

## Personality and Preservice Teachers Does It Change, Does It Matter?

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### Introduction

In the studied university, a recurring discussion among preservice teachers centers around whether good teachers are born or made. Scott and Dinham (2008) examined this issue and found that many preservice teachers believe that some people are born to be good teachers and that this is a genetic trait. Darling-Hammond (2006), however, argues that “teachers are born, not made” is a myth and highly damaging to teacher education and to education more broadly. Further, Harrison, Smithey, MacAfee, and Weiner (2006) describe the importance of having a “teacher’s heart” but assume that this can be developed in teacher candidates even before entering the teacher education program.

The argument that teachers are made, not born, is especially compelling to teacher educators. As teachers of teachers, teacher educators must believe in the learning potential of all preservice teachers admitted into their programs. If a teacher candidate has the motivation to become a reflective practitioner of the craft of teaching, then a teacher educator believes that that person can, indeed, develop into an effective teacher. However, at its heart, this is an empirical question that needs to be ex-

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amined. In article paper, the authors attempt to understand one aspect of teacher candidates, personality, and its potential impact on teaching quality. First, the authors examine which personality, according to the five-factor model, preservice teachers tend to have. Then the authors examine the stability of personality over the course of a teacher training program. Finally, the connections between teaching performance, feelings about teaching, and personality are assessed.

### Review of the Literature

Teachers are crucial to the success of schools, and researchers believe that teachers are the greatest in-school factor for a child's success in school (Nye, Konstantopoulos, & Hedges, 2004; Rivkin, Hanushek, & Kain, 2005; Rockoff, 2004). The responsibility for ensuring that each vacant teaching position is filled with a competent, if not outstanding, teacher has largely fallen to school district recruiters and the teacher education schools that prepare the candidates. The role of the teacher education schools in this process has developed into a twofold responsibility. First, teacher education schools serve as the initial gatekeepers into the profession, theoretically screening out any individuals who do not show the potential to be effective teachers. Second, these programs prepare future teachers with the necessary knowledge and skills to be effective when they are placed in schools as in-service teachers.

While alternate routes to certification exist, the authors examined preservice teachers enrolled in a university teacher-education program. The National Research Council (2010) noted that 70-80% of aspiring teachers "are enrolled in 'traditional' programs housed in postsecondary institutions; the rest enter the profession through one of the approximately 130 'alternative' routes" (p. 2). Although alternative programs tend to attract nontraditional candidates to the teaching profession (Rosenberg & Sindelar, 2005), research has revealed some key similarities in individuals that enter the profession through traditional and alternative programs. Bove, Braam, Lawrenz, and Kirchoff (2011) studied aspiring STEM teachers in alternative and traditional certification programs and found that the future teachers in these programs were similar in demographic and most affective characteristics. The goals of alternative licensure programs tend to be especially "pragmatic," "typically centering on filling specific personnel needs, such as high-need subject areas and difficult-to-staff schools" (McCray, Rosenberg, Bronwill, Leko, & Long, 2011, p. 56).

In addition to placing effective teachers in every classroom, it is nearly as important to retain them. Retaining teachers has become an important issue for school districts (Ingersoll & Smith, 2003), as

evidence points to the harmful effects of teacher turnover on students (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2008; Ronfeldt, Loeb, & Wyckoff, 2013). Teacher turnover has been an ongoing problem in U.S. schools, with large numbers of teachers leaving within the first five years of entering the profession (U.S. Department of Education, 2007). However, teachers who enter the profession with a high level of initial commitment stay in the classroom much longer (Chapman & Green, 1986; Rots, Aelterman, Devos, & Vlerick, 2010). Therefore, examining the commitment to the profession and satisfaction with career choice of recently graduated preservice teachers may be useful for understanding how long they will remain in the profession.

Understanding whether there are individual, non-malleable personality traits that predict success in the classroom is crucial for teacher education and school district teacher recruiters. Not all individuals who desire to teach are equally capable of being effective teachers (Haberman, 1995; Leigh, 2010). If specific personality traits can be identified and shown to reliably predict teacher performance, the selection role of teacher education programs must change to accommodate this understanding. Currently, teacher education programs tend to admit candidates based on academic skills, as evidenced by grade point averages and standardized tests (American Association of Colleges of Teacher Education, 2012). However, uncovering a personality trait that predicts teaching success could give teacher education programs another tool for identifying and accepting only those candidates who are likely to be successful. While this is a powerful idea, it remains unclear whether there is a link between personality traits and teaching performance.

