an urban public school. The remainder preferred to teach in either a church-sponsored private school (12.7%) or a non-denominational private school (5.2%).

Instruments and Procedures

During the first week of the class, participants were administered the Preservice Teachers' Perceptions of Characteristics of Effective Teachers Survey (PTPCETS) and the Witcher-Travers Survey of Educational Beliefs (WTSEB). The PTPCETS asks participants to identify, to rank, and to define between 3 and 6 characteristics they believe effective teachers possess or demonstrate in general. Because responses to the PTPCETS are open-ended,

information about reliability was not appropriate. The WTSEB, which was developed by Witcher and Travers (1999), contains two parts. Whereas the first part elicits demographic information (e.g., gender, age) from the respondents, the second section contains a 40-item, 5-point Likert-type scale. Respondents are requested to react to statements by making one of the five possible choices: *SA = strongly agree*, *A = agree*, *U = undecided*, *D = Disagree*, or *SD = Strongly Disagree*. Of the 40 items, 20 statements indicate a transmissive view and 20 statements reflect a progressive view of education. These two labels, transmissive and progressive, are used only to organize statements that reflect the dichotomy faced in education over the last century. This dichotomy is represented in the works of such persons as Hyman Rickover, Arthur Bestor, and E.D. Hirsh for the transmissive models and John Dewey, Jerome Bruner, and Lev Vygotsky for progressive models. Sample items that represent a transmissive viewpoint are (a) “Effective teachers dispense content knowledge in a sequenced, systematic, and efficient manner” and (b) “Since life is competitive, students should be evaluated on standardized tests according to how they compare with others in most subjects.” Conversely, sample items that indicate a progressive orientation are (a) “Vocational education and the study of liberal arts are equally important” and (b) “The basic purpose of formal education is to assist in the complete development of the total personality.”

According to the instrument developers, the WTSEB can be completed in approximately 15 minutes (Witchers & Travers, 1999). Responses are scored by computer. Possible scores range from 0 to 40, with higher scores (i.e., greater than 23) indicating interest in progressivism and lower scores (i.e., less than 17) indicating a transmissive orientation. Scores occurring in the range of 17 to 23 indicate an eclectic viewpoint. Witcher and Travers (1999) further note that the

terms “higher” and “lower” do not denote values of superiority or inferiority.

Originally, the WTSEB was mailed to a random sample of 70 Arkansas public school superintendents in January 1996. Superintendents were requested to complete and to return the survey within a period of two weeks. In April 1996, a second copy of the survey was mailed to those superintendents who responded to the initial mailing. Again, superintendents were asked to complete and to return the survey within a two week period of time. A total of 65 superintendents participated in completing both the pre- and post-tests. These paired responses were recorded and compared for the purpose of establishing test-retest reliability. A coefficient of .63 was noted by the authors (Witcher & Travers, 1999).

As recommended by many researchers (e.g., Onwuegbuzie, in press; Onwuegbuzie & Daniel, 2002, in press; Thompson & Vacha-Haase, 2000), reliability coefficients always should be reported for the data at hand. Unfortunately, no reliability information was available for the WTSEB for the present study because participants were not scored as a group; rather, each sample member’s responses were scored individually.

Analysis

A multi-stage qualitative-quantitative analysis (Onwuegbuzie, 2001; Onwuegbuzie & Teddlie, 2002) was used to analyze the data. Specifically, a sequential mixed analysis was undertaken in which data were analyzed sequentially (Onwuegbuzie & Teddlie, 2002). This form of analysis involved four stages. The first stage consisted of a phenomenological mode of inquiry (*inductive, generative, and constructive*) to examine the responses of students regarding their perceptions of characteristics of effective teachers (Goetz & Lecompte, 1984). In order to determine the percentage of students who cited each attribute, these data were *unitized*; that is,

units of information served as the basis for defining a significant statement (Glaser & Strauss, 1967). Each unit corresponded to a unique characteristic (Lincoln & Guba, 1985).

The *method of constant comparison* (Glaser & Strauss, 1967) was utilized in order to categorize units that appeared similar in content. Each one of the categories represented a distinct theme. This method of analysis revealed a number of themes relating to students' perceptions of characteristics of effective teachers.

