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Manuscripts on theory, research, and practice in business education or in fields of study related to business education must meet the criteria for acceptance of manuscripts and must follow the format for submitting manuscripts. This information is included in this issue. All manuscript correspondence should be sent to the editor.

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CREATING AN INSTRUCTIONAL FRAMEWORK TO PREPARE TEACHER EDUCATION CANDIDATES FOR SUCCESS ON A PERFORMANCE-BASED ASSESSMENT

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Abstract

Problem: *Beginning in fall 2013, business teacher education (BTE) candidates at Illinois State University (ISU) were required to complete the Education Teacher Performance Assessment (edTPA), which is a national performance-based, subject-specific assessment used by more than 600 teacher preparation programs in some 40 states to emphasize, measure, and support the skills and knowledge that all classroom teachers need from Day 1 (American Association of Colleges for Teacher Education, 2015).* **Purpose**: *The purpose of this study was to determine whether increased teacher candidate preparation and support and greater instructor knowledge of the edTPA would result in higher candidate scores on the edTPA.* **Method**: *After the first full year of pilot-testing (2013-2014), the BTE students averaged 31.57 out of a possible 75 points on the assessment. A score of 35 was considered successful. The BTE program was one of the lowest scoring programs in the university during the pilot. Faculty members determined that several steps needed to be taken to assist BTE students in understanding and preparing for this new assessment. Consequently, faculty created an instructional framework to prepare students for the edTPA.* **Findings**: *After implementing the framework, student edTPA scores increased to a mean score of 48.5. The results indicated that candidate success on the edTPA can be impacted by three factors: instructor knowledge, candidate preparation, and candidate supports. If any one of the three factors is deficient, candidates are not as prepared as they could be for successful completion of the performance-based assessment.*

Introduction

Beginning in spring 2011, Illinois State University (ISU) began piloting a teacher candidate performance-based assessment known as the Education Teacher Performance Assessment (edTPA).

EdTPA is a performance-based, subject-specific assessment and support system used by more than 600 teacher preparation programs in some 40 states to emphasize, measure and support the skills and knowledge that all teachers need from Day 1 in the classroom. EdTPA is the first such standards-based

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assessment to become nationally available in the United States (American Association of Colleges for Teacher Education, 2015, p. 1).

Illinois requires business teacher education candidates to create an edTPA portfolio during their student teaching experience that demonstrates five key competencies: planning, assessment, instruction, reflection, and academic language. Candidates must plan for three to five consecutive lessons that incorporate state and national business education standards as well as the Common Core State Standards. Learning tasks created by teacher candidates give classroom students an opportunity to demonstrate their ability to use business-related concepts, technical skills, and problem-solving strategies. Artifacts such as lesson plans, student work samples, analysis of student learning, planning and assessment documentation, and reflective commentaries demonstrating the five competencies must be included in the portfolio as well as unedited video recordings of the teacher candidate at work in an actual classroom. The portfolio is electronically submitted to a third party for scoring. Fifteen different rubrics are used to score the portfolio for a maximum possible score of 75. Although pilot-testing was conducted on a select number of education programs at ISU, the business teacher education program was not part of this initial pilot.

Purpose of Study

Beginning in fall 2013, BTE candidates were required by ISU to complete the edTPA. After the first full year of pilot-testing (2013-2014), BTE students averaged 31.57 out of a possible 75 points on the assessment. To be considered successful, a score of 35 was required. The BTE program was the lowest scoring program at the university. After reviewing score results, faculty members determined that several steps needed to be taken to assist BTE students in understanding and preparing for this new assessment.

The research question for this study was: Will increased teacher candidate preparation and support and greater instructor knowledge of the edTPA result in higher candidate scores on the edTPA? The researchers applied varying instructional strategies on different treatment groups and compared the resulting candidate edTPA scores.