### ***The Search for Predictors of Teaching Success***

There is an ongoing search among education researchers and school district administrators to find measurable characteristics of teachers that will predict success in classroom instruction (Rockoff, Jacob, Kane, & Staiger, 2008). A large amount of research has focused on administrative characteristics of individual teachers, such as achievement and certification test scores, teacher preparation route, certification status, and selectivity of the university attended (Goldhaber, 2008).

When focusing on these easily measurable characteristics of teachers, it can be difficult to find meaningful predictors of teacher effectiveness. High-achieving individuals, as demonstrated by their attendance at highly selective colleges and universities, do appear to be somewhat more effective in producing learning gains in their students (Boyd, Lankford, Loeb, Rockoff, & Wyckoff, 2008). Similarly, certified teachers generally

show better achievement gains than do uncertified teachers in similar teaching environments (Clotfelter, Ladd, & Vigdor, 2007). The uncertified teachers often tend to be less academically successful and are more likely to be teaching in a subject about which they are not highly knowledgeable. The teacher preparation route also has been used to predict teacher success. This comparison between traditional teacher certification programs and alternative teacher certification has shown some small advantages for traditional certification, but these differences are negligible after a couple of years of teaching (Constantine et al., 2009).

A common refrain in these efforts by researchers to identify predictors of teacher effectiveness is that individual characteristics are more important than administrative characteristics. In other words, these administration classifications, while easily accessed by researchers, do not account for the majority of the variance in teacher effectiveness. Many of the differences between teachers remain unexplained and are likely attributed to the individual characteristics of the teacher.

### ***Measuring Personality***

In the past several decades, an empirical strategy has taken prominence for measuring and identifying personality types. Research in this field has led to the creation of the “Big Five” structure of conceptualizing personality (Costa & McCrae, 1992). The five factors include neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Ripski, LoCasale-Crouch, and Decker (2011) describe the factors as follows:

Neuroticism is characterized by negative emotions, such as anxiety and low self-esteem. Extraversion is defined by being sociable and assertive. Those individuals high on openness tend to be curious and imaginative. Persons with a high degree of agreeableness are sympathetic and easily moved. Finally, conscientiousness is characterized by a high degree of responsibility and determination. (pp. 78-79)

Further, the NEO-Five Factor Inventory (NEO-FFI) (Costa & McCrae, 1992; Costa, McCrae, & Dye, 1991) has become a popular instrument for assessing personality in a variety of settings.

### ***Personality—A Stable Trait or Changing Disposition?***

If personality is a moving target, it cannot be very useful for predicting teaching success. Similarly, personality, if it is constantly in flux, would not make an effective construct for understanding whether teachers are born or made. While personality certainly changes over the course of a

person's life, there needs to be a certain level of stability of measureable personality characteristics.

There is debate in the literature over the stability of personality traits. Costa and McCrae (1994) argue that personality is largely stable. However, there is longitudinal evidence of personality change over the course of adulthood (Helson, Jones, & Kwan, 2002). In young adulthood, the picture is even less clear. The college years are considered to be a time of great change in the lives of young adults (Arnett, 2000). Research, however, does not seem to suggest that personality changes in any great way during this time of transition (Ripski et al., 2011; Robbins, Fraley, Roberts, & Trzesniewski, 2001).

The stability of personality in young adults is important in teacher education because policymakers and school officials are interested in making connections between measureable characteristics and teaching success. If personality is stable and measurable, it may be useful for predicting success in the classroom or the commitment to remain in teaching.

### ***Personality and Teaching Quality***

Outside of education, personality has been studied extensively related to workplace performance. In an extensive review of research, Ones, Dichert, Viswesvaran, and Judge (2007) argue that personality factors, specifically the Big Five, are a useful tool, stating, "The Big Five personality variables as a set predict important organizational behaviors (e.g., job performance, leadership, and even work attitudes and motivation)" (p. 1010). Personality has shown to be related to job satisfaction (Judge, Heller, & Mount, 2002) and, in certain circumstances, also correlates with job performance (Barrick & Mount, 1991). In many ways, however, teaching is a unique profession, and findings from other work environments do not necessarily pertain to the teaching environment.

