Measuring Program Completers' Impact on K-12 Learning

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November 12, 2018

Abstract

Educator preparation Programs nationwide seek evidence to meet accreditation standards for the impact of program completers on P-12 student learning and teaching effectiveness. The University of Evansville's School of Education conducted a systematic case study to identify any areas for improvement within the teacher preparation program. The effectiveness of program completers' impact on student learning was investigated through student growth data collection, teacher observations, and an analysis of results. The purpose of this study was to provide evidence for accreditation as well as identify aspects of the teacher preparation program curriculum that may need revision or a stronger emphasis.

Introduction

The School of Education at the University of Evansville (UE) conducted a case study of the Educator Preparation Program (EPP) in an effort to provide evidence for CAEP Standards 4.1, Impact on P-12 Student Learning and Development, and 4.2, Indicators of Teaching Effectiveness. The case study included evaluation data from a sample of program completers who have been teaching for 1 to 5 years. To date this case study examined participant data at the end of the 2016-2017 and 2017-2018 school years and available Indiana Department of Education Teacher Survey data. The analysis of instructional practice and student growth data enables the EPP to evaluate program effectiveness and the possible need for program curriculum revisions.

The EPP utilizes educational theory and research-based practices to prepare effective classroom teachers. Early field experiences for education majors beginning in the very first year provide over 1000 hours of clinical practice prior to graduation. The EPP's commitment to school-university partnerships provides a professional development opportunity for all program completers.

Literature Review

Theoretical Foundation of Teacher Preparation

Teacher preparation at the University of Evansville focuses on practical experience and mentoring relationships in a professional development school-university partnership in an effort to produce positive P-12 student learning outcomes. The theoretical foundation of this case study is based on two prominent areas of educational research: experiential and social learning, (Bandura, 1977; Dewey, 1938; Rotter 1954;

Vygotsky, 1978). The premise of these theories, which relate to individuals learning from one another to build competencies and confidence, frames this study.

Dewey (1938) concluded that “all genuine education comes about through experience; this does not mean that all experiences are genuinely or equally educative” (p. 25). Dewey’s work stressed the importance of the role of quality experiences in professional development. Dewey defined learning experiences as a circular pattern of trying, questioning, and further experimentation. The foundation of experiential learning is that experience matters and without experience there can be no true conceptual understanding. The educational goals of institutions of higher education often align with the ideals of experiential learning and employ cooperative models for professional preparation. Cooperative education allows for the application of knowledge through experience and creates an opportunity for growth through communication, reflection, and social learning.

The *social learning theory* emphasizes the value of observing modeled behaviors and attitudes. Rotter’s (1954) work on social learning included the concepts of avoiding negative outcomes and promoting positive outcomes through observation of behaviors. Modeled behaviors are seen as crucial components to valued and desirable results.

Early Internship Experiences

The focus on clinical experiences early and often in teacher preparation at UE holds a promise for better prepared novice teachers and a marked improvement for student learning outcomes (National Research Council, 2010). The report prepared by the National Research Council suggests early clinical preparation is one of the most promising practices for effecting student achievement. The early clinical internship

should be a building block and eventually prepare candidates for a capstone experience such as student teaching and a professional portfolio. This portfolio should focus on the candidate's development, but also include the ultimate goal of impact on student learning. These experiences are even more beneficial to teacher candidates when they include supervision and frequent feedback.

Historically, the role of a mentor teacher throughout the internship experience was to accept the teacher candidate into the classroom, serve as host, and model teaching practices. A significant shift in the roles and responsibilities of mentor teachers occurred over the past three decades (Ambrosetti & Dekkers, 2010). The mentor teacher has long been credited with playing the most influential and significant role in the teacher candidates' professional development (Izadinia, 2016; Karmos & Jacko, 1977; Klieger & Oster-Levinz, 2015; Roland & Beckford, 2010). In an early pivotal study by Karmos and Jacko (1977) on the perspectives of teacher candidates on teacher preparation, mentor teachers were considered the most significant and positive influence on teacher candidate learning by more than half of the respondents. The influence was credited to the role mentor teachers played in the development of teacher candidates' knowledge, skills, and professional attitudes. The research on the importance of early practical experience and the influence of the mentor teacher paved the way for new designs in teacher preparation programming.