The second stage of the analysis involved using descriptive statistics to analyze the hierarchical structure of the emergent themes (Onwuegbuzie, 2001). In particular, each theme was *quantitized* (Tashakkori & Teddlie, 1998). Specifically, for each participant, a score of A1" was given for a theme if the theme was represented in at least one of the stated characteristics that the student listed; otherwise, a score of A0" was given for that theme. That is, for each sample member, each theme was quantitized either to a A1" or a A0" depending on whether it was represented by that individual. Such quantitizing allowed the frequency of each theme to be calculated. From these frequencies, percentages were computed to determine the prevalence rates of each theme. These prevalent rates served as effect size measures (Onwuegbuzie, 2001; Onwuegbuzie & Teddlie, 2002).

The third stage of the analysis involved a series of chi-square analyses to determine which background variables were related to each of the themes. A Bonferroni adjustment was used to maintain the error rate at the 5% level of significance. The fourth and final stage involved an exploratory factor analysis to ascertain the underlying structure of these themes. This factor analysis determined the number of factors underlying the themes. These factors, or latent constructs, represented *meta-themes* (Onwuegbuzie, 2001; Onwuegbuzie & Teddlie, 2002) such

that each meta-theme contained one or more of the emergent themes. The *trace*, or proportion of variance explained by each factor after rotation, served as a *latent* effect size for each meta-theme (Onwuegbuzie, 2001). Additionally, a manifest effect size was computed for each meta-theme by determining the combined frequency effect size for themes within each meta-theme (Onwuegbuzie, 2001).

Results

Using cut-off scores for the WTSEB advocated by Witcher and Travers (1999), participants distributed themselves as follows: 28.4% were transmissive, 12.7% were progressive, and 59.0% were eclectic. Table 1 presents the themes that emerged from students' responses. It can be seen that the following seven themes surfaced from these responses: student-centered, effective classroom and behavior manager, competent instructor, ethical, enthusiastic about teaching, knowledgeable about subject, and professional.

Verbatim examples of student-centered include "love of students," "optimism," "supportive," "kind," "caring," and "patient"; descriptors of effective classroom and behavior manager are "authoritative," "leadership skills," and "alert"; examples of competent instructor are "creativity," "open to new teaching styles," "clarity in teaching subject," and "ability to spark child's interest"; words that describe ethical are "fairness," "honest," and "trustworthy," "impartial," "dependable," and "reliable"; examples that characterize enthusiastic about teaching are "love of subject," "passion for teaching," "eager to teach," and "dedicated"; knowledgeable about subject include descriptors such as "efficiently teach and know material" and "knowledge of subject"; and examples of professional are "disciplined" and "good communicator."Student-centered descriptors received the greatest endorsement. Specifically, more than one-half of

preservice teachers noted one or more characteristics representing this theme. Effective classroom and behavior manager and competent instructor each were endorsed by one-third of the participants as being characteristic of effective teachers. Ethical was the next most common category, with slightly less than one-third of students subscribing to this characteristic. Approximately one-fourth of the sample identified characteristics pertaining to being enthusiastic about teaching. One-fifth of the preservice teachers cited traits relating to being knowledgeable about subject matter. Finally, professional was the theme that received the lowest endorsements--with only 15% of participants referring to characteristics in this area.

A series of chi-square analyses, using the Bonferroni adjustment to control for Type I error ($p < .05$), indicated no relationship between the seven perception categories of effective teachers and preservice teachers' race, year of study, and preferred grade level for teaching. Similarly, no gender differences were found with respect to student-centered, competent instructor, ethical, enthusiastic about teaching, knowledgeable about subject, and professional. However, statistically significantly more males endorsed teacher characteristics that were associated with being an effective classroom and behavior manager than did females. A series of independent samples *t*-tests, adjusting for Type I error (i.e., Bonferroni adjustment), revealed no statistically significant relationship between students' levels of educational beliefs and each of the seven perception categories.

An exploratory factor analysis was used to determine the number of factors underlying the seven themes. Specifically, a maximum likelihood (ML) factor analysis was used with a varimax rotation. This technique, which gives better estimates than does principal factor analysis (Bickel & Doksum, 1977; Onwuegbuzie & Daniel, in press), is perhaps the most frequently used

method of common factor analysis (Lawley & Maxwell, 1971). The eigenvalue-greater-than-one rule, also known as K1 (Kaiser, 1958), was implemented to ascertain an appropriate number of factors to retain. This technique resulted in a three factors (i.e., meta-themes). The *scree* test (Cattell, 1966; Zwick & Velicer, 1986) also suggested that three factors be retained.