Personality has been studied by educational researchers for decades. One example of such research is McCarthy's (1987) 4MAT model, which divides learners into four types based on personality and learning style: experiencing (Type 1), conceptualizing (Type 2), applying (Type 3), and creating (Type 4). This assessment measure, while noteworthy, focuses on students' attributes and not on teaching performance. In fact, there has been an inability by researchers to make clear connections between personality and teaching performance (Rockoff et al., 2008). While personality has been linked to effective teaching in a few cases (Barrett, 1991), it has not been connected to broad measures of teaching effectiveness. Rockoff et al. did find that certain aspects of personality are positively

correlated with in-service teacher evaluations but only marginally with student achievement results. While highly distinguished teachers have been shown to differ from other teachers in measured personality, Rush-ton, Morgan, and Richard (2007) did not attempt to correlate teaching effectiveness and personality. Other research on personality in teaching has shown links between personality and important factors other than student achievement. Innes and Kitto (1989) found that teachers who demonstrated high neuroticism were more likely to suffer from stress.

Little research has been conducted on the relationship between the personality of preservice teachers and their teaching performance. In perhaps the most complete study conducted to date on preservice teacher personality and teaching performance, Ripski et al. (2011) showed a link between conscientiousness and observed teaching performance. Further, Jamil, Downer, and Pianta (2012) demonstrated a link between personality and teaching self-efficacy. They showed that extraverted preservice teachers were more likely to have high self-efficacy in their teaching abilities. This does not necessarily show, however, that extraverted preservice teachers are more effective teachers.

This study seeks to build on the work of Rockoff et al. (2008) and Ripski et al. (2011). Specifically, it seeks to replicate the work of Ripski et al. in their analysis of the stability of preservice teacher personality and to build on that study by adding an outcome measure. As noted, while teaching performance may be highly important, retaining good teachers is equally, if not more, important. The importance of these concepts inspired this study, which uses survey questions that determine satisfaction with the decision to become a teacher and may indicate commitment to the profession.

## Methods

### *Procedures*

Data were collected at a mid-Atlantic university's school of education, considered "most selective" (U.S. News & World Report, 2012), over four years, as part of a larger data-gathering initiative (Wiens, 2014). Participants in this study were preservice teachers in a five-year bachelor's plus master's degree program. In this program, students enter the teacher education program in the third year of their undergraduate program. They complete the majority of their education coursework and all of their undergraduate coursework by the end of their fourth year. Students then participate in a one-semester fall student teaching placement in their fifth year. Here, the authors report on 89 participants from two cohorts of students who completed the surveys three times and represent ap-

proximately 34% of the total teacher education students in each cohort. The surveys used in this study are part of a required block of surveys that teacher education students are expected to complete each year, unless they elect to complete alternative research assignments (Wiens, 2014).

The sample was 89% female and 11% male. Further, 74% of the participants identified themselves as Caucasian, 11% as Asian, 5% as African American, and 10% as other racial categories or unspecified. In the sample, 54% were seeking licensure in elementary education, 15% in English, 6% in foreign language, 7% in mathematics, 3% in science, 13% in social studies, and 2% in other areas.

### ***Measures***

Data for this study were collected using three different measures. The two survey instruments were on-line measures for which preservice teachers responded to questions and statements. The two survey measures are part of the same, larger survey that preservice teachers complete during each year of their teacher education program. As noted, the surveys are completed in the spring semester; therefore, the third administration of the surveys was completed after the student teaching experience in the semester prior to the individuals' entering the teaching profession. The third instrument was a standardized observational tool for assessing teaching effectiveness through examining teacher-student interactions. Preservice teachers were not provided with the results of any of the instruments for the data reported herein.

*Personality measure.* Preservice teacher personality was measured using the NEO-FFI, which, as noted, identifies five personality factors: neuroticism, extraversion, openness, agreeableness, and conscientiousness (Costa et al., 1991; see Appendix A). Participants responded to 60 items on a 5-point Likert scale of 1=strongly disagree to 5=strongly agree, for which higher responses indicated a greater inclination to that personality type. Items from the different factors included, "I often feel inferior to others" (neuroticism); "I like to have a lot of people around me" (extraversion); "I often try new and foreign foods" (openness); "Most people I know like me" (agreeableness); and "I keep my belongings neat and clean" (conscientiousness).