Review of the Literature

Requirements for the assessment of pre-service teachers have been mandated at both the federal and state levels (Darling-Hammond, 2006). Currently there is a movement to reform both teacher assessment and teacher-candidate assessment. A report by the National Council for Accreditation of Teacher Education (NCATE) (2010) found that "It is time to fundamentally redesign preparation programs to support the close coupling of practice, content, theory, and pedagogy" (p. iii).

In this era of reform, a portfolio is often chosen to assess effective teaching. Several educational groups currently use portfolios to move from a behaviorist

type of teacher assessment toward a constructive approach to teacher assessment. "The National Board for Professional Teaching Standards includes a portfolio as a part of the assessment process in awarding teachers national certification" (McNelly, 2002, p. 53). At the collegiate level teacher preparation programs require teacher candidates to prepare portfolios to assess the candidate's ability to be an effective classroom teacher (Delandshere & Arens, 2003). According to Sickle, Bogan, Kamen, Baird, and Butcher (2005), using a portfolio to assess a teacher candidate's readiness to become a classroom teacher has replaced the traditional exit exam in several states. The portfolio enables pre-service teachers to "plan, monitor and reflect, to uncover concerns, to engage in discourse, to collaborate and to improve on their teaching" (Chitpin & Simon, 2009, p. 277). Reinforcing the importance of portfolios in the development of pre-service teachers, Robichaux and Guarino (2012) found that preservice teachers who completed portfolios scored significantly higher on performance and professionalism than pre-service teachers who did not complete portfolios.

Portfolios are a valuable tool because they "align the formative and summative functions of assessment: the so-called *assessment for learning* and the *assessment of learning*" (Struyven, Blieck, & De Roeck, 2014, p. 42). In a formative capacity, a portfolio provides an opportunity for candidates to reflect on their own learning and to document growth (Denney & Grier, 2012). Dewey (1938) postulated that "We do not learn from experience. We learn from reflecting on experience" (p. 78). Used in a summative capacity, portfolios provide an accumulation of evidence that demonstrate a teacher candidate's ability to plan, execute, and assess the effectiveness of instruction. According to Henry et al. (2013), the edTPA, which utilizes a portfolio as a means of assessing teacher candidates, has been field tested in at least 25 states and has the potential to be a valuable summative measure.

Instructional Strategies

Prior to fall 2013 semester, BTE faculty knew little about the edTPA and how it might be utilized to assess candidates' performance during their student teaching experiences. To increase their knowledge of this assessment, faculty attended a series of workshops developed by the university's edTPA coordinator. BTE instructors also analyzed performance results of each BTE student cohort to better understand the assessment and to create strategies to support subsequent BTE candidates in their completion of this assessment. The researchers created and utilized the conceptual framework in Figure 1 to develop a targeted set of instructional activities to support BTE teacher candidates completion of the edTPA.

Additionally, the researchers decided to use Kolb's (1984) model of experiential learning, which proposed, "Learning is a continuous process grounded in experience. Knowledge is continuously derived and tested out in the experiences of the learner" (p. 27). The experiential learning model posits that learners have a
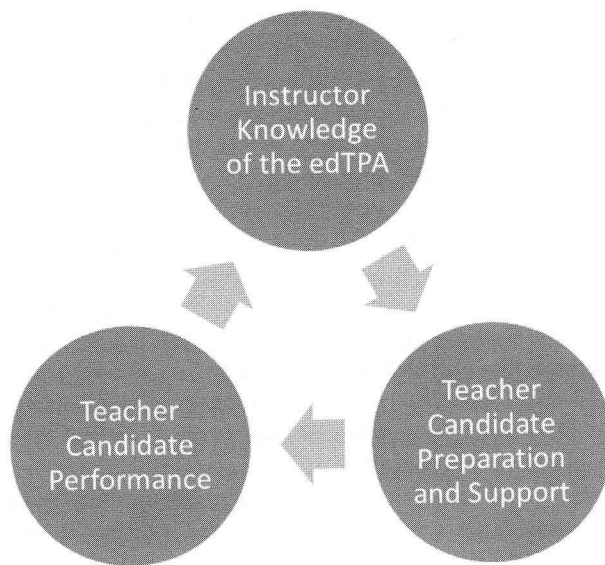
Figure 1. Conceptual Framework.

concrete experience which they reflect upon in order to draw abstract conclusions. These conclusions are used to develop a new idea or to modify an existing one. The learner experiments with this idea in a situation that is similar to the original experience and then assesses the experience and draws new conclusions. As this cycle is repeated, learning takes place.