Professional Development School Model

The professional development school (PDS) model, which began in the 1990s, is currently being practiced within teacher education. This transformation posits that effective teacher preparation cannot solely rest on the shoulders of teacher preparation

programs alone. The professional development school consists of an innovative design formed through partnerships between teacher preparation programs and P–12 schools. This model has several goals: collaboration and a symbiotic partnership between schools and universities, expanded early clinical internship experiences, reform in teacher education, enhanced student achievement, professional development for participants, and research on promoting cultural and linguistic diversity and culturally responsive teaching in preparing teachers for urban school settings (Darling-Hammond, 2009; Grossman, Hammerness, & McDonald, 2009; Johnston-Parsons, 2012). Research on professional development partnerships indicates lower attrition among new teachers and greater teaching efficacy (Darling-Hammond, 2005).

The concept of professional development schools reorganized the teacher candidate field experiences. Criticism for the divide between the educational theory taught at the university and the integration of these theories into classroom teaching was addressed by the expectations of the professional development model. The collaborative nature of the professional development model sought to provide consistency and congruence between the university program and classroom clinical expectations (Zeichner, 2010). The goal was to create clinical settings that would enable teacher candidates to acquire essential skills. The model was designed to link theory and practice by bringing university instruction into the schools and allowing for immediate application in the classroom setting. The role of the mentor teacher became an integral part of this ideology. The findings of a study by Klieger and Oster-Levinz (2015) revealed teachers who are now serving as mentors credit their participation in a professional development teacher preparation model for a greater understanding of the

mentor role. Mentor teachers were now invited to share in the experience of planning and problem solving. The passive manner of including mentor teachers in teacher preparation had taken the shift to an increasingly active and engaging partnership. One of the crucial roles of the mentor teacher under this new model of teacher preparation was to assist the teacher candidate in the ability to link the art of reflection with professional practice in an effort to improve student outcomes.

Johnston-Parsons (2012) offered suggestions for implementing a successful teacher preparation model through partnerships, like the professional development school model, in teacher preparation. Johnston-Parsons identified that an essential key to success is the mutual ownership of the learning community. Additionally, collaborative roles need to be established and well defined and the relationship should be built on trust and offer benefits to all stakeholders. The community of practice created by the professional development school should be theoretically grounded in social learning theory (Bandura, 1977). The theory suggests we are social beings and that knowledge and learning are gained through observing and experiencing the world around us. During teacher preparation, this occurs when teacher candidates have the opportunity to practice teaching skills and observe mentors in the field.

In summary, this case study was designed to reflect the theories of experiential learning and social learning used within teacher preparation at the University of Evansville. The decades of research have provided ample evidence of the contributions of these educational theories in the professional preparation of effective teachers and ultimately P-12 student achievement. Relevant research in early and rigorous clinical experiences, the significant role of the mentor teacher, and the importance of a

professional development school model frame the design of teacher preparation at the University of Evansville.

Methodology

The researchers used a quasi-experimental quantitative design to conduct the multi-year case study. This was a logical approach based on the numerical data provided by case study participants and IDOE surveys (Mertens, 2010). The data collected provided direct evidence of impact on student learning and teacher effectiveness.

Setting and Participants

Participants for this case study were solicited from a pool of program completers employed in the largest regional employer of the School of Education program completers from the University of Evansville. According to the Associate Superintendent for Strategy and Accountability, teachers employed in the school corporation may share their evaluation data with their EPP. Faculty from the School of Education held a focus group with five completers to gain more knowledge on the iObservation instrument and the locally developed assessment (LDA) used across the school corporation. They discussed the items on each instrument and how this information was used. As a result, the University of Evansville School of Education program completers, working in classrooms for five years or less, were asked to share their evaluation data with the School of Education. It was determined that this service period in the classroom would be an appropriate measure of EPP influence on teaching practices.

Data Collection

The school Corporation's online Personnel Directory was used to identify the program completers and their respective school sites. Invitations to participate in the case study were mailed to all program completers within the last 5 years, who were currently employed in the district. Those interested in participating in the case study signed and returned a permission to use data agreement. This form granted the EPP permission to use instructional practice and student growth data solely for accreditation purposes and ensured confidentiality. The evaluations could be mailed, if the participants wished to remain anonymous. It was requested that all students' names be removed. After meetings with their Associate Superintendent for Strategy and Accountability, it was determined that the School of Education should obtain copies of our graduates' iObservations and locally developed assessment data to determine their impact on P-12 student achievement. Therefore, participants were asked to share both teaching observation evaluations and student growth data. Eleven program completers returned signed agreements. To date eleven participants shared evaluation documents for the 2016-2017 school year, and six participants shared evaluation documents for the 2017-2018 school year. Two participants shared date from multiple school years, and some did not yet have all student growth data available. All of the participants shared both the iObservation evaluations and grade level appropriate student growth data.