*Teaching effectiveness measure.* Preservice teacher effectiveness was measured by the Classroom Assessment Scoring System (CLASS). CLASS has been recognized as an important method of monitoring effective teaching and has been selected as a monitoring tool for Head

Start programs (La Paro, Pianta, & Stuhlman, 2004; LoCasale-Crouch et al., 2007). CLASS also has been utilized by various researchers as an effective measurement in elementary and secondary classrooms (Graue, Rauscher, & Sherfinski, 2009; La Paro et al., 2009; Malmberg & Hagger, 2009). Studies sponsored by several recognized educational research agencies, such as the Gates Foundation, Educational Testing Service, and the National Institute of Child Health and Human Development, also have used CLASS (Ewing, 2008; Gates Foundation, 2010).

Pianta and Hamre (2009) conceptualized CLASS as an observation tool that assesses those teacher-student interactions that contribute to student development as a result of the classroom experience and environment. The CLASS framework divides classroom interactions into three major domains: emotional supports, classroom organization, and instructional supports. Each of the three domains represents a set of ten specific dimensions of academic and social supports that are linked to student development (Hamre, Pianta, Mashburn, & Downer, 2007; Pianta & Hamre, 2009). Finally, each of the dimensions is supported by indicators that are demonstrable to the observer. For example, a teacher who is observed providing repetitive and scaffolded feedback to students during instruction would be assessed as appropriate within the instructional support domain, the quality of feedback dimension, and the feedback loop indicator.

The CLASS framework is supported by research in both education and psychology (Hamre & Pianta, 2007) and is designed to be a useful metric for the systematic research of classroom effects in teacher education (Hamre et al., 2007; Pianta & Hamre, 2009). Teacher-student interactions are the “proximal processes that determine the extent to which schooling effectively leads to development and learning” (Hamre et al., 2007, p. 20). Because the CLASS framework focuses on proximal processes in classroom interactions, it is conceptually relevant across grade levels, from preschool to high school. CLASS-based studies have consistently found associations between observable classroom behaviors outlined in the CLASS protocol and student development and learning (Curby, Rimm-Kaufman, & Ponitz, 2009; Pianta, Belsky, Vandergrift, Houts, & Morrison, 2008).

In the teacher education program, preservice teachers in their final year complete a one-semester student teaching placement in the fall semester. The preservice teachers video-record themselves during a specified period of time when they have taken on full teaching responsibilities. From the videos, two sets of CLASS codes are generated by trained raters from different teaching sessions that are then composited into one mean score. Raters were initially trained to reliability on the

tool through a rigorous two-day training session, where they learned the CLASS framework and conducted multiple practice tests. Then, observers passed a reliability test by using the CLASS tool successfully across multiple classroom situations. All raters must demonstrate an 80% agreement of within one score of a master coding list to be considered reliable. In this study, the raters were often the university supervisors assigned to mentor and evaluate the student teachers.

*Satisfaction with teaching and commitment to teaching.* The Factors Influencing Teaching Choice (FIT-Choice) Scale measures the factors that influence the choice to teach for preservice teachers and the feelings about the decision to become a teacher (Watt & Richardson, 2007). This study used a sub-scale of the FIT-Choice scale that addresses satisfaction with teaching choice. The five items used in this study begin with, "Your thoughts regarding teaching . . . ," and participants rate their responses to the statements on a 7-point Likert scale from 1=not at all to 7=extremely. The five questions are as follows:

1. How satisfied are you with your choice of a teaching career?
2. How sure are you that you will persist in teaching?
3. How much effort will you put into your teaching?
4. To what extent do you aim to undertake further professional development?
5. To what extent do you aim to take up a leadership role in schools?

These five questions provide some indication of the commitment to teaching that preservice teachers in this sample hold in the semester prior to entering the teaching workforce.