The ML factor analyses revealed a three-factor solution, which explained 55.5% of the total variance. Loadings of items on each factor are presented in Table 2. Using a cutoff correlation of 0.3 (i.e., factor loading criterion) recommended by Lambert and Durand (1975) as an acceptable minimum loading value, the following themes loaded significantly on the first factor: competent instructor, student-centered, and effective classroom and behavior manager; the following themes loaded on the second factor: ethical and professional; and the following themes loaded on the third factor: enthusiastic about teaching and knowledgeable about subject. The first factor can be labeled *instructional and management skills*. The second factor can be termed *ethical and well-tempered behavior*, whereas the third factor can be termed *knowledge and enthusiasm of/for subject and student*. With respect to the third factor, the factor loading pertaining to the enthusiastic about teaching theme was positive, whereas the loading for the knowledgeable about subject theme was negative. This suggests that enthusiastic about teaching and knowledgeable about subject were inversely related. That is, preservice teachers who were the most likely to endorse enthusiasm as a characteristic of effective teaching tended to be the least likely to endorse subject knowledge as an effective trait. The thematic structure is presented in Figure 1. This figure illustrates the hierarchical structure among the themes and meta-themes arising from preservice teachers' perceptions of the characteristics of effective teachers.

An examination of the *trace* (i.e., the proportion of variance explained, or eigenvalue,

after rotation; Hetzel, 1996) revealed that the *instructional and management skills* meta-theme (i.e., Factor 1) explained 22.51% of the total variance; the *ethical and well-tempered behavior* meta-theme (i.e., Factor 2) accounted for 17.93% of the variance; and the *knowledge and enthusiasm of/for subject and student* meta-theme (i.e., Factor 3) explained 15.07% of the variance. These three meta-themes combined explained 55.51% of the total variance. This total proportion of variance represents a very large *latent effect size.* Latent effect sizes represent effect sizes that pertain to non-observable, underlying aspects of the phenomenon being studied (i.e., preservice teachers' perceptions of characteristics of effective teachers) (Onwuegbuzie & Teddlie, 2002). Onwuegbuzie and Teddlie also define manifest effect sizes as effect sizes pertaining to observable content (i.e., preservice teachers' perceptions). The manifest effect sizes associated with the three meta-themes (i.e., proportion of characteristics identified per meta-themes) were as follows: *instructional and management skills* (72.4%), *ethical and well-tempered behavior* (36.6%), and *knowledge and enthusiasm of/for subject and student* (41.0%).

Discussion

The purpose of the present study was to determine preservice teachers' perceptions about the characteristics of effective teachers, as well as to investigate factors that may have influenced their responses. A multi-stage qualitative-quantitative analysis (Onwuegbuzie, 2001) revealed that the perceptions held by preservice teachers represent a multidimensional construct. This multidimensionality is consistent with that found by Witcher et al. (2001). Specifically, in the current investigation, perceptions were identified that led to the following seven themes: student-centered, effective classroom and behavior manager, competent instructor, ethical, enthusiastic about teaching, knowledgeable about subject, and professional.

Student-centered descriptors received the greatest endorsement, with more than one-half of preservice teachers noting one or more characteristics representing this theme. This suggests that the current sample, in general, rated being student-centered as the most common characteristic of effective teachers. This is consistent with Witcher et al. (2001), who found that this theme was endorsed by 79.5% of the sample, which comprised preservice teachers in the state of Arkansas. Thus, preservice teachers, in general, regard the *interpersonal context* as the most important aspect of teaching.

The seven themes, which loaded on three factors, dealt with instructional and management skills, ethical and well-tempered behavior, and knowledge and enthusiasm of/for subject and student. These factors suggest that the perceptions of preservice teachers represent a complex phenomena. The themes that emerged from the preservice teachers' responses are more informative than the AASA's two-element conceptualization of effective teachers, namely, (a) management and instructional techniques and (b) personal characteristics (Demmon-Berger, 1986). The management and instructional techniques dimension of the AASA is similar to the instructional and management skills component that emerged in the present investigation. However, whereas the AASA conceptualize a personal characteristics element, the responses of the present sample suggest that this dimension could be broken down into (a) ethical and well-tempered behavior and (b) knowledge and enthusiasm of/for subject and student.