Methodology

Based on the conceptual framework of experiential learning, the researchers utilized a comparative methodology, ex post facto using deductive data analysis, to determine the effects of differing instructional frameworks on candidate performance on the edTPA. Using an experimental methodology is not always possible because it is sometimes prohibitively expensive in terms of time, money, and effort, or it may not be practical (Lord, 1973).

Because of the complexity and nature of the social sciences, researchers may be unable to control all the variables in order to study cause and effect. When it is not practical or when it is unacceptable to manipulate the characteristics of the research subjects, the majority of social research is based on ex post facto research designs (Salkind, 2010). This causal comparative method, also known as the ex post facto research design, is sometimes referred to as "observational studies" because there is no intervention by the researcher (Jarde, Losilla, & Vives, 2012; Lord, 1973). Instead, researchers examine the effects of an event after the event has occurred. The evidence that results from the observation of the event may

explain a hypothesis rather than test it. The main weakness of this research design is the lack of control researchers have over the variables (Lord, 1973). However, this design does have the advantage of meeting an important need where an experimental research design is not possible.

The researchers chose the ex post facto design because it enabled them to test their hypothesis: Increased teacher candidate preparation and support as well as greater instructor knowledge of the edTPA will result in higher candidate portfolio scores. While it was not possible to establish a causal relationship in this study, the researchers believed that the results would yield useful information that could be utilized with subsequent business teacher education candidates completing the edTPA.

Timeline

The pilot project timeline was divided into two periods. The first period spanned three semesters, fall 2013, spring 2014, and fall 2014. The second period included only one semester, spring 2015. The pilot periods were determined by the type of instructional supports provided to the business teacher education candidates.

Participants

Business teacher education candidates were assigned to one of two pilot groups. Students in Pilot Group 1 received minimal teacher candidate preparation for the assessment. Students in Pilot Group 2 received targeted teacher candidate preparation during the semester prior to student teaching.

Pilot Group 1

Seven business teacher education candidates completed the edTPA assessment during three semesters. One of the candidates would have passed the assessment based upon the state-identified minimum passing score of 35 out of a possible 75 points. Although the cut score was not consequential during the pilot period, meaning it did not impact the candidate's graduation from the university or licensure by the state, the score did serve as a benchmark for teacher education programs at the university. The business teacher education program had the lowest overall average score at the university during the first half of the pilot period. The average score for this group was 31.57.

Fall 2013. This semester included two business teacher education candidates who participated in the pilot; these students were the first from the program to complete the edTPA. Neither the BTE faculty nor the students completed any preparation for the edTPA. The candidates did attend a workshop on how to submit their edTPA portfolios to a third party (Pearson) for scoring. The edTPA coordinator conducted the workshop and faculty attended the workshop. The faculty had not completed any training on the process for submitting the edTPA and had not completed any workshop sessions on the expectations of the assessment.

Spring 2014. In spring 2014 there were four business teacher education candidates who participated in the pilot. The students attended one, two-hour overview workshop where the edTPA coordinator explained the basic expectations of edTPA. Additionally, the students attended a two-hour workshop conducted by the edTPA coordinator on how to submit their portfolios to Pearson for scoring. BTE faculty were present for both workshops. During the semester, BTE faculty attended large- and small-group workshops to learn about the logistics of analyzing the edTPA rubrics, basic technology assistance in creating the videos in the required edTPA format, and edTPA kaffeklatsches to share experiences with other university teacher education programs. The faculty also began reviewing the materials provided to supervising faculty, including *Making Good Choices—A Support Guide for edTPA Candidates* and the *Assessment Handbook for Business Education.* Faculty studied the 15 edTPA rubrics (*Assessment handbook for business education*, 2013) and worked with the edTPA coordinator to develop the skills needed to guide students in making appropriate choices for a learning segment (*Making good choices: A support guide for edTPA candidates*, 2013) and to provide acceptable feedback to teacher candidates.