Measures

iObservations.

According to information obtained from the Teachers Association and verified by School of Education program completers during a focus group, teaching observations and development data account for 90% of the teachers' summative rating. Observations are recorded in iObservation, an online software platform that serves as an interface for evaluation data for both teachers and administrators. Every teacher has a login and password that provides access to evaluation data and an opportunity to upload evidence or artifacts, to support their instructional practice. Each teacher is observed by a minimum of two times over the course of a school year by two different evaluators. Observations may be conducted by building-level administrators including principals, assistant principals, department chairs, or professional development specialists. They may also be observed by district-level administrators, including directors, assistant directors, or coordinators.

Evidence gathered for the 2016-2017 academic year from the observations and teacher-provided artifacts were scored according to the evaluation rubric. Teachers are assigned a rating on a 5-point scale for each of the 4 domains of essential competencies as well as all competencies for which evidence was gathered via observation or teacher-provided artifacts. If non-essential competencies are not scored, their weight is distributed proportionally among the other competencies within the same domain. Based on the percentage weighing for each competency as indicated in the outlines, and overall rubric score between 1 and 5 is assigned to each teacher. A score

of a 3 on the rubric represents solid, effective teaching. The rubric domains of competencies are defined and weighted as follows:

Domain 1: Instructional Design and Assessment (20% of overall score)

- Lesson design
- Standards-based instructional goals and learning outcomes
- Multiple assessments

Domain 2: Instructional Delivery (55% of overall score)

- Academic feedback
- Teacher knowledge of students

Domain 3: Learning Environment (15% of overall score)

- Managing student behaviors
- Environment

Domain 4: Collaboration and Professional Responsibilities (10% of overall score)

- Collaboration with colleagues
- Continuous professional skills and knowledge development
- Awareness and advocacy for profession and students
- Stakeholder engagement and communication
- Teacher leadership
- Teacher compliance to policy and procedures

In simplest terms, the teachers are evaluated on planning for instruction, content delivery and assessment, a classroom environment conducive to learning, collaboration, and professionalism.

Evidence gathered for the 2017-2018 academic year from the observations and teacher-provided artifacts were scored according to the revised evaluation rubric. Teachers are assigned a rating on a 5-point scale for all competencies. The revised rubric domains of competencies are defined and weighted as follows:

Domain 1: Instructional Design and Assessment (15% of overall score)

- Effective lesson design
- Assessment

Domain 2: Instructional Delivery (30% of overall score)

- Resources, activities, and materials
- Presenting instructional content
- Lesson pacing and structure
- Questioning strategies
- Thinking and problem solving
- Monitoring for learning
- Knowledge of students as learners

Domain 3: Learning Environment (10% of overall score)

- Respectful culture
- Environment

Domain 4: Collaboration and Professional Responsibilities (45% of overall score)

- Collaboration to support learning
- Professionalism

Student Growth Data.

Under the teacher evaluation system, student data will account for 10% of the final summative rating. For the majority of teachers, that 10% will include at least two of the following factors: ISTEP student growth data and LDA data (4%), performance toward school or corporation school plan improvement (SIP) goals (2%), and school grade (4%).

For most teachers LDAs will be the work of their professional development community (PLC), and the development of these assessments will occur during the first part of the school year. LDAs will be teacher created and peer reviewed. Information on LDAs is available on the teacher portal. Effectiveness is rated on a 5-point scale based on the percentage of students showing improvement from pre- to post- test. Effectiveness data are scored as follows:

1 - Less than 20%
2 - 20-29.9%
3 - 30-59.9%
4 - 75% or more

Surveys.

The IDOE provided data from valid, reliable and structured observation instruments that demonstrate completer ability to effectively apply professional knowledge, skills and dispositions in classroom settings. Indiana Code 20-28-11.5-9, Sec. 9 requires school corporations to share the results of the most recent teacher evaluations for those with three or fewer years of teaching experience with EPP's. Principals in each school corporation are required to complete a survey that provides information regarding the principal's assessment of the quality of instruction by each

teacher preparation program in Indiana for their teachers employed at the school who initially received their teaching license in Indiana in the previous two (2) years.

Data Analysis

Data were analyzed using SPSS statistical software. Data screening and a descriptive statistics analysis were conducted to provide the range, mean, and standard deviation for each measure. These analyses were carried out to assess the effect of the EPP on programs completers' teaching effectiveness and impact on P-12 student learning.

