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The relationship of academic indicators and professional disposition to teaching skills: A secondary data analysis

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Abstract

This study compared teaching skill evaluations and professional disposition evaluations for candidates accepted and denied admission to an educator preparation program based upon GPA and testing requirements. The study sought to determine the relationship between academic and non-academic indicators and teaching skills. The data revealed academic indicators of GPA and test scores do not relate to teaching skills. A correlation was found between non-academic indicators, professional dispositions, and the teaching skills evaluation score. The results suggest professional dispositions may be a stronger indicator of success for admission to educator preparation programs and future licensure than GPA and test scores.

Keywords: Teacher Preparation, Professional Dispositions, Licensure Exams, Teacher Licensure, Higher Education Administration, Education Preparation Program

Education preparation programs (EPPs) at institutions of higher education in the United States are under intense scrutiny and must follow strict state and federal standards when preparing candidates for licensure (Tatto, Richmond, & Andrews, 2016). Two of the main requirements for admission to, and exit from, EPPs are a minimum grade point average (GPA) and passing standardized test scores. The North Dakota teacher licensing board, Education Standards and Practices Board (ESPB), requires a candidate to have a cumulative GPA of 2.5 calculated on a 4-point scale and minimum state qualifying test scores on a basic skills exam of reading, writing, and mathematics; a content area test; and pedagogy test—all offered by the Educational Testing Service (ETS). In addition, EPPs at public institutions in North Dakota are accredited by the Council for the Accreditation of Educator Preparation (CAEP). CAEP's mission is to advance "equity and excellence in educator preparation through evidence-based accreditation that assures quality and supports continuous improvement to strengthen P-12 student learning" (CAEP, 2015). CAEP Standard 3.2 focuses on candidates' academic achievement. This standard requires the following:

The provider meets CAEP minimum criteria or the state's minimum criteria for academic achievement, whichever are higher, and gathers disaggregated data on the enrolled candidates whose preparation begins during an academic year. The CAEP minimum criteria

are a grade point average of 3.0 and a group average performance on nationally normed assessments or substantially equivalent state-normed assessments of mathematical, reading, and writing achievement in the top 50 percent of those assessed. (CAEP, 2013)

While the North Dakota requirement of a 2.5 GPA for individuals is lower than the CAEP required 3.0 for the admitted cohort, EPPs need to follow the CAEP standard. CAEP's higher GPA of 3.0 for the cohort may cause EPPs to be more selective and not admit candidates who negatively impact the cohort average, even though they meet the state's 2.5 GPA requirement.

Aside from the required testing and GPA standards, EPPs must also ensure that candidates demonstrate additional selectivity factors beyond academic ability. CAEP's standard 3.3 requires EPPs to evaluate attributes and dispositions beyond academic indicators at admission and throughout a candidate's continuance in the program (CAEP, 2013). The criteria and measurement of the additional qualities are determined by the EPPs. Unlike the testing and GPA requirements, which are mandated by state and federal guidelines, flexibility is given to EPPs for measurement of non-academic factors.

Academic indicators of GPA and test scores are used to filter candidates, but it is unknown if these filters are truly beneficial to programs, candidates, or the workforce. Because programs reject candidates with low GPA and test scores, it is possible that these programs are losing teacher candidates who demonstrate effective teaching behaviors or allowing candidates with fewer teaching skills in the classroom. The purpose of this study is to compare teaching skill evaluations and a professional disposition evaluation for candidates accepted or denied acceptance in an EPP based on the GPA or testing requirements. This study was designed to answer the following questions:

- (1) What relationship do academic indicators, including GPA and test scores, have to teaching skills?
- (2) What relationship does the non-academic indicator of a candidate's disposition score have to teaching skills?

Literature Review

Criteria for admission to four-year universities and EPPs have been widely researched. Decisions for candidate admission are based on several contributing factors, but emphasis is given to GPAs and standardized test scores. It is presumed that the more selective an institution or program is, the more qualified the candidates they will produce (Astin, 1993).