One finding was the fact that endorsements to the enthusiastic about teaching and knowledgeable about subject themes were inversely related. In other words, preservice teachers who were most likely to endorse enthusiasm as a characteristic of effective teaching were least likely to endorse subject knowledge as an effective trait. This result is consistent with Witcher et

al. (2001). Several characteristics of the present sample could have induced this finding. In particular, it is possible that the difference in preservice teachers' priority between being enthusiastic about teaching and knowledgeable about subject could have reflected the grade level they were intending to teach. On the one hand, it is possible that prospective elementary school teachers are more likely to rate enthusiasm than knowledge as an essential instructional trait because the level of information imparted to elementary students is much lower than that disseminated to students in higher grades. Consequently, it may be perceived by elementary school preservice candidates that subject matter expertise is not as important as is the ability to motivate students to learn by being enthusiastic. On the other hand, it is possible that preservice candidates intending to teach at the middle and/or high school levels are more likely to endorse knowledge over enthusiasm. However, a re-examination of the data did not entirely support this prediction. A greater proportion of elementary, middle, and high school candidates rated enthusiasm more favorably than knowledge. While the difference in proportions was marginal for both elementary school (22.8% vs. 19.3%) and high school (26.1% vs. 23.9%) candidates, twice as many middle school preservice teachers endorsed enthusiasm (23.5%) over knowledge (11.8%). Thus, middle school candidates' differential response to the enthusiasm and knowledge themes may have contributed, albeit in a small way, to the inverse relationship between these two themes. In any case, more research is needed comparing perceptions of preservice teachers as a function of their chosen grade level.

A much clearer picture emerges when responses to these two themes are compared as a function of gender. While males and females were equally as likely to endorse enthusiasm about teaching (odds ratio = 1.12), males were more than two-and-one-half times more likely to

endorse knowledge of subject (odds ratio = 2.59) than were females. Thus, gender likely explains the inverse relationship between responses to the enthusiasm and knowledge themes. This again implicates gender as being important in forming the perceptions of preservice teachers.

That females rated enthusiasm about teaching higher than they rated knowledge of subject matter may reflect the historical lack of gender consideration in the schools. There exists a substantial literature base that documents differential treatment of students based on gender (e.g., Sadker, Sadker, & Klien, 1991; Altermatt, Jovanovic, & Perry, 1998; American Association of University Women, 1992, 1998;), and this base illustrates the imbalance in curricular organization, curricular content, and verbal interaction between teacher and student faced by students as they progress through school. For instance, as early as elementary school, instructional methods reflect male preferences in that the entire curriculum is organized to meet the needs of young male students who typically mature slower than female students (Stevens, Wood, & Sheehan, 2002). An examination of text books from history to music to science reveals only a small percentage of information addressing the contributions, experiences, and challenges of women (Zittleman & Sadker, 2002). Investigations of teacher-student verbal interaction show that teachers call upon males more often than females, allow males more often than females to call out answers, and provide a higher quantity of verbal interaction to male than to female students (Sadker, Sadker, Fox, & Salata, 1993/1994). The cumulative result of the research in this area is that the differential treatment of males and females in the schools is gender specific.

Psychological studies have helped broaden the understanding of female moral and emotional development. Findings (e.g., Gilligan, 1982) reveal that females stress interdependence, connectiveness, and attachment as important concepts compared to values of

independence and separation held in high regard by males, and these values are nurtured in a gender-specific manner from early years, in both society and school. The fact that female respondents in this study rated enthusiasm higher than knowledge may be indicative of their desire to create a more caring schooling environment to replace the “male model that emphasizes rationality, order, detachment, and the pursuit of profit/power above personal and emotional attachment” (Stevens et al., 2002, p. 83). As already documented, candidates enter into teacher preparation with powerful views of teacher roles and general purposes of education that come from a myriad of personal experiences and general beliefs. One of the purposes of a teacher education program is to have candidates confront their beliefs and begin moderating these beliefs based upon research, theory, exemplary practices, and philosophical approaches to education (Schwartz, Slate, & Onwuegbuzie, 1999).

Teacher educators should be aware that some progress has been made over the past 20 years in the fair treatment of gender in teacher education textbooks, but the progress has been minimal. Even in teacher education, sexism persists (Zittleman & Sadker, 2002). Although the tone is supportive for gender issues, text coverage is minimal, and specific strategies for promoting gender fairness and justice are lacking. In this study, it is impossible to know why female respondents rated enthusiasm higher than knowledge; however, this rating, coupled with a growing body of literature, means we must be cognizant of possible gender differences in perceptions.

