

Personality Traits and Beliefs About Diversity in Pre-service Teachers

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ABSTRACT - Classroom teachers in America's public schools face a rapid increase in ethnic and socio-cultural diversity among their students. Research shows that teachers' attitudes toward diversity have measurable impact on educational effectiveness. Thus, teacher education programs stress multi-cultural sensitivity and teaching methodology, and accreditation agencies insist on measurable outcomes in this regard. One relatively neglected issue concerns individual differences among teachers. It is reasonable to assume that teacher candidates may differ in basic dispositions that relate to diversity attitudes, and that these differences may predict differential levels of effectiveness of diversity education curricula. The Five Factor Model of personality (FFM) provides a widely accepted framework of human individual differences. In the present study, we correlated all traits of the FFM with a scale measuring beliefs about diversity in a sample of teacher education students. Significant correlations were found between diversity beliefs and Openness facets of Artistic Interests, Emotionality, and Liberalism, as well as the Agreeableness facet of Sympathy. These results have implications for diversity training in teacher education programs and for evaluation studies of such programs. Results may also relate to questions of job fit for public school teachers.

In an increasingly pluralistic society, public school teachers face daunting challenges with regard to the range of individual differences among children in their classrooms. Effective teachers certainly must have materials and methods appropriate for multicultural education, but their own attitudes and beliefs about diversity and educational equity are also important. Even the best multicultural teaching materials are ineffective when the teacher lacks openness about diversity (Banks & Banks, 1993).

Thus, colleges of education are to an increasing degree making efforts to assess attitudes toward, and beliefs about, diversity in their teacher education candidates and to implement in the curriculum courses, methods, and activities that are designed to induce positive changes in these variables. (Dee & Henkin, 2002; Garmon, 2004; Villegas & Lucas, 2002).

Despite energetic efforts to address multicultural issues in training programs, beginning teachers often report that the coursework that they received did not help them in dealing with diversity in their classrooms (National Comprehensive Center, 2008). What many training programs fail to fully consider is that initial differences among pre-service teachers in beliefs about diversity may reflect core individual differences in basic

dispositions, and that efforts to impact attitudes toward diversity are likely to be more effective in some individuals than in others. In addition, efforts to evaluate the effectiveness of curricular programs designed to instill more positive diversity attitudes in students may significantly underestimate the impact of such programs if individual differences among the teacher candidates are ignored in the research design.

While the importance of considering individual dispositions seems clear as a general concept, a major problem historically is deciding which specific dispositions or traits are relevant for professional education candidates. The list of desirable basic dispositions in teacher education students is usually developed by a committee using common sense and social desirability, resulting in models that often resemble the Boy Scout pledge (i.e., loyal, thoughtful, friendly, courteous, kind, etc.). Fortunately, the study of individual differences has been greatly advanced in recent years by the clear emergence of the Five Factor Model of personality (John, 1990; McCrae & Costa, 1996). This now widely accepted model provides what is essentially the “periodic table of elements” for human personality traits.

Briefly, the FFM posits five primary overarching dimensions of human personality, each of which represents a normally distributed bipolar trait. The “Big Five” are most commonly represented as letters: E (Extraversion), A (Agreeableness), C (Conscientiousness), N (Neuroticism), and O (Openness to Experience). Gosling and John (1999) suggest that these traditional short labels fail to adequately capture the dimensions and are easily misunderstood, so they have suggested additional terms that help to conceptually expand each domain. For E, they suggest Extraversion, Energy, and Enthusiasm. For A, Agreeableness, Altruism, and Affection. For C, Conscientiousness, Control, and Constraint. For N, Neuroticism, Nervousness, Negative Affectivity. For O, Openness, Originality, and Open-mindedness. High E individuals are sociable, active, and talkative, whereas low E people are introverted, reserved, and quiet. High A people are trusting, soft-hearted, and nurturing, while low A people are rude, suspicious, and irritable. High C people are organized, self-disciplined, and rule-compliant, while low C people are unreliable, careless, and lax. High N people are worrying, anxious, and depressed, while low N’s are unemotional, stable, and relaxed. High O people are curious, creative, and original, while low O’s are conventional, narrow-minded, and unanalytical. Costa and McCrae (1995) have expanded the FFM by proposing six narrower traits, or facets, underlying each of the five broad domains. The E domain includes the facets of Warmth (Friendliness), Gregariousness, Assertiveness, Activity Level, Excitement Seeking, and Positive Emotions (Cheerfulness). The A domain includes facets of Trust, Straightforwardness (Morality), Altruism, Compliance (Cooperation), Modesty, and Tender-mindedness (Sympathy). The C domain includes facets of Competence (Self-efficacy), Orderliness, Dutifulness, Achievement-striving, Self-discipline, and Deliberation (Cautiousness). The N domain includes Anxiety, Anger, Depression, Self-consciousness, Impulsiveness (Immoderation), and Vulnerability. Finally, the O domain includes Fantasy (Imagination), Aesthetics (Artistic Interests), Feelings (Emotionality), Actions (Adventurousness), Ideas (Intellect), and Values (Liberalism).