History of Admission Requirements

In 1955, over half of the colleges and universities in the United States had some type of selective admission requirement (Lucas, 2006). However, many colleges and universities do not practice high levels of selective admission, especially open enrollment universities, even though all institutions value a well-prepared candidate (Astin, 1993). In addition to the admission requirements of the university, oftentimes candidates seeking a degree in specialized fields, such as education, encounter additional program admission requirements. Requiring EPP candidates to pass a test or maintain a set cumulative GPA score is not a new practice and can be an additional barrier to program admission. Federal and state guidelines were put in place to hold EPPs accountable and help ensure that graduates applying for licensure would be effective teachers.

According to Pohan and Ward (2011), EPPs in the United States have been critiqued for low entrance and exit requirements, and ultimately not preparing teachers for classroom responsibilities. D'Agostino and Powers (2009) provided a rich historical account for the use of testing. Testing primarily served as a mechanism for safeguarding the public from poor teaching due to mistrust of EPPs and to ensure quality control. Guyton and Farokhi (1987) stated, "The assumption that a strong

relationship exists between academic quality as defined by the use of such variables as GPA, test scores, and basic skills and good teaching are accepted widely” (p. 87). Although the practice of using academic indicators to make judgments of admission and attribution are commonplace, there are limited data on the correlation between passing test scores and cumulative GPA, and effective teaching.

Academic Requirements

Requirements, such as GPA and test scores, typically serve as objective measures for admission. Admissions officers at the university level appreciate the convenience and usefulness GPA and test results provide as indicators for college performance (Thelin, 2004).

Grade point average (GPA). D’Agostino and Powers (2009) found that GPA has a slightly stronger relationship to effective teaching than any type of teacher test. Henry, Campbell, Thompson, Patriarca, Luterbach, Lys, and Covington (2013), and Guyton and Forokhi (1987) also found a positive relationship between upper-level pedagogical coursework GPA and teacher performance based on scores of teacher certification tests. These findings suggest that performance in coursework in the last couple of years of the college experience is related to effectiveness in the classroom. Candidates entering EPPs typically take content and general education coursework in their first two years and gradually move into pedagogically-based courses. The positive relationship between upper-level GPA and teacher performance supports the importance of subject methods-based courses.

Although research has established a positive relationship between GPA and effective teaching, Dee and Morton (2016) found no relationship between low GPA and final clinical practice evaluations when compared to peers with higher GPAs. Furthermore, evidence suggests teachers with higher test scores or GPAs are not necessarily better at facilitating student learning than those with lower scores. In addition to GPA, testing often serves as a measure for admission.

Testing. Standardized testing was originally created as a means for universities to compare candidates in a fair and objective way. Although testing is meant to be objective, scores on standardized exams are inconsistent with GPA or school grades (Pohan & Ward, 2011). Due to this finding, university EPPs that require standardized tests are encouraged to view the score as one piece of the candidate’s academic profile (ETS, 2013). Pohan and Ward (2011) pointed out that colleges of education want a teaching force that is competent in reading and literacy skills, as well as mathematics and other content areas. However, relying on competency testing alone could be insufficient to ensure a highly-qualified teaching candidate and might unwittingly eliminate potentially effective teachers from the pool of candidates. In addition, Goldhaber (2007) noted the following:

States face significant tradeoffs when they require particular performance levels as a precondition to becoming a teacher. Some teachers who we might wish were not in the teacher work force based on their contribution toward student achievement are eligible to teach based on their performance on the tests; other individuals who would be effective teachers are ineligible. (p. 765)

Wilson and Robinson (2012), and Pohan and Ward (2011) warned that standardized tests do not relate to later success in teaching. There is a lack of evidence to suggest that exams are strong predictors of effectiveness in an EPP or K-12 classroom. On the contrary, Goldhaber (2007) found curriculum-based tests have a slight correlation with teacher effectiveness, and licensure tests appear to have some relationship with candidate achievement. Testing bias is also a vast issue, and diverse candidates have a difficult time meeting the requirements set forth by licensing and accreditation bodies. Varying conclusions found in the research raise questions about the importance of other non-academic indicators and tools to evaluate teacher performance.

