Impact of Teacher Personality Styles on Academic Excellence of Secondary Students

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ABSTRACT

The focus of this study was to determine if there was a significant relationship among tenth and eleventh graders' (secondary students) Texas Assessment of Knowledge and Skills (TAKS) scores due to teacher personality styles. The study used the Big Five Inventory (BFI), to assess teachers' criterion referenced test. The study used two years' worth of TAKS test scores for secondary students in grades ten and eleven. Secondary students' TAKS scores were compared to the teachers' BFI surveys to determine if there was a significant relationship to tenth and eleventh graders' TAKS scores due to the teacher's personality style. Results indicate that there is a significant difference among the academic excellence of secondary students based on teacher personality style.

With the push for accountability in the United States, educators are looking at ways to improve scores on state-mandated tests (Olson, 2000). Texas has aligned the Texas Essential Knowledge and Skills (TEKS), the state curriculum, with the Texas Assessment of Knowledge and Skills (TAKS) test, the current state assessment. According to Stevenson and Kritsonis (2009), the TAKS test is an assessment that is given annually to public school children beginning in the third grade, but there are key grades where students must pass the TAKS to graduate high school or be promoted to the next grade level. Ninth grade students take a reading and math

TAKS, while tenth and eleventh grade students take an English language arts, mathematics, science and social studies TAKS. Eleventh grade is a critical grade because the student must pass the TAKS with a score of 2100 (met standard) or better to graduate. Students who fall short of this score on any area of the test are given more opportunities to pass before graduation; however, if one does not pass the TAKS test, the student is unable to graduate (Stevenson & Kritsonis, 2009). Districts are challenged with the idea of how to help Texas students achieve success on the TAKS. This is an issue with schools throughout the state and most are looking for original and new ways to increase students' test scores and schools' accountability ratings, which are principally based on test scores.

Kritsonis (2007) suggested that to increase academic achievement, the fundamental tasks of most educational institutions is to establish, define, and organize the curriculum. Kritsonis (2007) pointed out that there is more to learn, more to teach, and more to put in the curriculum than there is time available. Deciding what takes precedent poses a challenge for teachers while planning their lessons. Educators must find a way to meet the needs of students and prepare them for graduation from high school (Bard, Gardener, & Wieland, 2005). Bard, Gardener, and Wieland (2005) stated that the cost associated with these tasks has been an ongoing concern for policymakers at both the state and federal levels.

A study by Richardson and Arker (2010) suggested that personality styles need to be recognized to meet individual students' needs. Understanding personality profiles allows educators to be proactive in determining a better fit for each student (Richardson & Arker, 2010). Richardson and Arker (2010) also suggested that overall productivity can be enhanced by bringing together individuals with similarities. Davis (2006) and McCombs and Miller (2006) emphasized that good relationships between students and teachers often lead to increased student performance. They implied that examining the relationship between the student and teacher would provide a good predictor of the learners' motivation to achieve academically.

A concern facing education is the variety of personality styles that could either negatively or positively impact academic excellence in secondary students. A study was done by Cooper and Benis (1967) looking at teacher personality, teacher behavior and their effects upon pupil achievement. The students' grades, using a non-standardized score were used to reflect achievement. The personality assessment that was used was a forced-choice scale. Levin's (2006) study made reference to assessing teacher personality and the effects on academic achievement, but the focus of that study was on the leadership component and its effects on student learning.

Moscoso and Slagado (2004) examined negative types of personalities, which they refer to as the "dark side" and its effect on job performance. The study showed that there were seven types of personality styles that negatively impacted job performance—shyness, suspiciousness, sadness, pessimism, suffering, eccentricity, and riskiness. However, Moscoso and Slagado (2004) did not study the effects of a person's personality on another person's job performance.

Cooper and Benis (1967) said, "If certain patterns of teacher classroom behavior could be demonstrated to relate to pupil achievement (or the reverse) then we would be in a position to guide the development of that teacher's behavior which leads to pupil learning" (p.1). This study connected teachers' personalities and behaviors as factor for student learning. The scale that was used to assess a teacher's personality was the Edwards Personal Preference Schedule (EPPS), developed in 1959.