Limitations

The quasi-experimental design in educational research restricted random sampling and may have contributed to a threat of self-selection reliability. There was also a risk of self-selection bias, as the program completers were invited to participate in the study. It is important to note that at the beginning of the 2017-2018 academic year the evaluation rubric was revised. The essential competencies were eliminated and all competencies were scored. The weights for each of the domains were also revised.

At this point in the data collection process, the condensed time frame of only two academic years and a relatively small sample size also presented possible limitations to the case study. The above-mentioned limitations posed threats to the validity and reliability of the case study and warrant on-going research.

Findings

Program Completer Data 2016-2017

Data Scale
5.0 - 3.75 Highly Effective
3.74 – 2.75 Effective
2.74 – 1.75 Needs Improvement

1.74 – 1.0 Ineffective

*LDA – Values represent % of students showing improvement form pre-post assessment

Descriptive statistics (N=11) from the iObservation evaluation instrument for Instructional Practice revealed a range of 3.00(Effective)-4.66(Highly Effective) with mean rating of 3.62(Effective) and .54 standard deviation. Descriptive statistics (N=10) from the Student Growth data through ISTEP or SIP revealed a range of 1.00(Ineffective)-5.00(Highly Effective) with a mean rating of 2.93(Effective) and 1.82 standard deviation. Student Growth data through LDA(N=10) revealed a student improvement range of 68%-100%. These growth percentages are interpreted as a range of 4.00-5.00(Highly Effective) on the rating scale with a mean rating of 4.89(Highly Effective) and 1.27 standard deviation. The participants received a student data rating based on both the ISTEP/LDA, SIP data, and school grade. The Student Data Rating revealed a range of 2.80(Effective)-4.50(Highly Effective) with a mean rating of 3.39(Effective) and .64 standard deviation.

Program Completer Data 2017-2018

Descriptive statistics (N=3) from the iObservation evaluation instrument for Instructional Practice revealed a range of 4.18(Effective)-4.79(Highly Effective) with mean rating of 4.46(Effective) and .30 standard deviation. Descriptive statistics (N=1) from the Student Growth data through SIP revealed a range of 1.00(Ineffective)-1.00(Ineffective). Student Growth data through LDA(N=6) revealed a student improvement range of 87%-100% with a mean growth percentage of 96.50%. These growth percentages are interpreted as a range of 4.00-5.00(Highly Effective) on the

rating scale. The participants received a student data rating based on both the ISTEP/LDA, SIP data, and school grade. The Student Data Rating revealed a range of 3.00(Effective).

Examining the mean scores for each of the four Domains in the iObservation instructional practice evaluation revealed “effective” and “highly effective” ratings. All individual participants were rated “effective” and “highly effective” across all four Domains with the exception of one participant who was rated “needs improvement” for Domain 3, Learning Environment. Overall, the highest mean score was in Domain 3, Learning Environment. The second highest mean score was in Domain 2, Collaboration and Professional Responsibilities, followed by Domain 1, Instructional Design and Assessment, and finally Domain 2, Instructional Practice.

According to the Indiana Department of Education Teacher Survey Data, the percent of University of Evansville program completers receiving a teacher evaluation rating of Effective or Highly Effective during the 2014-2015 school year are as follows:

Teachers with One (1) Year Experience = 21 (18 Effective, 2 Highly Effective)
Teachers with Two (2) Years of Experience = 21 (16 Effective, 5 Highly Effective)
Teachers with Three (3) Years of Experience = 25 (10 Effective, 10 Highly Effective)
Grand Total Rated Effective: 44
Grand Total Rated Highly Effective: 17
Grand Total Effective and Highly Effective: 61
Grand Total Teachers Evaluated: 67

The data indicated that 97.6% of program completers with 1-2 years of teaching experience were rated either "Effective" or "Highly Effective" as a practicing teacher. Ninety-one percent of program completers with 1-3 years of teaching experience were rated either “Effective” or “Highly Effective” as a practicing teacher.

The percentage of the University of Evansville program completers receiving a teacher evaluation rating of Effective or Highly Effective during the 2015-2016 school year are as follows:

Teachers with One (1) Year Experience = 28 (26 Effective)
Teachers with Two (2) Years of Experience = 17 (13 Effective, 2 Highly Effective)
Teachers with Three (3) Years of Experience = 25 (18 Effective, 7 Highly Effective)
Grand Total Rated Effective: 57
Grand Total Rated Highly Effective: 9
Grand Total Effective and Highly Effective: 66
Grand Total Teachers Evaluated: 70

The data indicated that 91.1% of program completers with 1-2 years of teaching experience were rated either "Effective" or "Highly Effective" as a practicing teacher. Ninety-four percent of program completers with 1-3 years of teaching experience were rated either “Effective” or “Highly Effective” as a practicing teacher.