Non-academic Indicators

Although GPA and testing are the main topics in the discussion of admission requirements for EPPs, research suggests the need for inclusion of other admission criteria. Henry et al. (2013) suggested that teachers need to do more than raise student scores on tests to be effective: “They must establish warm, productive relationships with their students and colleagues. They must provide students with opportunities for active engagement with the content and provide leadership within the classroom, school, and community” (p. 451). National accreditation requires EPPs to monitor attributes and dispositions beyond academic indicators of success at admission and throughout the program (CAEP, 2013).

Garza, Mundy, Varela, Ybarra, and Yuma (2016) recommended using studies that investigate standards of admission and entrance requirements for EPPs to help determine the likelihood of candidate success. D’Agostino and Powers (2009) found that preservice teachers’ performance in college, especially during student teaching, predicted performance much better than standardized teacher tests. Written profiles including information about previous academic success, personal characteristics, employment and training, volunteer or service experience, work with diverse groups, languages spoken, special skills, and leadership roles were a better indicator for success and teacher effectiveness (Casey & Childs, 2011).

A need to develop assessment instruments to measure the performance and progress of teacher candidates was identified by Henry et al. (2013). Chung (2008) completed a case study using teacher performance assessments allowing for reflection in action. She found the use of performance assessments helped promote K-12 learning and higher-level thinking. Chung (2008) stated, “Performance assessments like the teaching event, when thoughtfully implemented, can be useful learning tools to strengthen the professional preparation of new teachers in ways that lead to more learner-centered, assessment-driven teaching” (p. 23). Valid and reliable performance assessments allow EPPs to provide feedback to teacher candidates about strengths and weaknesses related directly to their ability to improve student achievement, identify candidates who need additional instruction or mentoring, redirect low performing candidates into other fields, and track development of candidates’ knowledge, skills, and dispositions as they move through the program. With a variety of findings on the importance of admission standards for EPPs, there is still a question about the relationship that various academic and non-academic factors have to teaching skill evaluations.

Methods

This study was a secondary statistical analysis of academic and non-academic factors for admission and continuance in an EPP. The research approach included the use of descriptive and inferential statistics to determine the relationship academic indicators for program admission (namely, GPA and standardized test scores) and the non-academic indicator of professional teaching disposition have to the teaching skill evaluation score. The raw data used in the dataset had been previously collected by the EPP for program assessment and accreditation; however, the level of scrutiny used in this analysis was not required by the EPP for program evaluation.

Identifying the Dataset

The dataset was representative of candidates enrolled in a beginning methods course, referred to as EDUC 300, for elementary and early childhood majors, in distance and on-campus programs of an EPP at a rural, regional university in the upper Midwest. The university had a total approximate enrollment of 1,150, of which 328 were declared education majors and approximately 100 were admitted to the EPP. The university offered 13 education major programs. The EPP consisted of eight full-time faculty teaching courses in elementary and early childhood education, as well as professional education

courses. The university was accredited by the Higher Learning Commission (HLC) and CAEP. Figure 1 presents the candidate progression through the program of study at the university, which started with admission and essential study coursework, and moved into the first class of the professional field, Introduction to Education. EDUC 300 was taken after the Introduction to Education course and situated at approximately the mid-point of a candidate's time in the program.