### Analysis

As noted, the 60 items in the survey were composited into five factors: neuroticism, extraversion, openness, agreeable, and conscientiousness. Cronbach's alphas were computed for each factor to determine internal consistency. All factors were well within acceptable ranges for reliability. The neuroticism alphas ranged from  $\alpha=.85$  in the first year to  $\alpha=.87$  in both the second and third administration of the survey. Extraversion factors had lower reliability coefficients but were still within acceptable ranges, from  $\alpha=.84$  in the first year,  $\alpha=.82$  in the second year, and  $\alpha=.78$  in the third year. Reliability coefficients for the openness factor were  $\alpha=.75$ ,  $\alpha=.76$ , and  $\alpha=.73$  for the first to third years, respectively. The agreeable factor showed strong reliability as well, with Cronbach's

alphas of  $\alpha=.82$ ,  $\alpha=.84$ , and  $\alpha=.87$  for the three administrations of the survey. Finally, conscientiousness was  $\alpha=.87$  for the first year,  $\alpha=.87$  for the second, and .90 for the final year.

Longitudinal and descriptive analysis was conducted in three parts. The purpose of the analysis was to understand whether anyone can learn to become an excellent teacher or whether there is an internal personality trait that determines teaching success. For a tool to be useful in measuring a personality trait, it must first demonstrate stability of personality over time. To determine whether personality was a stable construct over time in the sample of preservice teachers, NEO-FFI factors were examined over the three years of the program. The results of this analysis, conducted using paired sample t-tests for the differences between the first and last administrations of the personality survey, were significant.

The second analysis was conducted to determine which personality types were strongest in the sample of preservice teachers. Simple descriptive analysis was run to determine the strongest personality types of the preservice teachers. Means and standard deviations were calculated across the three administrations of the personality survey. Similarly, descriptive statistics were calculated for teaching performance using the CLASS measure.

The final analysis provided evidence of the associations between personality, the teaching success of preservice teachers in their student teaching placements, and their career choice satisfaction. Bivariate correlations were calculated using all of the NEO-FFI factors, each of the three domains of CLASS scores (emotional supports, classroom organization, and instructional supports), and the five questions from the career satisfaction survey. Analysis was conducted using SPSS software, Version 18. Results of longitudinal analysis supported conducting the correlation analysis using only the final year survey data. This also was consistent with the fact that the CLASS data were collected only in the third year of data collection.

## Results

Analysis of the stability of personality over the three years of the five-year bachelor's plus master's degree program showed no change from year one to year three. Results of the paired samples t-tests are reported in Table 1. The change in factor scores from the first year to the third year is recorded in the second column from the right ( $\alpha$ ). The changes in scores were quite small, ranging from .08 to .01. None of the differences between the first and third years was significant, with values from  $p=.141$

to  $p=.838$ . The demonstrated stability of personality over the three-year teacher education program allowed for further analysis of the data.

The second set of analysis sought to understand the personality types of preservice teachers who completed the survey at all three time points. Descriptive results are presented in Table 2. In the third year, preservice teachers in this sample demonstrated highest scores in the agreeableness ( $M=4.01$ ) and conscientiousness ( $M=4.00$ ) factors. Extraversion ( $M=3.68$ ) and openness ( $M=3.48$ ) were somewhat less strongly associated with preservice teachers in this sample. Based on the survey responses collected in this study, preservice teachers showed the least tendency toward neuroticism ( $M=2.53$ )

Correlations were calculated to estimate the association between personality, teaching performance as measured by CLASS, and career satisfaction. Results of the bivariate correlations are displayed in Table 3. For these preservice teachers, there was no relationship between personality as measured by the NEO-FFI and teaching performance as measured by CLASS. This can be seen in the lack of significant correlations between any of the NEO-FFI factors and the three CLASS domains. Correlations between personality and CLASS ranged from  $r=.006$  to the largest association of  $r=.204$ ; however, none of these was statistically different from zero.

Personality did have a relationship with career satisfaction. The neuroticism factor showed a negative relationship with three of the questions on the satisfaction survey. Preservice teachers who scored high in neuroticism were less likely to be satisfied with teaching ( $r=-.277, p<.01$ ), to plan to persist in teaching ( $r=-.311, p<.01$ ), or to put a high level of effort into teaching ( $r=-.213, p<.05$ ). Not surprisingly, a high extraversion factor showed the opposite relationship to career satisfaction, with those individuals' being more satisfied with teaching ( $r=.253, p<.05$ ), planning