Smith (1997) argued that there is a close connection between the academic discipline in the public life of psychology and psychology in relation to the study of differences among people. Smith (1997) made reference to the psychology of an individual as that person's personality style. Even though studies have researched individual personality styles and how they have evolved over time, there is a lack of studies that examine a person's individual personality style and how it may have affected another person's success (Levin, 2006; Jacocca, n.d.; Richardson & Arker, 2010). The profile that was the focus of this study was "The Five Factor Model or The Big Five," one that numerous researchers have established and supported. The Five Factor Model was originally developed by Barrick and Mount (1991).

This study examined personality styles as a contributing factor to the success or failure in tenth and eleventh grade students' academic achievement based on TAKS scores. This study focused on the impact of teacher personality styles on secondary learners in the areas of English Language Arts, mathematics, science, and social studies for two academic school years.

Methodology

The model used to determine educators' effectiveness according to personality style was the "Five Factor Model of Personality." The academic success of students in grades ten and eleven was measured using their Texas Assessment of Knowledge and Skills (TAKS) scores. These scores were utilized and cross-referenced with survey results to determine an individual educator's personality style, so that the impact on secondary learners could be assessed.

The research method used for the study was quantitative. The two critical factors were (1) standardized TAKS scores collected from the 2008-2009 and 2009-2010 school years and (2) personality of the teacher as determined by the Big Five Inventory (BFI).

The BFI has 44 questions that identify a respondent's personality type. The BFI instrument used a five-point Likert Scale. The BFI survey instrument was based on a five-point Likert scale format, in which respondents utilized the following choices: agree strongly (5), agree a little (4), neither agree or disagree (3), disagree a little (2), and disagree strongly (1), to answer survey questions.

An analysis of variance (ANOVA) for each school year, 2008-2009 and 2009-2010, was used to determine if the independent variable (teacher's personality) had an impact on the dependent variable (students' TAKS scores).

Population

Participants in the study were seven English teachers, eight social studies teachers, six science teachers, and 11 math teachers. Within the sample population, 20% of teachers had been in education at least 11 years and 60% of them held at least a bachelor's degree. The highest reported age range was 46 years or older at 34%, while the second greatest age range was ages 38 to 41 and 26 to 29 each at an 18% response rate. The majority of the participants held a bachelor's degree. The results showed that the majority of the participants have taught from one to five years. Most participants were female (78%) and 34 % of the participants were 46 or older. The participants held a teaching certificate in the subject area in which they taught, and 17 %

also held additional certificates. The number of students was: 1138 in English language arts, 1472 in math, 978 in social studies, and 801 in science.

Results

Five of eight one way ANOVA's run for 10th grade for the school years 2008 - 2009 and 2009 – 2010 school year were statistically significant. It appears that five of the eight yield higher TAK's scores teachers with a personality of *Conscientiousness*, than teachers with other personality styles. The remaining three for the school years 2008 - 2009 and 2009 – 2010 school year were also statistically significant. Tenth grade students in 2008-2009 scored higher on the TAK's test when the teachers' personalities were either *Agreeable* or *Neurotic* and for the 2009-2010 the students scored higher on the TAK's with a teacher who had a personality style of *Openness*.

Conscientiousness teachers account for 84 % of the 10th grade English language arts teachers for the 2008-2009 school year. The results of the one-way ANOVA was significant, *F* $(1,109) = 8.549$, *p* $= .004$. English language arts students scored higher on the TAKS test with teachers whose BFI personality style was *Conscientiousness*.

Conscientiousness teachers account for 87 % of the 10th grade English language arts teachers for the 2009-2010 school year. The results of the one-way ANOVA was significant, *F* $(2,179) = 5.066$, *p* $= .007$. Personality styles of teachers for the 2009-2010 school year teaching English language arts at grade 10, was disaggregated by three groups. The *post hoc* analysis indicated teachers with the BFI personality style of *Neuroticism* had students who scored lower on their TAKS test than students who had *Conscientiousness* or *Agreeableness* teachers.

Agreeableness and *Neuroticism* account for over 32 % while the other two categories account for less than 20 % of 10th grade teachers teaching mathematics. The results of the one-way ANOVA was significant, $F(3, 343) = 34.406$, *p* $= .001$. Teacher personality styles of mathematics for the 2008-2009 school year teaching grade 10, was disaggregated by four groups. The *post hoc* analysis indicated math students of teachers with the BFI personality style of *Openness* scored lower on the TAKS test than students of teachers in the other three categories. Students with teachers with a personality style of *Agreeableness* had higher scores than students who had teachers with a personality style of *Extrovert* or *Conscientiousness*. However, students of *Conscientiousness* teachers and *Extrovert* teachers scored the same. The students of *Conscientiousness* teachers and *Agreeable* teachers scored the same.