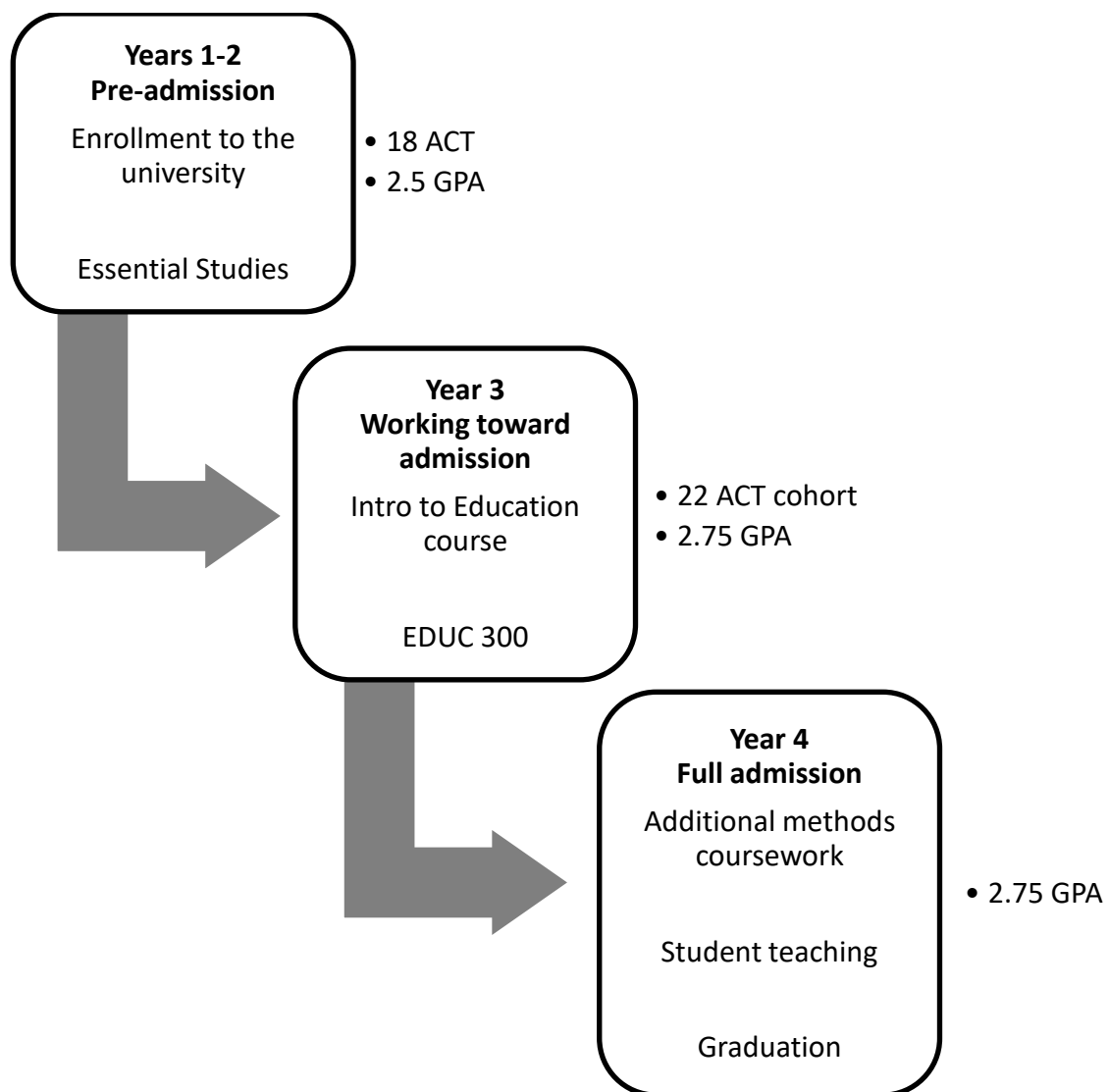


Figure 1. Candidate progression in the program with minimum testing and GPA requirements

Evaluative steps of a secondary analysis were followed to ensure appropriate dataset congruency (Johnston, 2014). The dataset included information on teacher candidates enrolled in EDUC 300 between the spring of 2015 and the fall of 2017. The dataset included 104 candidates, of which 49 were enrolled in distance coursework, 55 completed courses on campus, and 94 candidates were formally admitted to the EPP.