**Table 1**  
***Longitudinal Results***

	Year 1	Year 2	Year 3		
Factor	<i>M</i> (SD)	<i>M</i> (SD)	<i>M</i> (SD)	$\alpha$	<i>p</i>
Neuroticism	2.61 (.63)	2.63 (.65)	2.53 (.62)	-.08	.189
Extraversion	3.73 (.53)	3.67 (.51)	3.68 (.46)	-.05	.141
Openness	3.47 (.55)	3.39 (.55)	3.48 (.53)	-.01	.685
Agreeableness	3.99 (.49)	3.97 (.51)	4.01 (.53)	.02	.820
Conscientiousness	3.99 (.57)	3.91 (.56)	4.00 (.61)	.01	.838

to persist in teaching ( $r=.210, p<.05$ ), and putting effort into teaching ( $r=.359, p<.001$ ). Additionally, extraversion was positively associated with individuals who plan to seek leadership roles in schools ( $r=.301, p<.01$ ). A high agreeableness factor showed similar correlations as did the extraversion factor, with these individuals' being more satisfied with teaching ( $r=.234, p<.05$ ), planning to persist in teaching ( $r=.279, p<.01$ ), and putting effort into teaching ( $r=.399, p<.001$ ). The conscientiousness factor was highly correlated with the statement about putting effort into teaching ( $r=.460, p<.001$ )

Teaching performance as measured by CLASS did show some relationship to the career satisfaction survey questions. The classroom organization domain, which is comprised of behavior management, productivity, and instructional learning formats, was negatively associated with two of the career satisfaction questions. Less effective teachers in

**Table 2**  
***Correlations between Personality Factors,***  
***Teaching Performance, and Teaching Choice (Year 3)***

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Neuroticism	2.53	.62	1	-.372 ***	-.215 *	-.387 ***	-.416 ***	.010	-.061	.103	-.277 **	-.311 **	-.213 *	.074	.002
2. Extraversion	3.68	.46		1	.287 **	.367 **	.307 **	.204	.033	-.020	.253 *	.210 *	.359 ***	.096	.301 **
3. Openness	3.68	.53			1	.317 **	-.034	.155	.088	.027	.093	.051	.149	.092	.139
4. Agreeableness	4.01	.53				1	.343 ***	.171	-.116	.074	.234 *	.279 **	.399 ***	.035	.021
5. Conscientious	4.00	.61					1	.006	.147	-.057	.131	.159	.460 ***	.146	.206
6. CLASS ES	5.27	.596						1	.603 ***	.632 ***	-.133	-.072	.098	-.078	.052
7. CLASS CO	4.99	.771							1	.341 **	-.348 **	.371 **	.017	-.203	.044
8. CLASS IS	3.67	.898								1	-.029	-.046	.068	-.012	.148
9. Career Satisfaction	5.93	1.064									1	.842 ***	.372 ***	.264 *	.176
10. Persist in Teaching	5.70	1.36										1	.377 ***	.236 *	.104
11. Effort in Teaching	6.55	.640											1	.393 ***	.363 ***
12. Further Prof. Development	5.82	1.211												1	.656 ***
13. Leadership Role in Schools	5.62	1.257													1

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$

terms of classroom organization were less likely to be happy with teaching ( $r=-.348, p<.01$ ) or to plan to persist in teaching ( $r=-.371, p<.01$ ).

### Discussion

The data presented herein suggest that personality is reasonably stable in young adult preservice teachers. Personality did not change over the course of a three-year teacher education program. This finding agrees with Robbins et al. (2001), who also found little substantial change in college student personality over the course of four years, and Ripski et al. (2011), who found no change at all. This finding was substantively important for this project because it allowed further investigation into the relationship between personality and teaching performance.

Additionally, the finding of personality stability makes the case that repeated measuring of young adult personality using a five-factor inventory is unnecessary. Personality indicators, such as the one administered in this study, tend to be long and time consuming. Understanding the stability of personality as measured by the NEO-FFI allows us to eliminate repeated testing.

Descriptive analysis showed that preservice teachers in this sample were predisposed to the agreeableness and conscientiousness factors. It is important to remember that the sample of preservice teachers described in this paper attend a highly selective university. Individuals who attend this university have shown the ability to do very well in academic settings. Therefore, it is not surprising that students would be highly agreeable and conscientious. These two qualities would help to make a student successful in academic settings.