The emergence of the FFM has provided a major new paradigm for the study of individual differences. The five primary dimensions are described as enduring

dispositions that are relatively stable across the age span as well as situations, present across all cultures, and, to varying degrees, heritable (Costa & McCrae, 1992). Indeed, McCrae et al. (2000) argue that these traits are endogenous, biologically-based characteristics that develop independently of environmental influences.

A growing body of research deals with basic personality traits (FFM) as predictors of job performance (see, for example, Judge, Higgins, Thoresen, & Barrick, 1999). While the present study does not assess job performance *per se*, the literature does suggest that a teacher's attitudes and beliefs about diversity will impact instructional effectiveness in a multicultural classroom. Further, it is hypothesized that a teacher's beliefs about diversity reflect, in part, their basic dispositional traits (which may then be influenced by a culturally sensitive curriculum). The specific purpose of the present study, then, is to explore the relationships between basic personality traits, using the FFM, and beliefs about diversity in a sample of pre-service teachers.

Method

Participants

Data were provided by 53 undergraduate students applying for admission to the professional education program at a mid-sized state comprehensive university in the rural southeast. There were 38 females and 15 males, ranging in age from 18 to 37 (mean age = 20.94, $SD = 3.7$). This sample reported the following ethnicities: 90% Anglo American, 2% African American, 2% Asian American, 4% Hispanic American, and 2% Other. These students were enrolled in the first course of the professional education sequence, Educational Foundations, and they were engaged in the steps required to gain formal admission to teacher education. Among other requirements, applicants completed the two questionnaires described in the following section.

Materials

M5-336 Personality Questionnaire. The M5-336 (McCord, 2002) is a self-report measure of normal personality traits based on the Five Factor Model of personality (Costa & McCrae, 1995). Briefly, the items on this test are drawn from Goldberg's IPIP project (1999) and provide a "proxy" of the NEO-PI-R (Costa & McCrae, 1992). The IPIP website provides data on the internal reliability of the 35 scales (5 broad domains, 6 narrower facets under each), with Cronbach's alphas as high or slightly higher than the corresponding scales of the NEO-PI-R. Facet scales are based on 10 items, and all 60 items within a given domain comprise the overall domain score. Correlations between the M5-336 (IPIP) scales and the NEO-PI-R scales are also high, providing indirect evidence of validity. A growing body of literature supports the validity of the IPIP proxy scales themselves (see, for example, Goldberg, 1999; Goldberg et al., 2006; Hambrick & McCord, in press; Proctor & McCord, 2009; Proctor & McCord, in press).

Professional Beliefs About Diversity Scale (PBADS). Pohlan and Aguilar (1999) presented a set of two scales designed to measure attitudes toward and beliefs about diversity, specifically in the context of teacher education. One scale focuses on personal beliefs, and the second focuses on professional beliefs about diversity. This second scale is the one used in the teacher candidate screening process and thus in the current study. This 25-item scale is the product of a multi-step development process spanning several

years. Sample items include: “Students living in racially isolated neighborhoods can benefit socially from participating in racially integrated classrooms”; “All students should be expected to become fluent in a second language”; “Lack of resources in the home negatively effects the academic performance of students from lower socioeconomic classes”; “Only schools serving students of color need a racially, ethnically, and culturally diverse staff and faculty.” Cronbach’s alphas from pre- and post-testing on two different samples include values ranging from .761 to .783, similar to the previous versions of this scale across many different samples. The authors report numerous validity studies with multiple samples from California, Florida, Nebraska, and Utah. Items were shown to have good face validity as rated by a panel of experts. With regard to predictive validity, field testing showed a significant relationship between the PBADS and extent of multicultural knowledge in pre-service teachers. Social desirability was not related to scores. A negative correlation was found between Professional Beliefs About Diversity and scores on the Rokeach Dogmatism Scale (1973). Thus, this instrument appears to exhibit adequate reliability and validity.

Procedures

New processes for implementing the admission requirements to teacher education were pilot tested in the spring semester of 2009. Approximately 65 students participated in some phase of this process, and 53 of these students completed both the M5-336 and the Professional Beliefs About Diversity Scale. Data were entered by students through an online process, into the Taskstream database. Data were exported to Access, where scale scores were computed. Processed data were then exported to Excel, stripped of specific identification, and provided to researchers. The single total score for the Professional Beliefs About Diversity Scale was correlated with all 5 broad domain scales of the M5-336, as well as with the 6 facets scales underlying each domain.