Admission to the EPP typically occurs during a candidate's second year in college and requires a 2.75 cumulative GPA, passing state-required cut scores on the Core Academic Skills for Educators or Praxis I tests, a "C" or better in seven essential studies courses, and a "B" or better in the Introduction to Education course. The EPP admits cohorts of candidates three times a year at the beginning of each

term. Candidates must be admitted to the EPP to take many of the upper-level methods courses. However, candidates are able to enroll in EDUC 300 if they are admitted to the EPP, or if they are in the process of being fully admitted to the EPP.

In addition to the varying enrollment statuses in EDUC 300, the course is offered on campus and at a distance. Distance learners take two methods courses that encompass instructional strategies and reading. Five courses are included in the on-campus EDUC 300 cohort: instructional strategies, reading, state studies, math, and science. The varying EDUC 300 cohort of classes provides more flexibility to distance candidates who are often taking courses, in addition to working full-time jobs and having families.

The primary researcher in this study was also the data manager of the EPP and had access to the original data. Close access to adequate documentation of the original dataset, including protocols and procedures followed, added to the validity of the data collection process (Johnston, 2014).

Academic Indicators

Data including GPA and state exam scores were collected from the EPP's data management system. The EPP used Taskstream, an online program for assessment and accreditation, to collect comprehensive data and create real-time reports, using pre-built templates called Direct Response Folios (DRFs). During the Introduction to Education course, candidates were required to enroll in Taskstream. Once enrolled, candidates were registered in an Admission DRF, and the academic indicators were entered by the EPP's data manager. This primary method of data collection was used to gather data for admission and continuance in the EPP.

GPA.

Candidates were required to have a cumulative GPA of 2.75 for entrance into the EPP; this is higher than the state requirement of 2.5. Cumulative GPA was calculated using all coursework in the candidate's undergraduate course history. The ND ESPB allowed candidates, who do not meet the required 2.75 GPA, to have their GPA calculated using only specific courses required for an education degree in an EPP. This hand calculation allowed candidates who changed career paths to enroll in EPPs with the possibility of licensure (ESPB, 2017). If the cumulative GPA did not meet the desired 2.75 mark at the time of program admission, the data manager for the EPP determined whether or not the candidate was eligible for the hand-calculation process. If the candidate was eligible, the hand-calculated GPA was used to allow entrance into admission-required coursework. Candidate GPA was entered into Taskstream at the time of admission to the program and monitored throughout continuance in the program.

The GPA was required to remain above the 2.75 level. Although the state-required GPA was a 2.5 and program GPA was 2.75, CAEP Standard 3.2 required the EPP to have an admission cohort GPA of 3.0 or higher (CAEP, 2013).

State licensure exams.

In the dataset, 14 candidates took the Praxis I test, and 93 candidates took the Core Academic Skills for Educators test. The Praxis I transitioned to the Core Academic Skills test in 2013. In order to pass either test, a candidate must receive state-required cut scores. Although the test name changed, the goal remained the same: to provide a comprehensive assessment and measure foundational core academic competencies of candidates entering EPPs. Tests are designed to be comprehensive and inclusive in testing knowledge, but they do not measure skills or an individual's disposition towards teaching as indicators of potential for success (ETS, 2017).

Candidates independently registered and paid for the test during the Introduction to Education course

on the ETS website. At the time of registration, candidates selected an ETS-identified testing center, date, and the EPP as a score recipient. Approximately three weeks after the test was taken, scores were automatically sent via email from the testing company to the data manager in weekly score reports. Scores were then entered directly into the admission DRF for each candidate by EPP personnel. Candidates received email notification of the entered scores and were able to immediately view them in the system. Yearly, the EPP reconciled scores recorded in Taskstream with the federal Title II report to ensure accuracy. Candidates were allowed to take the tests until successful completion. The EPP did not limit the number of attempts.

Non-academic Indicators

Taskstream also allowed the EPP to track non-academic required evaluation scores through the EPP's assessment process. The EPP gathered assessment and accreditation data, including evaluations that measure Interstate Teacher Assessment and Support Consortium (InTASC) standards and critical dispositions at multiple checkpoints throughout a candidate's time in the program. Candidate evaluation data were entered by course faculty in the evaluation DRF located in Taskstream. Faculty members signed into Taskstream using personal login information and completed assigned evaluations for each candidate enrolled in a course designated by the EPP requiring an assessment. In EDUC 300, faculty members assessed candidate performance during peer teaching activities and prescribed field experiences using the Teacher Candidate Skills (TCS) evaluation and critical disposition evaluation.