**Table 3**  
***Regression Analysis Results***

	Emotional Support	Classroom Organization	Instructional Supports
	$\beta$	$\beta$	$\beta$
Neuroticism	.103	-.013	.117
Extraversion	.180	.054	-.027
Openness	.088	.064	.010
Agreeableness	.101	-.218	.126
Conscientiousness	-.024	.187	-.034
Final Adjusted R2	-.017	-.032	-.066

In contrast, students in this study showed a low inclination toward the neuroticism factor. This can be seen as a positive outcome because research indicates that neuroticism is associated with negative affect and a tendency toward psychological distress (Costa & McCrae, 1980). While not directly correlated with teaching performance as measured by CLASS in this sample, certainly teachers who are less inclined to emotional and psychological stress may be better equipped to contend with the challenges of entering the teaching profession.

Additional analysis suggests that personality type as measured by the five-factor inventory is not correlated with teaching performance as measured by CLASS. These findings suggest that personality is not a predictor of teaching performance and should not be used in teacher education admission decisions or in the hiring decisions of schools. The non-significant relationship between personality and preservice teaching effectiveness mirrors results found by Rockoff et al. (2008). In their study, they found a positive relationship between conscientiousness and extraversion and teacher effectiveness for first-year in-service teachers, but it also was not significant. These data are encouraging for teacher education programs because they indicate that all personality types are equally capable of becoming excellent teachers.

There was, however, a significant relationship between personality and career satisfaction. The preservice teachers who scored high in neuroticism were less likely to be happy with their career choice, less likely to pursue teaching as a career, and less likely to plan on putting effort into teaching. Teachers who are more committed to teaching upon exiting the teacher education program tend to stay in teaching longer (Chapman & Green, 1986; Rots et al., 2010). Thus, it bears noting that certain personality types, extraversion and agreeableness, appear more predisposed to persisting in the teaching profession.

Finally, the finding that preservice teachers who demonstrate low instructional quality are less likely to persist in teaching warrants special consideration. Perhaps this is an indication that some of the preservice teachers who are not suited to a teaching career are voluntarily removing themselves from the profession. This also may indicate the importance of the student teaching placement. These preservice teachers completed the career satisfaction survey when their most recent and most important teaching experience was a one-semester student teaching placement. Following that placement, some of the preservice teachers have clearly decided that teaching is not a good career choice for them.

The data presented in this study suggest two related, but somewhat contradictory, findings. First, data from this study suggest that specific personality traits are not specific to teaching, as these traits are not

associated with teaching performance. However, teachers of certain personality types might be more satisfied with teaching as a career and stay in the profession longer.

### Limitations and Future Research

The sample for this study is a very specific preservice teacher population. The fact that it comprised only one-third of students in two cohorts at a highly selective university certainly limits the ability to make generalizations outside of the sample. It is possible that certain personality types are likely to attend highly selective universities and, therefore, the variability in personality distribution is limited in this sample. The small sample size also may have limited the statistical power to detect significant relationships between variables measured in this study. In addition, the preservice teachers represented in this sample represent specific demographics, with their particular ages, genders, ethnicities, and socioeconomic statuses. Replicating this study in a broader population of preservice teachers may yield even more conclusive results.

The authors began by asking whether great teachers are born or made. The evidence here suggests that personality, as a cornerstone of who teachers are, does not have a relationship to teaching quality. However, there may be other aspects of personality not measured by the NEO-FFI that do predict teaching quality. Perhaps motivation or reflective behaviors could be reasonable predictors of teaching quality. Future research needs to be conducted using a wider variety of personality-related measures to understand this issue more fully.

This study also was limited by time. The authors tested the relationship between personality and teaching effectiveness in the student teaching placement. Future research should be conducted that tests the same relationship but also follows preservice teachers into the field. Further longitudinal analysis needs to be conducted that follows preservice teachers through their teacher education program and into the field to begin to understand what characteristics of preservice teachers predict teaching quality.

### Conclusion

Are great teachers born that way? Evidence suggests that personality, a stable trait through young adulthood, is not associated with teaching ability. This analysis contributes to an empirical understanding that anyone can become a great teacher. The purpose of this article was not

to make a definitive argument about whether great teachers are born or made but simply to contribute to the discussion.

