Teaching Versus Non–Teaching Majors: How Closely Linked Are Personality Factors and Teaching Designation?

The purpose of this study was to examine how 3 aspects of personality (self-esteem, agreeableness, and self-concept clarity) relate to female students’ designation of a teaching versus non–teaching major. Students completed measures of self-esteem, agreeableness, and self-concept clarity, along with a demographic questionnaire. Female education majors (n = 54) had higher self-esteem and agreeableness than female non–education majors (n = 77). Self-concept clarity tended to be higher in education majors than non–education majors, although this difference was not statistically significant. These findings are encouraging because they imply that education majors have valuable and important qualities, such as self-esteem and agreeableness. These results support previous research that has found college major and career choice often overlap with personality. Recommendations for future research and implications for counselors in academic and career settings are discussed.

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Recently, the educational system in the United States has come under fire (Hurn, 1993). Many critics doubt that students are reaching their educational potential as they progress through the school system. They contend that students are able to pass high school without basic knowledge and that our school system is critically in need of evaluation. Critics of the educational outcomes of students have at times focused their blame toward the teachers (Hurn, 1993). Is this position justified, or are teachers shouldering too much of the criticism for what is not under their control? This study takes a closer look at those students who have chosen to become educators. Are they well-suited to be teachers? Specifically, the relation between three personality variables and the designation of teaching versus non–teaching major was examined in college students.

It seems elementary that personality has an impact on the college major and career one chooses. However, the jury is still out on the magnitude of this impact. Certain studies suggest that personality is instrumental in predicting career choice and success (Holland, 1966). Conversely, other studies support the idea that people with diverse personalities are just as likely to choose a certain profession and excel (Hogan, Hogan, & Roberts, 1996; Hough & Schneider, 1996; Lancaster, Colarelli, King, & Beehr, 1994). Previous research regarding personality and choice of career by industrial–organizational (I/O) psychologists, centers on Holland’s six congruence–achievement personality types (Holland, 1966, 1985), whereas research by personality psychologists centers on the Big Five model of personality (McCrae & Costa, 1985).

Holland’s six categories, created to relate to occupational choice, include realistic, investigative, artistic, social, enterprising, and conventional (Holland, 1966). The realistic type is associated with a preference for dealing with objects, tools, and machines, whereas the investigative type is associated with preference for examination of physical, biological, and cultural phenomenon. Persons who are artistic prefer to use materials to create art forms, whereas per...
sons who are social enjoy informing and training others. Enterprising and conventional types prefer to work with others for organizational and economic gain and to work with explicit, systematic, and ordered data, respectively (Holland, 1985).

Holland (1985) theorizes that a certain category is associated with a group of careers. If a person chooses a career that is congruent with his or her personality type, this choice will increase job achievement, stability, and satisfaction. For example, investigative people are well suited for careers as biologists and physicists, whereas social personalities are congruent with careers in teaching or social work (Holland, 1985). Although Holland stresses the importance of congruence as a determinant of worker satisfaction and performance, research findings have not universally supported his theory (e.g., Camp & Chartrand, 1992; Heesacker, Elliott, & Howe, 1988; Salomone & Sheehan, 1985).

A smaller body of research focusing on personality factors and occupational choice centers on the Big Five model of personality (McCrae & Costa, 1985) with its factors of openness, neuroticism, conscientiousness, agreeableness, and extraversion. The Big Five model is useful in identifying an individual’s strengths, such as leadership abilities and social poise (McCrae & Costa, 1985). In general, research has supported the Big Five’s ability to predict career success (Goodstein & Lanyon, 1999; Judge, Higgins, Thoresen, & Barrick, 1999).

It is especially important to explore the relation between personality and choice of major or occupation in women. Most studies on personality and career or major choice have used men as participants, presumably because men have been the traditional breadwinners in our society and, until recently, were more likely to seek higher education than women. Personality and career choice may be less overlapping in women than men (Gottfredson & Holland, 1975; Raphael & Gorman, 1986; Wolfe & Betz, 1981), because women historically have been more limited in career choice. Holland (1985) admitted that his theory may not apply to all women because women have not had sufficient opportunities to develop their interests and abilities in all areas.