Dispositions.

The Council of Chief State School Officers (2013) advocates for evaluating dispositions, defined as the "socio-emotional skills or behaviors that associate with success in college, career and citizenship" (p. 6). To meet this requirement, faculty in the EPP developed a 19-item disposition evaluation to measure important attributes defined by the CCSSO (2013), including values, commitments, and ethics influencing behaviors toward students, families, colleagues, and communities. The items evaluated on the disposition document were aligned with the InTASC standards. Candidates were scored on a 4-point scale, rating the candidate as distinguished, proficient, basic, or unsatisfactory. In EDUC 300, the course instructors were required to complete the disposition evaluation at the end of the semester. Prior to fall 2016, candidates in the distance program were evaluated by one faculty member who taught both methods courses in the EDUC 300 cohort. Beginning fall 2016, two faculty members were assigned teaching responsibilities in the distance EDUC 300 cohort. On campus, five faculty members completed the disposition evaluation of each candidate.

Candidate evaluations were completed by faculty prior to the last day of finals during the semester of enrollment. Once all evaluation data was completed, the data manager for the EPP reconciled each candidate's disposition evaluations using the reconciliation software specific to Taskstream. The reconciliation process averages faculty members' ratings to provide a final score. Candidates were able to view their evaluation scores in the DRF.

Teacher candidate skills (TCS) evaluation.

The TCS evaluation was based on the InTASC professional practice standards and was created to be used for the evaluation of teaching competencies throughout a teacher's career (CCSSO, 2013). EPP faculty reviewed the standards provided and worked in teams to deconstruct each standard in order to create the TCS evaluation of 166 separate constructs to be demonstrated at the culmination of a candidate's experience in the EPP.

Team members carried out Lawshe's method for content validity for the TCS (Lawshe, 1975). It was found that 96 of 166 items on the full evaluation had content validity at the initial licensure level. In

addition to Lawshe's method of content validity, the EPP took into consideration the developmental progressions in the sophistication of teaching practice to support the development of teaching competencies (CCSSO, 2013). Faculty teams used the newly-gathered information to create the 19-construct TCS evaluation expected at the beginning of a candidate's experience and used in EDUC 300. The evaluation was scored on a 4-point scale, rating the candidate as distinguished, proficient, basic, or unsatisfactory. The process for faculty members to complete the TCS evaluation was comparable to the process used to complete the disposition evaluation.

Procedures

Data were tracked in Taskstream for five semesters, from the spring of 2015 to the fall of 2017, at the time of course enrollment and intended program admission. Data were obtained for the secondary analysis of data from the system by the data manager in the spring of 2018. GPA, test scores, and admission dates were collected from the admission DRF, and the TCS evaluation score and disposition score were collected from the evaluation DRF. Class rosters were collected for EDUC 300 courses for each semester. An Excel spreadsheet was created and provided the semester of enrollment, a distinction between on-campus or distance, a date of admission, GPA, test scores, TCS evaluation score, and disposition score. After the spreadsheet was repopulated to meet the needs of the current project, descriptive and inferential statistical analyses were used.

Results

Descriptive statistical results included calculations of GPA, test scores, professional disposition scores, and the TCS evaluation score for the overall dataset (see Table 1). Further analyses were completed with a focus on semester cohorts, candidates taking courses on campus, and distance learners to allow for comparative results. The mean and range for GPA and test scores were calculated, along with the mean score of the professional disposition evaluation and the TCS evaluation to support a comparative analysis of academic factors and professional dispositions, as they relate to teaching performance.

