Determining program impact through research and self-study with teacher candidates

Abstract

Teacher education programs are required by accreditation agencies to measure our effectiveness by evaluating the professional knowledge, skills and disposition of our program completers and to measure the completers’ impact on P-12 students’ learning and development. In an innovative twist and taking a more democratic and scholarly approach, we conducted our self-study by engaging two of our current graduate teacher candidates in a qualitative research study on program impact. They collected data from program completers through focused interviews, classroom observations and employer surveys. Results highlighted the key strengths of our program and underscored areas for improvement. Conducting this self-study as a research project with teacher candidates brought in hitherto overlooked perspectives in our discovery of our worth.

Objectives

CAEP (Council for the Accreditation of Educator Preparation) Standards require educator preparation programs (EPP) to measure the impact of their programs by evaluating the effectiveness of their program completers in their P-12 classrooms. How well the completers perform directly impacts the growth and development of the P-12 students and also stands as strong testimony of the effectiveness of the EPP’s teacher preparation program. These standards help enforce accountability, guide program improvement and ultimately lead to better schools. Most EPPs attempt to address this CAEP standard through surveys of completers but have been affected by poor return rate. Surveys are also subjective by nature and results are therefore not always dependable. Surveys of completers are also a linear and closed line of inquiry with little room for digging deep or for simultaneous or consistent triangulation of data. In an innovative twist, and pursuing a more democratic and scholarly approach, we conducted our self-study as a research study involving both our program completers and our current teacher candidates.

Our primary objective was to engage in self-study through qualitative research methodologies. We aimed to use three sources of data to determine key trends/results that would inform our program revisions. A secondary objective was to demonstrate a new and viable method of self-study. Involving teacher candidates in research about the teacher preparation program is not a common occurrence and our efforts underscored the feasibility and the viability of this self-study practice.

Perspectives and Research Review

Our proposal and the research therein stem from the principal objective to consider an innovative and democratic approach to teacher education, (Zeichner, Payne, & Brayko, 2015). These approaches call for shaking the boundaries that structure EPP’s work and to engage in a collaborative model that pulls in diverse voices (Bavonese, Connor, Valerie, Beard, & O’wens, 2017). We accept the complexity of this effort and follow the tripartite outlook prescribed by prior research (Diez, 2010), and as described above. Our analyses and determination of trends underscore the deep connections between and within clinical practices (Heafner, McIntyre, & Spooner, 2014). Finally, by engaging teacher candidates as research assistants, we were able to address the attitudes and beliefs of pre-service teachers as they affect their own learning (Nuttall, 2016; Thomas, 2014; Yeh & Santagata, 2015).

Methods

Identification of program completers: Our first step was to create a list of our program completers who had graduated from our programs at least three to five years back. From this pool, select completers from each of our programs (early childhood, elementary, secondary and physical education) were identified. Selection was based on availability, employment in a diverse location, or diversity of completers. Everyone in this selected pool was contacted via email to participate in the study. While initially many completers agreed to participate in the study, only 4 (one each from each of our programs) were finally able to complete all aspects of the study. Most others were either unavailable or did not respond.

Research assistants: Two current teacher education candidates served as research assistants in this study. These two candidates, incidentally Holmes Scholars, were mentored by teacher education faculty on the rigors of research protocols, including various forms of data collection and trends analyses. They conducted the two-step interviews of completers (see below), completed classroom observations and asked the employer of the completers to complete a survey of effectiveness. Once the data had been collected and pooled, the research assistants independently identified key trends.