Some researchers argue that Holland’s theory may only apply to certain women, particularly those who are nontraditional (Raphael & Gorman, 1986; Wolfe & Betz, 1981). This theory may be less applicable to traditional women because these women are less likely to pursue career goals. Other results have disputed these findings (Betz, Heesacker, & Shuttleworth, 1990). Miller and colleagues compared the personalities of female college students enrolled in four majors using Holland’s theory (Miller, Heck, & Prior, 1988). Their findings demonstrated a modest relation between major and personality. Students majoring in social work tended to be social, whereas business majors were more enterprising. In addition, students majoring in music and math were more artistic and investigative, respectively.

Although research comparing personality traits of educators or potential educators to the general population is scarce, many sources emphasize the personality traits that are desirable in a teacher. Literature stresses the need for teachers to have high self-esteem because this trait promotes better teacher-student relations and the development of self-esteem in students (Maples, 1992; McCarty, 1993). The field of education also requires teachers to be adaptable, flexible, and agreeable in order to meet the needs of students, parents, administrators, and fellow teachers and work in a constantly changing environment (Nelson, 1998). An educator must have somewhat of a “people pleaser” personality in order to satisfy a diverse group of people (Hurn, 1993).

No studies have considered the newer concept of self-concept clarity in relation to teachers or teaching majors. Self-concept clarity refers to the extent to which one’s self-beliefs are internally consistent, stable, and defined confidently and clearly (Campbell et al., 1996). Effective teachers need a high level of self-concept clarity and, therefore, a clear sense of who they are in order to lead a class successfully and confidently. Because educators must have the self-concept clarity to want to dedicate themselves to a field in which they may not always receive adequate compensation and recognition, this attribute may be even more important. Those persons concerned with education would hope students who are majoring in education would possess the qualities of self-esteem, agreeableness, and self-concept clarity in order to meet the demands of the profession.

We hypothesized that education majors would show higher self-esteem, agreeableness, and self-concept clarity than non-education majors. These hypotheses were tested at the University of Northern Iowa (UNI), a historical teachers college with a large percentage of education majors and a strong teaching program.

Method

Participants

Participants were female Introduction to Psychology students (n = 156) who received course credit for their involvement with the study. The mean age of the sample was 18.5 years, with a range of 18 to 26. Most students were classified as college freshmen (83%). The overwhelming majority of participants classified
themselves as White/Caucasian (99%), and virtually all (99%) reported they had been raised in the Midwest.

We coded majors as either education ($n = 54$), non-education ($n = 77$), or undecided ($n = 25$) and dropped undecided participants from further analysis. Education majors included such specialties as elementary education ($n = 42$), early childhood education ($n = 3$), special education ($n = 3$), and secondary education ($n = 6$).

**Procedure**

Participants, in groups of 16 to 22, read and signed an informed consent form before participating in the study, then they completed demographic, self-esteem, agreeableness, and self-concept clarity measures. We debriefed and thanked the participants for their involvement following the study.

**Measures**

**Demographics.** Participants completed a demographic questionnaire with items on age, ethnic background, high school grade point average (GPA), college GPA, ACT score, college grade classification (e.g., freshman, sophomore), and college major.

**Self-esteem.** The 10-item version of the Rosenberg Self-Esteem Inventory (1965) measured global, personal feelings of self-worth. Participants rated the items by circling either SD (strongly disagree), D (disagree), A (agree), or SA (strongly agree). The following are some sample items from the scale: “I feel that I have a number of good qualities” and “I am able to do things as well as most other people.” Higher scores indicate higher self-esteem. This well-known and often-used measure has high internal consistency and has been validated across many studies (Blascovich & Tomaka, 1991). The coefficient alpha was .76.