Similarly, race and culture may have contributed to the relationship between the enthusiasm and knowledge themes. Racial comparisons revealed that an equal proportion of minority and White candidates (odds ratio = 1.17) endorsed enthusiasm. White preservice

teachers were more than two-and-a-half times more likely to endorse knowledge of subject (odds ratio = 2.67) than were their minority counterparts. The fact that minority candidates endorsed enthusiasm for teaching over knowledge of subject to a significantly relatively higher degree (i.e., 2.32 to 1 ratio) than did White candidates highlights the difference between these two populations. First and foremost, minority teachers are more likely to begin their teaching career in large urban school districts where teaching conditions are uniquely difficult, characterized by large proportions of minority students, high student failure rates, and low academic motivation and self-esteem (Gay, 1997; Murname, Singer, Willett, Kemple, & Olsen, 1991). Many teachers in such places develop low teacher morale, which may be transmitted to their students, leading to a downward cycle of underachievement and low ebullience. In such schools, teacher enthusiasm likely is more crucial than in schools typified by high student achievement, more resources, and highly educated parents. Thus, it is likely that minority candidates, many of whom had poor or negative experiences as primary and secondary students (Ford & Grantham, 1997), deem enthusiasm for teaching to be more important than knowledge of subject.

As noted by Ladson-Billings (1994), the academic success and resilience among Black students at risk for educational failure has been attributed to African-American teachers who took an interest in them and exhibited enthusiasm towards teaching them, providing moral support (Ford & Grantham, 1997; Onwuegbuzie, 1999). According to Foster (1990), Black teachers tend to hold a philosophy that attempts to instill values associated with pride, equity, wealth, power, and cultural continuity among Black children. Black teachers accomplish these goals by going beyond the subject matter. Specifically, Black teachers strive to help Black students value achievement, as well as to understand the personal value, the collective power,

and the political ramifications of academic success (Foster, 1990; King, 1993). Enthusiasm for teaching clearly plays a role here.

Findings suggest that Black teachers are more in a position than are White teachers to integrate the realities of the Black students' backgrounds and cultures, while, at the same time, acknowledging, validating, and affirming their identities (Ladson-Billings, 1994). Moreover, in addition to being a teacher and role model, Black teachers routinely assume the roles of surrogate parents, mentors, motivators, counselors, and disciplinarians. Thus, the minority preservice teachers' greater propensity for enthusiasm as a characteristic of effective teaching may be indicative of a proclivity towards an "emancipatory pedagogy," namely, a pedagogy that is culturally affirming and responsive to the needs of minority students (King, 1993). Such a pedagogy requires tremendous enthusiasm for teaching.

Studies have indicated that negative teacher-student relationships decrease teachers' motivation and expectations and, consequently, students' motivation and achievement (Ford & Grantham, 1997). White teachers have been found to hold lower expectations for Black students than for White students (Good & Brophy, 1985), to give preferential treatment to White students, to exhibit less enthusiasm for teaching Black students, and to exert less academic encouragement for Black students (Irvine, 1991). Thus, the extent to which White teachers hold knowledge of subject matter more important than enthusiasm, as was found in the present investigation, suggests that a cultural mismatch or incongruence may take place between minority students and many White teachers (Boykin, 1994; Ogbu, 1990). This, in turn, helps to justify the importance of preparation in multicultural education in teacher education programs. Indeed, at many schools of education with predominantly White students, multicultural education is not emphasized to

the extent that it typically is in Historically Black Colleges and Universities (Darling-Hammond, 1994, 1995). As such, few White preservice teachers receive adequate training in multicultural education and few White teacher candidates are trained to examine their biases and stereotypes regarding Black students, which can culminate in a lack of understanding of or appreciation among White teachers for cultural differences (Darling-Hammond, 1994; Ladson-Billings, 1994).

Furthermore, once admitted to teacher education programs, minority candidates often find little emphasis on multicultural education and, thus, are under-prepared to teach in urban schools (Banks, 1994). In fact, feelings of under-preparedness may lead minority preservice teachers to lose interest in teaching and, consequently, not complete their teaching certification, turning their backs on the profession in favor of other college majors and careers (Ford & Grantham, 1997), thereby exacerbating further the dire shortage of minority teachers and administrators (Onwuegbuzie, 1999). Thus, an implication of the current findings may be that schools and colleges should prepare all teachers to work more effectively with minority students, including helping them to appreciate more the importance of displaying enthusiasm for teaching.

The fact that the minority sample members have a relatively lower regard for knowledge of subject as a characteristic of effective teachers also can be counter-productive. Specifically, the perception that enthusiasm is more important than is subject knowledge may lead minority candidates to not preparing as well for standardized examinations as do their White counterparts. Minority students tend not to perform well on standardized tests, including the National Teachers' Examination (NTE), thereby making licensure impossible (Bianchini, Kimble, Pitcher, Sullivan, & Wright, 1995). Thus, in addition to multicultural education, preservice candidates

should be encouraged and helped to maximize knowledge of their discipline, as well as be prepared for standardized tests such as the NTE.