Openness teachers account for 56 % of the 10th grade math teachers for the 2009-2010 school year. The results of the one-way ANOVA was significant, $F(3,354) = 34.081$, $p = .001$. The level of significance for the procedure was 0.001. Teacher personality styles of mathematics for the 2009-2010 school year teaching grade 10, was disaggregated by four groups. The *post hoc* analysis indicated the following that students of *Openness* and *Extroverted* teachers scored the same, students of *Extroverted*, *Conscientiousness*, and *Agreeableness* teachers scored the same, and students of *Openness* teachers scored lower than students of *Conscientiousness* and *Agreeableness* teachers.

Conscientiousness teachers account for 78 % of the 10th grade science teachers for the 2008-2009 school year. The results of the one-way ANOVA was significant, $F(1,316) = 11.789$,

p = .001. Science teachers with BFI personality style of *Conscientiousness* had students who scored higher on the TAKS test then science teachers with the personality style of *Openness*.

Conscientiousness teachers account for 92% of 10th grade science teachers for the 2009-2010 school year. The results of the one-way ANOVA was significant, $F(1,360)$ = 3.980, p = .047. Science students with teacher BFI styles of *Conscientiousness* scored higher on the TAKS test then those with teacher BFI styles of *Openness*.

Conscientiousness teachers account for 80% % of 10th grade social studies teachers for the 2008-2009 school year. The results of the one-way ANOVA was significant, $F(1,307)$ = 34.267, p = .0001. Social studies teachers who possessed the BFI personality style of *Conscientiousness* had students who scored higher on the TAKS test then social studies teachers with the personality style *Agreeableness*.

Agreeableness and *Openness* account for less than 12 % while *Conscientiousness* teachers account for 82 % of 10th grade social studies teachers for the 2009-2010 school year. The results of the one-way ANOVA were significant, $F(2, 154)$ = 8.334, p = .001. Personality styles of social studies teachers for the 2009-2010 school year teaching grade 10, was disaggregated by three groups. The *post hoc* analysis indicated that teachers with the BFI personality style of *Conscientiousness* and *Openness* had students who scored higher on the TAKS test than students with *Agreeableness* teachers.

Six of eight one way ANOVA's run for 11th grade for the school years 2008-2009 and 2009-2010 school years were not statistically significant. Two were statistically significant: English language arts teachers with a personality style of *Conscientiousness*, *Agreeableness* and/or *Openness* teaching 11th grade students for the school year 2009-2010 and teachers who taught math with a personality style of *Agreeableness* teaching 11th grade students for the school year 2008-2009.

Conscientiousness and *Agreeableness* teachers account for more than 38 %, while *Neuroticism* teachers account for 22 % of 11th grade English language arts teachers for the 2008-2009 school year. The results of the one-way ANOVA was not significant, $F(2, 340)$ = 2.151, p = .118. The teacher personality types of *Agreeableness*, *Conscientiousness*, and *Neuroticism* during the 2008-2009 school year showed no significant difference in the academic achievement of eleventh grade students TAKS scores.

Conscientiousness, Agreeableness, and *Openness* teachers account for 22 % or more of 11th grade English language arts teachers for the 2009-2010 school year. The results of the one-way ANOVA was significant, $F(3, 489)$ = 26.993, p = .001. Teacher personality styles of English language arts for the 2009-2010 school year teaching grade 11, was disaggregated by four groups. The *post hoc* analysis indicated teachers with the BFI personality style of *Agreeableness, Conscientiousness,* and *Neuroticism* had students who scored lower on the TAKS test than students who had teachers whose personality reflected *Openness*.

Agreeableness teachers account for 46 % of 11th grade mathematic teachers for the 2008-2009 school year. The results of the one-way ANOVA was significant, $F(2, 476)$ = 15.671, p = .001. Teacher personality styles of math for the 2008-2009 school year teaching grade 11 was disaggregated by three groups. The *post hoc* analysis indicated students of teachers with the BFI personality style of *Extrovert* and *Conscientiousness* scored lower on TAKS than those who had teachers who were in the *Agreeableness* category.