Table 1
Summary information of teacher candidates enrolled in EDUC 300

Candidate Groups	<i>n</i>	Cohort GPA	GPA Range	Praxis 1 Test % Pass Rate	CORE Test % Pass Rate	Mean TCS Score	Mean Disposition Score
Combined Semesters Total							
D	49	3.28	2.41-4.00	100 (<i>n</i> =4)	95.6 (<i>n</i> =45)	2.48	2.80
OC	55	3.43	2.64-4.00	90 (<i>n</i> =10)	88.9 (<i>n</i> =45)	2.74	3.10
A	94	3.39	2.75-4.00	100 (<i>n</i> =13)	100 (<i>n</i> =81)	2.61	2.96
N-A	10	3.05	2.41-3.76	0 (<i>n</i> =1)	22.2 (<i>n</i> =9)	2.69	2.91
Spring 2017							
D	0						
OC	8	3.46	2.64-3.86		100 (<i>n</i> =8)	2.77	3.05
A	7						
Fall 2017							
D	8	3.29	2.41-4.00		92 (<i>n</i> = 25)	2.78	3.02
OC	25	3.52	2.85-3.94		87.5 (<i>n</i> = 8)	2.88	3.19
A	29						
Total	33	3.35	2.41-4.00		90.9 (<i>n</i> =33)	2.81	3.06
Spring 2016							
D	0						
OC	10	3.49	2.94-3.96	100 (<i>n</i> =2)	100 (<i>n</i> =8)	2.8	3.18
A	10						
Fall 2016							
D	12	3.25	2.80-3.77		100 (<i>n</i> =12)	2.29	2.49
OC	11	3.27	2.79-3.95		72.7 (<i>n</i> =11)	2.80	3.08
A	20						
Total	23	3.26	2.76-3.95		87 (<i>n</i> =23)	2.53	2.77
Spring 2015							
D	0						
OC	9	3.48	2.89-4.00	87.5 (<i>n</i> =8)	100 (<i>n</i> =1)	2.56	3.02
A	8						
Fall 2015							
D	12	3.29	2.76-4.00	100 (<i>n</i> =4)	100 (<i>n</i> =8)	2.05	2.68
OC	9	3.37	2.80-3.88		88.9 (<i>n</i> =9)	2.62	3.08
A	20						
Total	21	3.32	2.76-4.00	80 (<i>n</i> =5)	94 (<i>n</i> =16)	2.29	2.85

Note: D=Distance; OC=On Campus; A=Admitted; N-A=Not Admitted; Total=Overall total for all candidate groups for that semester.

A multiple regression analysis was performed to assess the relationship between the variables of interest: GPA, standardized test scores, and professional disposition, and the TCS evaluation score. When completing the analysis of variance, the p-value was <.001, which indicated there was sufficient evidence to suggest at least one of the independent variables had a statistically significant linear relationship with the dependent variable. Individual p-value scores of each independent variable revealed the only value less than the alpha value of .05 was the professional disposition (see Table 2). This suggests the professional disposition had a statistically linear relationship with the TCS evaluation.

In addition, the professional disposition had a parameter estimate of 0.80622 indicating that for every one unit increase in the disposition score, the TCS evaluation score increased by 0.80622.

Table 2

Parameter Estimates for Relations Between Academic and Non-Academic Indicators

Variable	df	Parameter Estimate	SE	t	Pr > t
Intercept	1	0.83476	0.37287	2.24	0.0274
Disposition	1	0.80622	0.07131	11.31	<.0001
GPA	1	-0.03630	0.05605	-0.65	0.5187
Test Scores	1	-0.00086002	0.00075374	-1.14	0.2566
Admitted	1	-0.06885	0.07615	-0.90	0.3681
Location	1	0.02317	0.04565	0.51	0.6129

Pearson Correlation Coefficients were calculated to measure the linear relationship between the independent variables and the dependent variable. See Table 3 for the results. Values ranging between 0.3 and 0.7 suggested a moderate positive linear relationship and values greater than 0.7 suggested a strong positive linear relationship. The value of 0.18994 suggested a weak linear relationship between GPA and the TCS evaluation. On the contrary, the correlation coefficient of 0.78754 indicated a strong relationship between disposition and TCS evaluation score. The score of 0.04191 indicated that there was nearly no linear relationship between test scores and the TCS evaluation score. In addition, further analysis showed that GPA had weak linear relationships with test scores and disposition score.

