

Perception of Satisfaction in a CTE Teacher Preparation Program

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Abstract

Teacher Preparation Programs (TPP) are focused on preparing quality and effective classroom teachers and have long been regulated by federal and state governments. Most recently regulations dealing with program accountability have been developed to ensure graduates of TPP's have the skill and knowledge to increase student learning. This longitudinal study examined the perception teacher satisfaction of their Career and Technical Education (CTE) teacher preparation program after five or less years of teaching compared to their perception of their teacher preparation program before professional teaching experience. The findings of this study concluded that the satisfaction of program graduates and post-graduate program is there is not a statically significant difference. However, the high level of program satisfaction reported suggested graduates and post-graduates of this Career and Technical Education program area are satisfied with the quality of education. This study also investigated the relationship of graduates' perceptions of program quality to teacher retention and the findings revealed there was not a significant relation between the satisfactions of program completers that are employed to those not employed as a teacher. An important recommendation of this study supports the development of systematic evaluation procedures and the use of evidence-based evaluations to support program improvements.

Introduction

Teacher Preparation Programs (TPP) in the United States have a long historical presence dating back to 1823 when Samuel Read Hall started the first public normal school in Concord, VT which was aimed at preparing teachers with formal training in pedagogy. By 1850, there were seven normal schools in the United States spanning Massachusetts, New York, Pennsylvania, Connecticut, and Michigan (Wright, 1930). Then in the early twentieth century, normal schools began to transition into teacher colleges, then to state colleges, and finally to state universities. This transitional time was driven by the public's demand for more teachers and serves as an early indication of the struggle within the confines of the educational system between the quantity and quality of teachers (Labaree, 2008).

Few will argue about the importance of a quality classroom teacher and perhaps it can be the most important factor of student learning and growth. The release of *A Nation at Risk* by the National Commission on Excellence (1983) sounded the alarm regarding teacher quality fearing that "the educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people" (p.

9). Key findings indicate, “not enough of the academically able students are being attracted to teaching; that teacher preparation programs need substantial improvement; that the professional working life of teachers is on the whole unacceptable; and that a serious shortage of teachers exists in key fields” (National Commission on Excellence, 1983, p. 20). Since this time, numerous accountability initiatives and programs have focused on improving the quality of teachers. Yet over two decades later teacher quality at all levels of education remains a major concern.

The challenge with preparing quality classroom teachers is further complicated with the growing teacher shortage. For the 2018-2019 school year, the teacher shortage is being described as “education in crisis” (Picchi, 2018). There has been a decline in high school graduates interested in the teaching profession (ACT, 2015, p. 3) and a decline in college students pursuing a degree in teaching (U.S. Department of Education, 2015, p. 5).

Looking at the teacher shortage on a national level, Startz (2015) surprisingly reported the number of bachelor and master degrees awarded in education are two or three times more than the number of new teacher hires (para. 3). Contradicting the national findings, many states have serious concerns about the teacher shortages affecting their school districts. There are varying factors that influence the teacher shortage within states. Aragon (2016) identified states with teacher shortages as having limitations governed by educational policies, having teacher shortages in certain subject areas, and having teacher shortages in urban, rural, and high-poverty, high-minority, and low achieving schools (p. 5).

Teacher preparation programs (TPP) are concerned with preparing quality and effective classroom teachers. All states require graduates of TPP’s meet the minimum standards for certification and is one form of program accountability. Other accountability measures may include scores from standardized content tests or edTPA, among others. While teacher performance is the most popular measure of program accountability, there is also value in obtaining data from graduates’ perception of program quality. Bastian, Sun and Lynn (2017) stated, “surveys of teacher preparation program graduates are becoming an important measure of quality for program evaluation, accreditation, and improvements” and “may be an important contributor to data-driven program accountability” (p. 1). This study surveyed TPP graduates’ in one specialized area of Career and Technical Education. Career and Technical Education prepares all learners for the “world of work by introducing them to workplace competencies, and makes academic content accessible to students by providing it in a hands-on context” (Advance CTE, 2019, para. 1). This longitudinal study investigated the following research questions:

1. What is the perception of teacher satisfaction of their teacher preparation programs after five or less years of teaching compared to their perception of their teacher preparation program before teaching experience?
2. What is the relationship of graduates’ perceptions of program quality to teacher retention?

The null hypothesis for research question 2 is that there is no relationship between graduates’ perceptions of program quality and teacher retention.