As accomplished professionals, teacher educators are cognizant that effective teachers do not embody characteristics that represent a dichotomy; in fact, effective teachers possess a complex blend of attributes, including enthusiasm and knowledge of content. With regard to gender and race, the present findings provide evidence that candidates enter teacher preparation programs with different views about what constitutes effective teaching. Due to the many experiences candidates bring into the setting, the views held likely reflect differences rather than biases. Regardless of these initial views, teacher candidates need to learn when and how to balance expressions of enthusiasm and the commitment to seeing that students learn appropriate content at an acceptable level. Therefore, teacher preparation programs should hold themselves responsible for being aware of the entering beliefs of their candidates and helping these candidates develop the knowledge, skills, and dispositions necessary to perform competently in their classrooms (NCATE 2002).

No relationship was found between the seven perception categories of effective teachers and many of the demographic variables. These findings indicate that members of the present sample were relatively homogeneous with respect to their perceptions. These non-significant findings emerged despite the fact that students completed the surveys during the first week of class, that is, before the instructors or course readings could begin to shape the majority of preservice teachers toward a unitary educational belief system. Thus, replications are needed to determine the reliability of these non-significant results.

The fact that males tended to place more weight on being an effective classroom and behavior manager than did females suggests that issues pertaining to classroom discipline may have a gender context. This finding of a gender difference is consistent with Witcher et al. (2001). It is likely that this gender difference stemmed, at least in part, from the fact that a statistically significantly ($\chi^2 = 18.10$, $p < .001$; Cramer's $V = .39$) larger proportion of males (84.0%) were training to be either middle school or high school teachers than were females (43.0%). Onwuegbuzie, Witcher, Filer, Collins, and Downing (in press) and Martin and Baldwin (1996) found that inservice and preservice secondary school teachers were more likely to have an interventionist orientation than were elementary school teachers. Interventionists represent teachers who ascribe to a rules/rewards-punishment viewpoint and who believe that children and adolescents are conditioned by their environment; therefore, the teacher must take control of the environment in order to prevent or to address inappropriate behavior (Wolfgang, 1995; Wolfgang & Glickman, 1986). Further, Onwuegbuzie et al. (in press) noted that elementary school inservice and preservice teachers were more likely to have an interactionalist orientation. Interactionalists represent teachers who take a confronting-contracting point of view and who believe that teachers should continually interact with students who behave inappropriately (Wolfgang, 1995; Wolfgang & Glickman, 1986). Consequently, the extent to which the males in the present investigation were more interventionist than were the female preservice teachers, likely explains their propensity to endorse effective classroom and behavior management as an important characteristic of a teacher.

In fact, as noted by Onwuegbuzie et al. (in press), disciplinary problems that occur in the middle and secondary school setting typically are more complex and severe than those at the elementary level. Thus, it is likely that secondary school teachers believe they should maintain

the maximum amount of power over their students in order to secure control over the learning environment. Future research should investigate this gender bias found in the current inquiry. In any case, teacher-educators should be cognizant of possible gender differences when exposing their students to different discipline styles.

Gender differences likely are reflected in the notion that female teachers reprimand by showing supportive behavior through both their physical and verbal interactions with students by moving closer to the student when correcting her and using supportive language (Stevens et al., 2002). This is in contrast to the notion that male teachers are direct and somewhat aloof in their behavior management styles Teacher educators may want to spend time on discipline approaches and help their candidates analyze approaches in terms of both gender differences and classroom settings. It is only through analyzing and evaluating different orientations to behavior management that teacher educators can expect candidates to acknowledge and, perhaps, abandon biases that may interfere with effective discipline practice.

Another finding of this study showed that the educational beliefs of only a minority (i.e., 12.7%) of preservice teachers were classified as progressive. Progressive teachers are referred to as being *modern* or *experiential*. According to Witcher and Travers (1999), this group of educators tends to view school as a social institution and seeks to align school programming with contemporary needs in order to make education meaningful and relevant to the knowledge, abilities, and interests of their students. That is, these individuals tend to base curricula upon their students' personal, familial, and social experiences with a goal of providing a continuous link between students' school-based learning and their lives outside the school context. As such, progressive teachers tend to view themselves as facilitators, guides, or motivators. Moreover, these teachers tend to present curricula holistically and in an open-ended manner in order to help

students develop problem-solving skills. Using more student-centered teaching techniques, students of progressive educators tend to engage in active learning, both independently and cooperatively, which focuses on solving learner-generated problems. Examples of progressive philosophies, theories, and tenets include constructivism, experimentalism, and naturalism**.**