**Agreeableness.** The agreeableness subscale of the NEO-FFI personality scale (Costa & McCrae, 1992) measured agreeableness. Participants circled SD (strongly disagree), D (disagree), N (neutral), A (agree), or SA (strongly agree) on this 12-item scale. Sample items include “I try to be courteous to everyone I meet” and “I generally try to be thoughtful and considerate.” Higher scores indicate higher agreeableness. This scale has convergent and discriminant validity and measures a stable trait (Hendriks, Hofstee, & de Raad, 1999). The coefficient alpha on this measure was .70.

**Self-concept clarity.** Self-concept clarity refers to the extent to which one’s self-beliefs are consistent, stable, and clearly defined (Campbell et al., 1996). Campbell and colleagues’ (1996) 12-item Likert scale, with choices ranging from 1 (strongly disagree) to 5 (strongly agree), measured this concept. Examples of items are “Sometimes I think I know other people better than I know myself” (reverse scored) and “In general, I have a clear sense of who I am and what I am.” Higher scores indicate higher self-concept clarity. The authors of the scale have shown a test–retest reliability of .79 over a 4-month period and an internal reliability of .86 (Campbell et al., 1996). The coefficient alpha in the current study was .81.

**Plan of Analysis**

We grouped female students majoring in elementary education, early childhood education, special education, and all types of secondary education (e.g., social science, English, biology) for comparison with non–education majors using independent-samples t tests. Dependent variables included self-esteem, agreeableness, self-concept clarity, high school GPA, college GPA, ACT score, age, and classification (e.g., freshman, sophomore). Cohen’s d (1988) ascertained effect sizes; Cohen suggests that an effect size of .20–.49 is considered a small effect, .50–.79 a medium effect, and .80 and above a large effect.

We set our significance level for each of the hypothesized variables (self-esteem, agreeableness, self-concept clarity) at .05. Because we also tested several variables that were not included in our hypotheses such as demographic data, we set our overall significance level for these t tests at .05. Using a Bonferroni’s procedure, this decision level resulted in independent significance levels of .01.

**Results**

We hypothesized that teaching majors would be higher in self-esteem, agreeableness, and self-concept clarity than non–teaching majors. In general, the results supported these hypotheses. Education majors had higher self-esteem than non–education majors, $t(129) = 2.10$, $p < .05$, and self-concept clarity, $t(129) = 2.42$, $p < .02$, and education majors had higher self-concept clarity than non–teaching majors, $t(129) = 2.42$, $p < .02$, and $d = .43$ (Table 1). Finally, those students with a teaching designation tended to have higher self-concept clarity than non–teaching majors, although this difference was not statistically significant at the .05 level, $t(129) = 1.67$, $p < .10$, and self-concept clarity, $r(129) = .35$, $p < .01$, and self-concept clarity, $r(129) = .66$, $p < .01$, and agreeableness and self-concept clarity were correlated, $r(129) = .29$, $p < .05$.

It should be noted that all personality factors (self-esteem, agreeableness, and self-concept clarity) showed strong positive relations with each other. Self-esteem was correlated with agreeableness, $r(129) = .35$, $p < .01$, and self-concept clarity, $r(129) = .66$, $p < .01$, and agreeableness and self-concept clarity were correlated, $r(129) = .29$, $p < .01$.

Education and non–education majors had similar high school GPAs, $t(126) = 53$, $p = .59$, and college GPAs, $t(81) = 1.13$, $p = .26$. (Some participants did not indicate a college GPA because they were in their
first semester of college). Differences in ACT scores between education and non–education majors were not significant at the .05 level, $t(126) = 1.70, p = .11$. Education majors were likely to be slightly younger than non–education majors, though this difference was not significant at the .05 level, $t(129) = 1.99, p = .10$. Several outliers on age strongly affected this analysis. When the analysis was run excluding the three participants over the age of 23, teaching designation and age were not as closely linked, $t(124) = 1.49, p = .21$. Education majors were likely to be at a slightly lower college grade level than non–education majors, $t(129) = 2.90, p = .11$; however, the most common classification for both groups was freshman, and only 5% ($n = 8$) of the participants were upperclassmen.