Literature Review

There is an underlying connection between teacher preparation, quality teaching, and student success. Teachers in their first-year of teaching, experience a significant number of situations that contribute to their satisfaction with the quality of their teaching experience. Supporting this ideology, Carver-Thomas and Darling-Hammond (2017) specifically identified teachers that have taken 10 or more courses in teaching methods were more likely to report feeling well prepared or very well prepared to handle a variety of teaching responsibilities in their first year (p. 26). There is significant research on teacher satisfaction and outline a number of variables that can be of direct influenced. For example, Ingersoll (2012) identified, “that most of the studies that looked at the effect on teachers’ job satisfaction, commitment, and retention found positive effects on beginning teachers who participated in some kind of induction” (p. 51). In another study, Carver-Thomas, Darling-Hammond (2017) reported, “among the two-thirds who leave for reasons of dissatisfaction cite concerns with school administrators, lack of influence on school decision-making, and school conditions” (p. 6). Induction participation, school administration, decision-making, and school conditions, among others are just a few of the variables that can effect teacher satisfaction.

Teacher preparation programs (TPP) are designed to prepare teachers for the rigor of today’s classroom and are closely regulated by the U.S. Department of Education to ensure that new teachers have the skill and knowledge to succeed. In 2015, the U.S. Department of Education published regulations that brought transparency to the effectiveness of TPP’s and provided programs with improvement feedback. The new regulations required individual states to report beyond the basic requirements of the Higher Education Act with a specific outcome requiring feedback from graduates and their employers on the effectiveness of program preparation (U.S. Department of Education, 2015).

TPP’s evaluations may use different measures that are not easily computable and often “a combination of input and output measures forms the basis for a variety of inferences – findings and interpretations – about the quality of TPP programs” (Feuer, Floden, Chudowsky, & Ahn, 2013, p. 2). A common output of higher education institution measures are results from surveys administered to program completers, first-year graduates, and post-graduates. Survey of graduates assess their rating of the program and their perception on teaching preparedness. An advantage to collecting program data using surveys is that it provides a large amount of data at a minimal cost and the results of the data can easily be used to compare results between programs and cohorts (Worrell, et al., 2014). There is also value in surveying program graduates that are first-year teachers and program graduates that have several years of developing their teaching practice. Graduates can provide, “feedback on how prepared they felt by many key aspects of their teacher preparation program for their role, now that they are actually in the field” (Worrell et al., 2014, p. 25).

The use of surveys for TPP evaluation are not without disadvantages. Coggshall, Bivona, and Reschly (2012) reported surveys are subject to bias and rely heavily on perception rather than reality. They have also cited the timeliness of distributing the survey and response rate as a weakness of this evaluation instrument (p.41). Yet another concern from The National Research Council (2010) stated that not all TPP's are held to the same state standards with inconsistent standards and licensure requirements. Without the use of a common survey used by all TPP's within or across states, it is impossible to compare programs based on survey results. The National Council for Accreditation of Teacher Education (2010) recommended that all TPP's be "held to same standards; data-driven accountability based on measures of candidate performance and student achievement, including gains in standardized test scores. Data drives reform and continuous improvement" (p.12).

The value-added model is an outcome measure focused on measuring a teacher's contribution to growth in student achievement. "The basic premise of all value-added assessment of TPPs is that variance in K-12 student gains on standardized achievement tests can be attributed to the quality of teacher training a teacher received when other variables are controlled or adjusted" (Evans & Lee, 2016, p. 2). The greatest strength of the value-added model is that it provides a common metric to compare programs; however, it does not provide recommended actions for program improvements (Coggshall, Bivona, & Reschly, 2012, p. 12). Evans and Lee (2016) concluded, "because value-added estimates of TPP effects are not completely accurate or unbiased it is difficult, if not impossible, to base decisions about programme quality or teacher candidate quality on value-added estimates" (p. 15).

Essentially, the literature regarding evaluating TPP's supports the use of a broad set of inputs and outcomes to make comprehensive program evaluation. Bastian, Patterson, and Pan (2017) stated, "there is no consensus regarding the teacher experience levels or the school-level/licensure are breakdowns to include the TPP evaluation systems" (p. 431). The intended use of the survey evaluation tool for this study was focused on identifying the program's strengths and weaknesses to guide improvements and positive change. This study contributes to the literature by narrowing the focus to a specific licensure area within Career and Technical Education rather than all institutional teacher preparation graduates.

Method

This study focused on the perception of teacher satisfaction of their teacher preparation programs (TPP) after five or less years of teaching compared to their perception of their teacher preparation program before their teaching experience. In addition, this study investigated if there is a relationship between graduates' perceptions of program quality to teacher retention. This study followed a longitudinal method.

Population. The population of this study included graduates from a Midwest university TPP in a specified licensure area within Career and Technical Education. The first phase

consisted of surveying all graduates at the completion of their licensure program from fall 2008 – fall 2012. In spring 2013, the same graduates from the 2008 - 2012 timeframe were administered the same survey. The second phase consisted of surveying all graduates at the completion of their licensure program from fall 2013 – fall 2017. In spring 2018, the same graduates from the 2013 – 2017 timeframe were administered the same survey.