On the other hand, slightly more than one-fourth (28.4%) of the sample could be considered as having transmissive beliefs. Transmissive educators are often referred to as being *traditional* or *conservative* (Witcher & Travers, 1999). This group of professionals views the needs of the community and student as essentially stable. As such, they are reluctant to revise, to modify, or to redesign the schooling process in any dramatic way. Transmissive teachers believe that the purpose of school is to develop the intellect. Thus, they view their role as one of dispensing important knowledge to students, and they prefer lecture, demonstration, and recitation as teaching methods. Teachers representing this paradigm tend to advocate curricula that are subject-centered, organized and sequenced, and focused on mastery of specific skills and content. Consequently, their classrooms tend to have a business-like atmosphere where students are passive learners who generally work independently. As noted by Witcher and Travers (1999), examples of transmissive philosophies, theories, and tenets include idealism, realism, perennialism, and essentialism.

A very high percentage of preservice teachers (59.0%) appeared to have eclectic educational beliefs. It is likely that this large number of eclectics attenuated the relationship between educational beliefs and their perceptions of the characteristics of effective teachers. It is also possible that, as preservice teachers become more aware of various teaching philosophies through their educational classes and their field experiences, many of these eclectics will lean more toward either a progressive or transmissive tendency. In fact, according to Witchers and

Travers (1999), educators possessing an eclectic philosophical orientation sometimes are referred to as persons holding a "central" or "moderate" position on educational views. Apparently, this position is valid only if educators holding such a position first seriously consider transmissive and progressive educational viewpoints about the purposes of education and ideal types of curricula to implement these purposes. In other words, an individual must understand well both transmissive and progressive positions before an eclectic educational position is genuine; otherwise, this view indicates that a future teacher or practitioner has not thought through the ends and means of schooling (Witchers & Travers, 1999). This suggests that once a preservice teacher begins to reflect more about her/his future teaching, a dominant educational belief system typically should emerge that reflects consistency of belief about the purpose and process of schooling.

The larger number scoring in the eclectic range suggests that the majority of the sample members may have not yet been exposed adequately to the various educational approaches taught at the institution where the study took place. Thus, they have not yet adopted either a ransmissive or progressive orientation. Further, the small percentage of respondent scores falling within the progressive range and larger percentage falling within the transmissive range might reflect the background of the sample. Participants were from a university in southern Georgia. A significant proportion of individuals representing this geographic area likely are conservative in their social views. As such, the study participants may well have received a transmissive education in their own K-12 experience and are reflecting that philosophy. It is possible that other explanations exist for the relatively small number of progressive sample members; however, it is beyond the scope of this investigation to identify these reasons. Consequently, this should be a subject of future inquiries.

Future research also should investigate how stable preservice teachers' perceptions and educational beliefs are over time. Currently, the authors plan to track the attitudes and beliefs of the members of the present sample throughout their preservice training, with the next measurement of attitudes taking place after they have completed their introductory-level education course. Such information should help to assess the impact that teacher education institutions have on educational beliefs and perceptions, which, in turn, should facilitate assessment of the extent to which these education programs are meeting the INTASC (1992) standards of developing teachers as reflective practitioners.

In summary, findings from the present study and that of Witcher et al. (2001) yield several implications. First and foremost, the result that teacher candidates express perceptions of characteristics of effective teachers that fall into as many as six (i.e., Witcher et al., 2001) or seven (i.e., current findings) categories highlights the diversity in beliefs that exists among this population. However, because candidates were not asked to discuss their beliefs, the extent of this diversity was not determined. Even so, the current investigation and its predecessor demonstrate the importance for preservice teachers to examine their educational beliefs and perceptions. In fact, the ability to reflect upon entering beliefs and to change ill-founded beliefs is consistent with the recommendations of the Interstate New Teacher Assessment and Support Consortium (INTASC, 1992) and the National Council for the Accreditation of Teacher Education (NCATE, 2002).