Conscientiousness teachers' account for 28 %, *Agreeableness* teachers account for 35 % while *Extrovert* teachers account for 38 % of 11th grade mathematic teachers for the 2009-2010

school year. The results of the one-way ANOVA was not significant, $F(2, 278) = 842$, $p = .432$. Teachers with the BFI personality styles of *Extrovert*, *Agreeableness*, and *Conscientiousness* who taught mathematics for the 2009-2010 school year showed no significant difference in the academic achievement of eleventh grade students TAKS scores.

Conscientiousness teachers account for 74 % of 11th grade science teachers for the 2008-2009 school year. The results of the one-way ANOVA was not significant, $F(1,200) = .066$, $p = .798$. *Conscientiousness* teachers account for 90 % of 11th grade science teachers for the 2009-2010 school year. The results of the one-way ANOVA was not significant, $F(1,94) = .217$, $p = .642$. Science students in the 2008-09 school year and in the 2009-10 school year showed no significant difference in TAKS scores whether they had *Conscientiousness* teachers or *Openness* teachers.

Agreeableness teachers account for 70 % of 11th grade social studies teachers for the 2008-2009 school year. The results of the one-way ANOVA was not significant, $F(2, 106) = 2.527$, $p = .085$. *Agreeableness* teachers account for 55 % of 11th grade social studies teachers for the school year 2009-2010. The results of the one-way ANOVA was not significant, $F(2, 212) = 2.573$, $p = .079$. Teachers with the personality type of *Extrovert*, *Agreeableness*, or *Conscientiousness* who taught social studies for the 2008-2009 school year and in the 2009-2010 school year showed no significant difference in the academic achievement of eleventh grade students TAKS scores.

Discussion

A teacher's personality style plays a part in student success. The data indicated in 10 of 16 analyses that the level of significance for the procedure was less than 0.05, less than the alpha level of 0.05. These results indicated that there is a need for further studies and that there is a statistical difference in teachers' personality and the success rate of tenth and eleventh grade students based on their TAKS scores. OF the 16 areas in which personality styles were assessed, the most prevalent was *Conscientiousness* which appeared eight times, with an average TAKS score of 2326.27. The next personality styles, which appeared three times each out of the sixteen, were *Agreeableness* with an average TAKS score of 2369.36 and *Openness* with an average TAKS score of 2373.45. The last two personality styles reported were *Neuroticism* and *Extroversion*, which appeared one time each out of the 16. *Neuroticism* had an average TAKS score of 2353.70 while *Extroversion* had an average TAKS score of 2428.15. *Neuroticism* and *Extroversion* show to have high TAKS scores, but they were the least represented teacher personality styles.

Conscientiousness, according to the data, appeared to be most prevalent and according to a prediction by John, Naumann, and Soto, (1991) *Conscientiousness* is a good indicator and general predictor of job performance across a varied range of jobs, but it was found that *Neurotic* individuals have a higher burnout and job dissatisfaction rate. Thompson (n.d.) suggested that further studies need to be done on the effects of a specific group of individuals, based on the influence of the one in charge. The researcher concurred with Thompson (n.d.), in that this study is just the beginning and further studies need to be done to determine what personality trait a group of individuals respond to based on the success rate of a specific aspect. Teachers everywhere are responsible for student success and failures, which often is validated by standardized testing (Lahiri, n.d.). According to the data presented in this study, personality traits

significantly affect others. Further studies need to be done to validate the relationship between the teachers' personality and its effect on student success rates based on standardized testing.

Recommendations for Further Study

As literature showed there have been a limited number of studies done in the area of teachers' personality and its affect on student success. Recommendations for additional research are to replicate the study at a later date utilizing a larger sample population. Replicate the study over a longer period of time to assess the students' success rate based on the teachers he/she has over a period of time. The current study was done utilizing a two year period. It may also be beneficial to study both elementary and secondary students to see if the population reacts differently to teachers' personality based on students' age. The current study assesses tenth and eleventh grade students at the secondary level only. One may even want to consider conducting this study by doing a cross comparison between low performing schools and high performing schools, to determine if teacher personality types differ in those environments.

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