A total of 71 graduates participated in the survey completion from 2008 – 2012 with a response rate of 34.5 % or 41 alumni completing the survey in spring 2013. A total of 46 graduates participated in the survey completion from 2013 – 2017 with a response rate of 30.4% or 14 alumni completing the survey in spring 2017. The *N* value represents the total number of program graduates completing the survey. The overall response rates are presented in Table 1.

Table 1
Survey Completion Response Rates

Participants	<i>N</i>	Number of Participants Completing Alumni Survey	Percentage of Alumni Responses
2008 - 2012	71	41	34.5
2013 - 2017	46	14	30.4
Total Number of Participants	117	55	

Survey Instrument. The TPP survey included a series of open-ended questions that captured the semester and year the participant completed the program; if the participant is currently teaching in the licensure content area; if not teaching how many years did they stay in the profession and the reason for leaving. A four-point Likert Scale was used as the rating for the following questions:

1. Overall, how relevant did you find the course materials in regards to your initial teaching experience?
2. Overall, how effective did you find the methodology used in the delivery of your program courses?
3. Overall, how would you rate the quality of the program course content?
4. Overall, how do you feel about the quality of preparation you received as a beginning teacher?

The TPP survey was developed in 2008 by program faculty as a way to capture the perception of student satisfaction of their teacher preparation program. Cronbach’s alpha was used to measure the scale of reliability for the four survey questions used in this study. A reliability analysis was carried out on the perceived task values scale comprising of four items. Cronbach’s alpha showed the questionnaire to reach acceptable reliability, $\alpha = 0.85$.

The TPP survey questions structured in this study were directly aligned to the content-related evidence of validity. Specifically the questions of the survey are representative of the target construct of identifying the difference in perception of teacher satisfaction of a TPP after five or less years of teaching compared to their perception of their teacher preparation program before their student teaching experience.

Results

This study investigated the perception of teacher satisfaction of their TPP after five or less years of teaching compared to their perception of their TPP before teaching experience and if there a relationship of graduates’ perceptions of program quality to teacher retention.

Results Research Question 1. What is the perception of teacher satisfaction of their TPP after five or less years of teaching compared to their perception of their teacher preparation program before teaching experience? The results are based on participants that answered all four survey questions. Partially completed surveys were excluded from these results. The Mann-Whitney U Test was used to compare teacher program satisfaction of program graduates to teacher program satisfaction of post-graduate teachers with five or less years of teaching experience. The Mann-Whitney U Test is a nonparametric test that does not require the assumptions of normal distributions. The mean rank and the sum of ranks for the two groups is presented in Table 2.

Table 2
Mann-Whitney Test Ranks for Program Satisfaction

Group	N	Mean Rank	Sum of Ranks
2008-2012 Graduates	59	42.32	2497
2012 Post-Graduates	27	46.07	1244
2013–2017 Graduates	34	22.57	767.5
2017 Post-Graduates	8	16.94	135.5

2008-2017 Graduates	93	65.04	6049
2012 and 2017 Post-Graduates	35	63.06	2207

The results of Table 2 indicate varying satisfaction results. Comparison of the 2008 – 2012 program graduates mean rank of 42.32 and the 2012 post-gradates mean rank of 46.07, the post-graduates had the higher mean rank. Comparison of the 2013 – 2017 program graduates mean rank of 22.57 and the 2017 post-graduate mean rank of 16.94, the program graduates had the higher mean rank. Comparison of the 2008 – 2017 program graduates mean rank of 65.04 and the post-graduates mean rank of 63.06, the program graduates had the higher mean rank.

The actual significance values of the test are presented in Table 3.

Table 3
Mann-Whitney U Test Statistics

	Program Satisfaction Between 2008-2012 Program Graduates and 2012 Post- Graduates	Program Satisfaction Between 2013- 2017 Program Graduates and 2017 Post- Graduates	Program Satisfaction Between 2008- 2017 Program Graduates and 2012 and 2017 Post-Graduates
Mann-Whitney U	727	99.5	1577
Z	-0.642	1.153	0.267
p-value	.522	.250	.787

From this data, it can be concluded that the results from all comparisons of program graduates and post-graduate program satisfaction is that there is no statically significant difference of program satisfaction at $p < .05$.

Results Research Question 2. Is there a relationship of graduates’ perceptions of program quality to teacher retention? The results of the status of employment survey responses are presented in Table 4.