The data reported in this article have implications for teaching education programs. The first of these implications is that personality is not a predictor of teaching performance and, therefore, should not be used in admissions decisions for teacher education programs. This is because personality as measured by the five factor inventory is not correlated with the CLASS measurement of teaching performance. This finding builds on previous research (Rockoff et al, 2008) that suggests that teachers with a variety of personality traits can become effective teachers.

However, the data also suggest that teacher education programs look carefully at pre-service teachers enrolled in their programs who display characteristics of neuroticism to help those individuals decide whether they will ultimately enjoy teaching as a career and stay in the profession. Because pre-service teachers who score high in neuroticism were less likely to be happy with their career choice, less likely to pursue teaching as a career, and less likely to plan to put effort into teaching, it may behoove teacher education program faculty and administrators to look for visible signs of anxiety and low self-esteem among their pre-service teacher candidates. After identifying students who display these characteristics, teacher educators can closely monitor them and observe their progress. Monitoring and tracking the progress of these students can allow teacher educators to gauge their effectiveness. If anxiety and low self-esteem appear to be hindering the pre-service teachers' likelihood of becoming happy and effective teachers, teacher educators can then meet with these students to help them decide whether teaching is ultimately the best career for them.

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## Appendix A

### ***NEO-5 Factor Inventory***

#### *Neuroticism*

1. I am not a worrier\*
6. I often feel inferior to others
11. When I'm under a great deal of stress, sometimes, I feel like I'm going to pieces
16. I rarely feel lonely or blue\*
21. I often feel tense and jittery
26. Sometimes I feel completely worthless
31. I rarely feel fearful or anxious\*
36. I often get angry at the way people treat me
41. Too often, when things go wrong, I get discouraged and feel like giving up
46. I am seldom sad or depressed\*
51. I often feel helpless and want someone else to solve my problems
56. At times I have been so ashamed I just wanted to hide

#### *Extraversion*

2. I like to have a lot of people around me
7. I laugh easily
12. I don't consider myself especially "light-hearted"\*
17. I really enjoy talking to people
22. I like to be where the action is
27. I usually prefer to do things alone\*
32. I often feel as if I'm bursting with energy
37. I am a cheerful, high-spirited person
42. I am not a cheerful optimist\*
47. My life is fast-paced
52. I am a very active person
57. I would rather go my own way than be a leader of others\*

#### *Openness to Experience*

3. I don't like to waste my time daydreaming\*
8. Once I find the right way to do something, I stick with it\*
13. I am intrigued by the patterns I find in art and nature
18. I believe letting students hear controversial speakers can only confuse and mislead them\*

- 23. Poetry has little or no effect on me\*
- 28. I often try new and foreign foods
- 33. I seldom notice the moods or feelings that environments produce\*
- 38. I believe we should look to our religious authorities for decisions on moral issues\*
- 43. Sometimes when I am reading poetry or looking at a work of art, I feel a chill or a wave of excitement
- 48. I have little interest in speculating on the nature of the universe or the human condition\*
- 53. I have a lot of intellectual curiosity
- 58. I often enjoy playing with theories or abstract ideas

*Agreeableness*

- 4. I try to be courteous to everyone I meet
- 9. I often get into arguments with my family and co-workers\*
- 14. Some people think I'm selfish and egotistical\*
- 19. I would rather cooperate with others than compete with them
- 24. I tend to be cynical and skeptical of others' intentions\*
- 29. I believe that most people will take advantage of you if you let them\*
- 34. Most people I know like me
- 39. Some people think of me as cold and calculating\*
- 44. I'm hard-headed and tough-minded in my attitudes\*
- 49. I generally try to be thoughtful and considerate
- 54. If I don't like people, I let them know\*
- 59. If necessary, I am willing to manipulate people to get what I want\*

*Conscientiousness*

- 5. I keep my belongings neat and clean
- 10. I'm pretty good about pacing myself so as to get things done on time
- 15. I am not a very methodical person\*
- 20. I try to perform all the tasks assigned to me conscientiously
- 25. I have a clear set of goals and work toward them in an orderly fashion
- 30. I waste a lot of time before settling down to work\*
- 35. I work hard to accomplish my goals
- 40. When I make a commitment, I can always be counted on to follow through
- 45. Sometimes I'm not as reliable or dependable as I should be\*
- 50. I am a productive person who always gets the job done
- 55. I never seem to be able to get organized\*
- 60. I strive for excellence in everything I do

\* Item is reverse coded.