By demonstrating that teacher candidates' beliefs may have a gender and cultural context, findings from this study suggest that teacher educators should develop and use activities that deal specifically with gender issues and multicultural education. Such activities include encouraging preservice teachers to identify their beliefs, as was undertaken in this study, and to link these

beliefs to curricula and pedagogy in their respective disciplines while considering gender and cultural issues. Further, students could be asked to align their thoughts, opinions, and convictions with the INTASC principles in an attempt to ascertain areas of consistency, as well as gaps in their belief systems. With respect to the latter, the findings of both Witcher et al. (2001) and the present inquiry suggest that preservice teachers do not consider several of the standards that have been recognized by INTASC (1992). For instance, no teacher candidate mentioned that an effective teacher should use a variety of instructional techniques to foster students' development of critical thinking, problem solving, and performance skills (Principle 4). Similarly, no preservice teacher identified the importance of using media communication strategies to promote active inquiry, collaboration, and supportive interaction in the classroom (Principle 6). Also, no preservice teacher deemed important the understanding and use of formal and informal assessment strategies to evaluate the continuous intellectual, social, and physical development of the learner (Principle 8). By asking teacher candidates to reflect upon their beliefs in the context of the NCATE and INTASC standards, they are more likely to realize the knowledge, skills, dispositions, and performances that are considered essential for all teachers, regardless of their specialty areas.

As early as possible in their programs, teacher candidates could be asked to explore their own dispositions through expository writings that outline why they want to be teachers. Both they and those responsible for their professional development could then compare these reasons to their educational beliefs and their perceptions of characteristics of effective teachers. Moreover, candidates should be expected continually to reflect upon and compare their belief systems as they progress through their teacher education program. Teacher educators also should monitor the evolution of these beliefs in an attempt to determine the extent to which they are

becoming more aligned with the INTASC and NCATE standards, as well as other pedagogical and curricular tenets and frameworks. To facilitate such monitoring, candidates could be asked to maintain a detailed record of their knowledge, skills, dispositions, and performances via such techniques as traditional and electronic portfolios.

Case studies and readings also can play a useful role in maximizing preservice teachers' awareness of the characteristics of effective teachers. As suggested by the present findings, case studies could be selected that provide candidates with the opportunity to examine the importance of gender and culture in the teaching and learning process. Also, while undertaking their field experiences, teacher candidates should be encouraged to observe and examine the gender and cultural milieux.

The findings from the present study also have implications for future research. A significant proportion of teacher candidates identify enthusiasm as an important characteristic of effective teachers. The extent to which this characteristic is endorsed represents a function of both gender and race/culture; however, it is not clear what students actually mean by the term *enthusiasm*. This could be the subject of future investigations. Also of interest is how teacher candidates' beliefs translate to teaching practices in the classroom during their field experiences, Finally, future studies might investigate how candidate beliefs change or modify as a result of field experiences and knowledge gained in the teacher preparation program.

The authors are currently designing an instrument that is based on the seven themes that emerged from this study. This instrument, entitled, *Beliefs About Characteristics of Effective Teachers Scale* (BACETS), will contain 5-point Likert-format items that assess the extent to which each preservice candidate endorses each of the seven categories of characteristics found in the present research. It is hoped that such a scale will help to determine the extent to which

candidate beliefs predict a myriad of future outcomes, such as whether a preservice teacher becomes licensed, the type of school a teacher candidate ends up teaching in, whether a teacher becomes an administrator, and whether and how much time elapses before a teacher leaves the profession for another career.

Finally, Principle 9 of the INTASC Standards states that teachers should be reflective practitioners who continually assess the impact of their choices and actions on others (e.g., students, parents/guardians, colleagues, and members of the community) and who actively identify and seek out opportunities to grow as professionals. It is only by finding ways to maximize preservice candidates' capacity to reflect that this principle can be fully realized. The present study represents a step in this direction.

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Footnotes

There were no footnotes in this manuscript, but if there were they would be presented on this page.

Table 1

Themes Emerging from Preservice Teachers' Perceptions of Characteristics of Effective Teachers

Theme	Endorsement Rate (%)
Student-centered	55.2
Effective classroom and behaviour management	33.6
Competent instructor	33.6
Ethical	29.9
Enthusiastic about teaching	23.9
Knowledgeable about subject	19.4
Professional	15.7

Table 2

Summary of Themes and Structure Coefficients from Maximum Likelihood Varimax Factor Analysis: Three-Factor Solution

	Factor			
Theme	1	2	3	C[1]
Competent instructor	.75			0.58
Student-centered	.59			0.40
Effective classroom and behavior management	.56			0.40
Ethical		.84		0.72
Professional		.71		0.56
Enthusiastic about teaching			.78	0.67
Knowledgeable about subject			.68	0.55
Trace	1.44	1.28	1.17	3.88
% of variance explained	22.51	17.93	15.07	55.51

Only coefficients with large effect sizes are displayed, using a cut-off of .3 recommended by Lambert and Durand (1975).

[1]C = Communality Coefficient

Figure Caption

Figure 1. Thematic structure pertaining to preservice teachers= perceptions of the characteristics of effective teachers.