Results

Correlational results are presented in Table 1. As can be seen, the PBADS correlated positively with the Openness to Experience broad domain ($r = .39, p = .004$) but not with any of the other domains. On the facet level, significant positive correlations were found with O2-Aesthetics/Artistic Interests ($r = .29, p = .034$), O3-Feelings/Emotionality ($r = .34, p = .011$), O6-Values/Liberalism ($r = .47, p = .000$), and A6-Tender-mindedness/Sympathy ($r = .39, p = .004$). Table 1 also includes means and standard deviations for each scale. It is noted Cronbach’s alpha for the PBADS was .74, very consistent with other reports regarding this scale.

Discussion

Results of this study reveal a pattern of statistically significant and conceptually meaningful relationships between beliefs about diversity and core personality traits of general open-mindedness, liberalism, sensitivity, and sympathy. The strong correlation between the PBADS and the Openness broad domain provides convergent validation for the PBADS, and convergent as well as discriminant validation for the M5-336.

Pre-service teachers who are dispositionally more open-minded, socio-politically liberal, and more sympathetic toward other people exhibit more positive beliefs about

Table 1
Means, SD's, and Correlations With PBADS for All Scales

Scale	Mean rating (1 to 5 Scale)	SD	Correlation with PBADS
Extraversion	3.79	0.42	-.03
E1 Friendliness	4.23	0.56	-.09
E2 Gregariousness	3.71	0.70	.01
E3 Assertiveness	3.75	0.63	-.05
E4 Activity Level	3.35	0.46	.12
E5 Excitement-seeking	3.43	0.60	-.06
E6 Cheerfulness	4.28	0.48	-.05
Agreeableness	3.89	0.34	.22
A1 Trust	3.80	0.57	.15
A2 Morality	4.19	0.44	.19
A3 Altruism	4.40	0.42	.14
A4 Cooperation	3.89	0.57	.04
A5 Modesty	3.30	0.44	.00
A6 Sympathy	3.78	0.52	** .39
Conscientiousness	3.88	0.48	-.05
C1 Self-efficacy	4.13	0.52	-.11
C2 Orderliness	3.72	0.59	-.12
C3 Dutifulness	4.38	0.40	.02
C4 Achievement-striving	4.12	0.56	-.06
C5 Self-discipline	3.71	0.80	-.02
C6 Cautiousness	3.23	0.62	.03
Neuroticism	2.47	0.60	.09
N1 Anxiety	2.78	0.68	.10
N2 Anger	2.27	0.79	.08
N3 Depression	1.99	0.73	.14
N4 Self-consciousness	2.54	0.70	.02
N5 Immoderation	2.82	0.62	.09
N6 Vulnerability	2.40	0.72	.04
Openness	3.59	0.40	** .39
O1 Imagination	3.66	0.52	.22
O2 Artistic Interests	4.28	0.57	* .29
O3 Emotionality	3.64	0.56	* .35
O4 Adventurousness	3.67	0.60	.16
O5 Intellect	3.75	0.71	.15
O6 Liberalism	2.56	0.59	** .47
PBADS (Total Raw Score)	91.28	9.25	-----

Note. **bold *** = $p < .05$; **bold **** = $p < .01$

diversity in the school setting.

Certainly the major limitation of this study is the relatively small sample of 53 pre-service teachers. These findings should be replicated with larger samples and with different measurement instruments. Despite this limitation, several implications may be derived from these findings. First, program evaluation methodology should certainly incorporate at least these key personality traits as covariates. Otherwise, these systematic variations among individuals would be treated as error variance, and actual pre- post-differences in diversity attitudes may be obscured. Failing to account for systematic variation among subjects increases the chances of a Type II error.

More generally, this study raises the issue of individual “fit” with the career path of public school teaching. It may be that individuals who are innately lower in Openness traits will not respond as well to diversity education efforts and may be ultimately less effective as teachers in a modern, pluralistic society. Screening for relevant dispositions, linked with appropriate career counseling, may save students from the often significant time, effort, and costs involved in preparation for a career that is ultimately a poor fit.

One major question for future research has to do with the malleability of diversity beliefs and attitudes. The present data, framed in the context of the five factors as basic endogenous tendencies, suggests that pre-service teachers who have lower levels of Openness may not benefit from diversity-related educational efforts as much as candidates higher on O. Future studies should focus on pre- and post- measures of diversity attitudes, as a function of explicit diversity curriculum and experiences, but with the O factor explicitly included in the research design.

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