Data and Data Analyses: Data for this research comprised of 1) a two-step interview process using the Seidman model, followed by 2) a classroom observation, and 3) an employer survey. Measurement of program impact was based off our EPP’s Candidate Learning Outcomes (CLO). Our CLOs are structured around four major domains: Intentional Teaching, Data Literacy, Cultural Competence and Professional Practice. A series of questions were developed to align to each of these domains with the intention of first eliciting the completers’ awareness of these domains (interview step 1) and later determining the completers’ application of these domains (interview step 2). In the follow-up classroom observation, select items from our student teaching evaluation instrument that focused on these four domains were utilized to guide our observations and to document anecdotal records. The employer survey followed a similar protocol asking the employers to rate our completers (their employees) on the extent to which they showed awareness and application of the four domains of our CLOs. Analyses of data included determination of trends independently by each of the research assistants and the teacher educators, followed by determination of corroborating data and member checking.

Results

Program effectiveness: Our educator preparation program has identified four learning outcomes for our programs (see above). Of these four, both Intentional Teaching and Cultural Competence ranked high in terms of awareness across all the program completers. Almost all the completers included both of these major domains as areas of their own expertise, and attributed their knowledge to our EPP. But completers did not feel that the EPP prepared them enough on Data Literacy. All completers acknowledged the efforts of the EPP in emphasizing and demonstrating Professional Practice.

Observations of classroom and the data from the employer survey indicated a slightly different pattern. Intentional Teaching continued to rank high in classroom observations. Completers demonstrated this in terms of their lesson planning, classroom arrangements, formative assessments and summative evaluations. Completers demonstrated their abilities to apply cultural competence in differentiations of instructional methods and assessments. Data Literacy was not as quickly evident but that could also be a function of the time of observations. Completers did share many applications of data usage in their own practice, even if they could not attribute the knowledge to their teacher preparation program. All completers were confident about their professionalism, which was also mirrored in the employer surveys.

Impact on teacher candidates: The teacher candidates, who worked as research assistants, commented on the value of seeing the implementation of their theoretical learning. Both candidates commented feeling overwhelmed by the layers of consideration that went into lesson planning and implementation and also the pressures of teaching while being watched. Still, they both felt more prepared for their clinical and student teaching experiences. As these two teacher candidates complete their program, we plan to compare their student teaching evaluations with non-research assistants to discern any variation, indicative of the effect of their role as research assistants.

Scholarly Significance

First and foremost, conducting the study validated the feasibility of using research as a measure of program effectiveness. It allowed for input directly from our completers and enabled us to determine the extent to which our CLOs were implemented in the P-12 classrooms. Second, it surfaced for us key areas for improvement, including the need for explicit emphasis on Data Literacy. Interestingly, Professional Practice was acknowledged by the completers, the employers and even by the research assistant teacher candidates as areas of strengths. Our subtle infusion of this domain across the courses and clinical experiences has clearly been effective. Third, involving teacher candidates in research enhanced their scholarship by helping them realize the value of active research. It called for rigor in observations and rigor in data analysis, both of which were helpful to emphasize that assessment is ever present in any instructional preparation. As we conclude this research, we are also looking to conducting a more extensive study in the next year where we tap into a larger pool of completers.

Our research goal was to determine the impact of our program but the methodology allowed diverse voices to be heard and acknowledged. First and foremost, it included the perspectives of the two teacher candidates who worked as the research assistants. These candidates are of diverse backgrounds and by engaging in the study as both interviewers and as participant observers in the classroom, they brought their unique perspectives into the discussion. Second, the completers had the opportunity through the two-step interview process to direct the conversation on their own effectiveness. They were able to demonstrate what helped formulate their thinking but also provide directions for program revisions. Finally, for the teacher educators who served as mentors in the study and for the entire EPP, this research project transformed existing practices by democratizing program development.

The implications for action of our study are manifold and we highlight two herein. First, it offers a feasible and scholarly model for self- studying program impact. It offers other EPPs an innovative way to study their own effectiveness. Second, it underscores the value of research in teacher preparation. Engaging in the research study significantly enhanced the two teacher candidates’ abilities to view the classroom holistically, to reflect on their own teaching and to understand the value of continual improvement. Having all teacher candidates engage in active research is a worthy pursuit.

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