**Discussion**

Education majors had higher self-esteem and agreeableness than non–education majors. In addition, education majors tended to have higher self-concept clarity than non–education majors, though this difference was not statistically significant. These results suggest that there are a few personality traits that may be more prominent in education majors than in students with other majors, at least among women. These results are good news for parents with children in the school system and for persons who value education in society. Though teaching may not be a high-status or well-paid position, there are few, if any, jobs in society that carry as much obligation and potential to influence the future (Hurn, 1993). It is certainly a comforting finding that persons with high levels of self-esteem, agreeableness, and self-concept clarity may be drawn to be educators.

It is possible that being an education major causes a change in a person’s personality, but we do not think this is likely because a vast majority of the students in this study were freshmen or sophomores. Most students had not begun to take classes in the education department and were still completing their general education requirements at the time of the study. There is also a need to follow those students who are prospective education majors as freshmen and sophomores to see if they actually graduate with teaching degrees and pursue careers in education.

It is important to point out the positive relation between the three personality variables of self-esteem, agreeableness, and self-concept clarity. It may be that part of the reason they show a relation to the designation of a teaching major is because of their correlations with each other. Future research should separate these factors and determine which, if any, are most important in the choice of teaching or non–teaching major.

Education and non–education majors had similar high school GPAs and ACT scores; this finding refutes the stereotype that teachers are often not as intelligent as persons in other professional positions. It does not provide defense to the myth that teaching is for the intellectually inferior or support the quip, “Those who can, do; those who can’t, teach.” This finding is encouraging as it portrays educators in a positive light.

The UNI education program has some unique characteristics that may make the present sample of teaching majors different from similar samples at other universities. UNI was formerly known as Iowa State Teachers College. As recently as the 1960s, a teaching degree was the only degree that could be earned at this university. Thirty years later, the teacher education program remains strong and prominent. The results of this study may have been influenced by the pool of potential teachers that UNI draws. Those persons who are excellent students and want to become educators may enroll at UNI due to the reputation of the teaching college. On the other hand, those persons who attend UNI and are...
undecided about their major may be more likely to choose education than they would be at another university. The number of education majors and the quality of the program may influence undecided students to be educators.

Although this study lends support to previous research that suggests personality and major or career choice are related, the reader should be cautious in generalizing the results to other fields. Perhaps the desire to teach is a unique factor and the differences in personality between non-teaching majors would not be so apparent. Participants in this study represented many diverse majors, but we were not able to explore all of them because most only had a handful of representatives.

This research may be useful to academic counselors who assist students in choosing majors, as well as to personnel psychologists who help employers and employees in workplace settings. More research is needed to determine if certain characteristics increase a person’s performance and satisfaction in a major or career because published studies often conflict with one another. It is crucial that researchers explore this facet because of its implications and consequences for career and academic counseling. If such personality tests are useful in projecting the future, academic counselors may want to provide access to personality measures to help indecisive students find a major. If they are not found to be useful, this technique could do students more harm than good by encouraging them down career paths to unsatisfying and poorly fitting occupational positions.

If students are not reaching their educational potential, critics should take a closer look before blaming the teachers. Students who plan to be educators seem to have at least some of the prescribed qualities required to be effective and successful in the classroom. Perhaps critics of education should focus their attention elsewhere to improve the quality of education in the United States; the quality of potential teachers may not be lacking. Despite low wages and the demands of the profession, it seems self-confident and agreeable students are choosing to become teachers.

References


Costa, P. T., Jr., & McCrae, R. R. (1992). Revised NEO Personality Inventory (NEO PI-R) and the NEO Five-Factor Inventory (NEO-FFI). Odessa, FL: Psychological Assessment Resources.