Discussion and Recommendations

This longitudinal case study allowed the EPP to continually monitor the teaching effectiveness of program completers in an effort to analyze program curriculum and design. The findings from this case study provided evidence of program completers for CAEP Standards 4.1, Impact on P-12 Student Learning and Development, and 4.2, Indicators of Teaching Effectiveness. The participant and IDOE survey data indicated all program completers are rated either “effective” or “highly effective” for student learning outcomes and teaching practices. The findings also revealed that the program completer ratings improved over time.

The findings suggest the program completers’ immersion in the K-12 classroom early and often during their teacher preparation program contributed to effective classroom teaching (Darling-Hammond, 2009). In addition, bridging theory and practice was critical for the process of preparing effective teachers (National Research Council, 2010; Zeichner, 2010). The collaborative partnership between the EPP and a local school corporation was crucial for creating these positive outcomes for both program completers and K-12 students (Johnston-Parsons, 2012).

The practical application of skills during several clinical experiences proved to be very beneficial to program completers across all disciplines. The design of the teacher preparation program allowed teacher candidates to learn strategies and methods that could immediately be applied in a clinical setting. These opportunities to practice in the actual classroom setting proved to be an asset for early career practicing teachers.

Discussion with focus group participants identified the key reasons for practitioner success as the wide variety of experiential learning working closely with

mentor teachers and a teacher preparation program that allowed teacher candidates to build the skill sets required to be effective classroom teachers. The study participants have the confidence and skill set to work in culturally diverse inner-city schools. All program completers have had experience in Title I schools. Due to the coursework and emphasis on variety of school community experiences, program completers are culturally competent. The findings confirmed program completers are effectively teaching in a highly diverse student population.

The case study revealed some limitations that may be addressed through continued research. Securing additional years of data and soliciting more study participants are among the recommendations for future ongoing research and data analysis. Continued analysis of program completer data will enable the EPP to identify any possible areas of improvement in the teacher preparation program. The four domains of the iObservation teacher evaluation instrument, Instructional Design and Assessment, Instructional Delivery, Learning Environment, and Collaboration and Professional Responsibilities, provided specific areas to examine for program improvements and curriculum revision.

References

Ambrosetti, A., & Dekkers, J. (2010). The interconnectedness of the roles of mentors and mentees in pre-service teacher education mentoring relationships. *Australian Journal or Teacher Education, 35*(6).

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84(*2) 191-215.

Darling-Hammond, L. (2005). Teaching as a profession: Lesson in teacher preparation and professional development. *Phi Delta Kappan, 87*(3), 237-240.

Darling-Hammond, L. (2009). Teacher education and the American future. *Journal of Teacher Education, 61*(2), 35-47.

Dewey, J. (1938). *Experience and education.* New York: The Macmillan Company.

Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching, 15*(2), 273-289.

Izadinia, M. (2016). Pre-service teachers' professional identity development and the role of mentor teachers. *International Journal of Mentoring and Coaching in Education, 5*(2), 127-143.

Johnston-Parsons, M. (2012). *Dialogue and difference in a teacher education program.* Charlotte, NC: Information Age Publishing, Inc.

Karmos, A., & Jacko, C. (1977). The role of the significant others during the student teaching experience. *Research in Teacher Education. 28*(5), 51-55.

Klieger, A., & Oster-Levinz, A. (2015). The influence of teacher education on mentor teachers' role perception in professional development schools. *Journal of Education for Teaching, 41*(2), 115-127.

Mertens, D. (2010). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (3rd ed.). Thousand Oaks, CA: SAGE.

National Research Council. (2010). *Transforming teacher education through clinical practice: A national strategy to prepare effective teachers.* Washington DC: National Council for Accreditation of Teacher Education

Roland, K., & Beckford, C. (2010). Supporting associate teaching and mentoring of teacher candidates: Building a community of practice. *Literacy Information and Computer Education Journal, 1*(2), 103-109.

Rotter, J. (1954). *Social learning and clinical psychology.* New York: Prentice-Hall.

Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college and university-based teacher education. *Journal of Teacher Education, 89*(11), 89-99.