Table 3

Correlation Coefficients for Relations Between Four Measures of Academic and Non-Academic Indicators

Measure	1	2	3	4
1. TCS Eval	—	.189	.787	.041
2. GPA	.189	—	.330	.292
3. Disposition	.787	.330	—	.193
4. Test Scores	.041	.292	.193	—

Discussion

The data showed the academic indicators of GPA and test scores do not correlate with higher scores on the institution-used TCS evaluation measuring teaching skills. Rather, a stronger correlation of the non-academic indicator, professional disposition, and the TCS evaluation score suggests a greater emphasis needs to be placed on CAEP 3.3, which focuses on attributes and dispositions beyond academic ability. A test is taken on one day in a candidate's career, and GPA calculations are subjective, dependent upon the person grading the course assignments. A stronger focus on those inherent quality character traits may be the better filter and a stronger indicator of success for admission to EPPs and future licensure than GPA and test scores.

Guyton and Farokhi (1987) pointed out that there is an assumption of a strong relationship between academic quality and good teaching. The results of this secondary data analysis are inconsistent with their assumption and indicate the only statistical linear relationship between the TCS evaluation score and the other indicators is with the professional disposition. The results of the analysis are also consistent with research by Casey and Childs (2011), who found that personal characteristics, volunteer experience, work with diverse groups, and other similar attributes were better indicators of teacher effectiveness. The professional disposition used in this secondary data analysis measured similar attributes and was found to have a strong linear relationship with the TCS evaluation score.

Wilson and Robinson (2012), and Pohan and Ward (2011) warned that standardized testing does not relate to future success in the classroom. Data analysis in this study supports this conclusion and found no correlation between test scores and TCS evaluation scores. In addition, Dee and Morton (2016) found no relationship between academic GPA and final performance in clinical practice evaluations, and the results of this study provide supporting evidence with no correlation between GPA and TCS evaluation scores.

D'Agostino and Powers (2009) found that GPA has a slightly stronger relationship to effective teaching than any type of teacher test, and, again, this study provides supporting evidence. Test scores yielded nearly no correlation to the TCS evaluation with a coefficient value of .04191, while GPA yielded a weak correlation with a coefficient value of .18994. Although the GPA to TCS relationship is weak, this evidence suggests GPA may be a better indicator than test scores.

Conclusion and Recommendations

This secondary data analysis investigated the relationship between the academic indicators of GPA and test scores and the non-academic indicator of professional disposition to teaching skills. Data analysis showed no statistical correlation between the academic indicators and teaching skills. However, there was a correlation between candidate disposition and the TCS evaluation score. The evidence provides EPPs and accrediting bodies with additional evidence of the importance of revisiting requirements for admission to programs and future teacher licensure. Although the academic qualities of a teacher are extremely important, the results of this study suggest adding a stronger focus to a candidate's disposition as noted in CAEP Standard 3.3.

This study has some limitations. First, the secondary analysis of data involved a limited number of candidates in an elementary and early childhood program at a small university. Second, the internal validity of the TCS evaluation may be questioned as evaluators completing the tool may not have reviewed candidate performances with the same expectation. Finally, the number of reconciled evaluations differed, depending on the location of the candidate. As such, the results may not generalize to other programs.

The results do provide the EPP with necessary information for program improvement. Although the CAEP standards and the licensure requirements cannot be changed, the EPP can explore the use of candidate interviews and disposition evaluations as criteria for program admission. In addition, the TCS evaluation tool has been primarily used as a formative assessment throughout the program. In this process of program improvement, the EPP may choose to explore different summative options such as the validated, state-wide student teacher observation tool. The implementation of this valid, state-used tool will not only help eliminate the limitation of the tool validity, but it will also create a bigger dataset for the possibility of future research.

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