Table 4
Number of Program Completers Employed as a Teacher

Employment Status	High Level of Program Satisfaction	Low Level of Program Satisfaction	Chi-square Totals
Employed as a Teacher	28	2	0.03
Not Employed as a Teacher	4	0	0.25
Total Participants	32	2	0.28

A chi-square test of independence was performed to examine the relation between the satisfactions of program completers that are employed to those not employed as a teacher. The relation between these variables was not significant, $X^2 (1, N = 34) = 3.841, p < .05$. Therefore the null hypothesis is not rejected that program satisfaction and retention in the field of teaching are independent.

Discussion

Quality teacher preparation programs (TPP) have long been concerned with developing graduates that can demonstrate positive student learning gains. Recently attention has been given to the effectiveness of TPP’s, specifically how teacher preparation programs ensure they are preparing effective teachers. Worrell, et al., (2014) noted, “surveys can be very useful as a program evaluation tool with former teacher candidates” (p. 25) this aligns with federal regulations to require feedback from graduates on the effectiveness of program preparation. While this study did not reveal a significant difference in TPP satisfaction between program graduates and post-graduate students with five or less years of experience, the high level of program satisfaction reported suggest graduates and post-

graduates of this Career and Technical Education program area are satisfied with the quality of education.

This longitudinal study focused on one evaluation instrument to identify program satisfaction, but failed to address the impact on student learning. The development of a comprehensive survey that incorporates the value-added model would provide data that measures the impact on student achievement. Currently, value-added models are the only approach to “judge teacher preparation programs quality based in the effectiveness of their graduates in producing growth in student achievement” (Feuer et al., 2013, p. 36). Data collected from value-added models would provide another means for determining the necessary program improvements.

This study also investigated the relationship of graduates’ perceptions of program quality to teacher retention. While the findings of this study did not show a significant relationship between TPP’s satisfaction and retention, the literature suggests there is an association. Feuer et al., (2013) found that the perception of preparation programs are modestly associated with the effectiveness and retention of first and second-year teachers” and “suggest that, on average, those who feel better prepared to teach are more effective and more likely to remain in teaching” (p.24). DeAngelis, Wall, and Che (2013) also found, “a direct association between new teachers’ perception of preservice preparation quality and their intentions to remain in their current school and in the profession” (p. 350). While this study did reveal that a large number of graduates (87.5%) of this Career and Technical licensure program remained in the profession, it can be concluded that graduates are satisfied with this TPP. However, to further study the relationship between graduates’ perception of program quality and retention it is more important to look at the induction supports offered to new teachers. Ingersoll (2012) revealed induction has a positive effect. It is unknown in this study if induction practices influenced the retention of teachers, however, analysis of this data could provide valuable insight to the influence induction or mentorships have on the perception of program quality in TPP’s.

Recommendations

This study is important because it brings attention to the importance of collecting and analyzing data to improve teacher preparation programs. TPP’s must develop systematic evaluation procedures that meet state and federal accountability regulations, but, perhaps more importantly; these evidence-based evaluations should provide the necessary data to support program improvements. It is recommended and support by the literature that evaluation procedures use a variety of assessments consisting of both inputs and outputs and consideration be given to evaluations that incorporate value-added models. Equally important, post-graduate surveys can provide valuable feedback regarding the influence of induction program during the first few years of teaching, because of this it is recommended that evaluation instruments used to survey post-graduates include questions to collect data on supports used during the first few years of teaching. These

recommendations support the ultimate goal of TPP's to prepare quality, effective teachers that can positively affect student learning.

Conclusion

Teacher preparation programs (TPP) have long prepared effective and quality classroom teachers. There has been a lack of interest to enter the teaching profession causing many states to have concerns about filling teaching positions in urban, rural, high-poverty, high-minority, and low-achieving schools, and even in certain subject areas. In efforts to provide transparency to the effectiveness of TPP's federal and state regulations require a greater degree of TPP accountability. This longitudinal study compared the perception of teacher satisfaction of their TPP between program graduates of a Career and Technical Education licensure area to the same graduates after five or less years of teaching. This study also investigated the relationship of graduates' perceptions of program quality to teacher retention. This finding of this study concluded no statistically significant difference in perception of program satisfaction between program graduate and post-graduates, but the data does suggest a high level of satisfaction of program graduates and post-graduates with five or less years of teaching experience. In addition, the findings of this study concluded no significant relationship between the satisfactions of program completers of those employed as a teacher to those who have left the teaching profession.

Given the strong focus on evaluation of TPP's and the results of the literature review it is appropriate to survey program graduates and post-graduate program completers; however, collecting only the perceptions of program satisfaction are subject to bias. To strengthen the evaluation data it is recommended TPP's include evidence-based evaluations such as value-added models in questionnaires. Further research is needed on how TPP's influence the performance of graduates in relation to greater gains in student learning.

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