Fall 2014. Only one teacher education candidate participated in the fall 2014 pilot. The supports provided to the candidate included four, one- to two-hour workshops. These workshops included an overview of the edTPA and a workshop for each of the three tasks in edTPA. They were conducted by the edTPA coordinator with the program faculty acting in an advisory capacity. The workshops focused on answering the teacher education candidate's questions; however, at the end of the process, the candidate reported that not all of the feedback given in the workshops had been applied. The faculty continued to study materials provided to supervising faculty, began targeted learning sessions with the edTPA coordinator, and learned to use the document *Understanding Rubric Level Progressions (Understanding rubric level progressions*, 2014) that was released during the semester. Faculty also attended workshops provided by the university throughout the fall semester.

Pilot Group 2

Eight students participated in Pilot Group 2 and completed student teaching during the spring 2015 semester. Their individual scores ranged from 43 to 73 with an overall average score of 48.5 on the 75-point scale. This 17-point increase resulted in the program being a top performing program at the university. Only one other program had an overall average higher than the business education program. All eight students would have exceeded the state-mandated passing score of 35.

Fall 2014. In fall 2014 all students participated in a semester-long methods class where the edTPA portfolio was explained. Students completed a mini-edTPA assignment using the student resources *Making Good Choices—A Support Guide for edTPA Candidates* and the *Assessment Handbook for Business Education.*

Late in the semester the resource *Understanding Rubric Level Progressions* was made available to the programs and shared with the students.

The students attended a 75-minute edTPA overview workshop and a 75-minute workshop on academic language conducted by the edTPA coordinator. In addition, two classes from the College of Education incorporated edTPA instructional supports. The Principles and Practices for Teaching and Learning in Secondary Schools course required students to complete a modified edTPA during clinical hours. The Integrating Multiple Literacies and Technology across the Secondary Curriculum course required students to complete a unit on academic language.

During the Basic Business, Accounting, and Accounting Teaching Methods class, the students completed targeted assignments and were provided multiple instructional supports for completion of the edTPA. Students completed Task 1: Planning Commentary, where they created a series of lesson plans, instructional supports, and assessments for a learning segment of their choice. They also completed the official edTPA Planning Commentary document. Requirements for this task included:

- Planning for Business Understanding,
- Planning to Support Varied Student Learning Needs,
- Using Knowledge of Students to Inform Teaching and Learning,
- Identifying and Supporting Language Demands, and
- Planning Assessments to Monitor and Support Student Learning (Business education Task 1: Planning commentary, 2015).

Faculty members assessed each student's mini-edTPA portfolio and provided extensive feedback for each student based upon *Understanding Rubric Level Progressions*. Before providing feedback to the students, faculty members consulted with the edTPA coordinator to ensure correctness and clarity of the feedback.

Next, students taught a portion of a lesson for 20 minutes. The lesson was recorded on video, and the students selected a 10-minute clip to review and complete the official edTPA Task 2: Instruction Commentary. Task 2 requirements included:

- Learning Environment,
- Engaging Students in Learning,
- Deepening Student Learning,
- Subject-Specific Pedagogy for Business Education, and
- Analyzing Teaching Effectiveness (Business education Task 2: Instruction commentary, 2015).

Faculty members provided feedback to students based upon *Understanding Rubric Level Progressions*. Before faculty feedback was distributed to the students, the edTPA coordinator reviewed the feedback and provided advice to faculty members on the accuracy and effectiveness of the feedback.

The final portion of the class involved students' completion of the official edTPA Task 3: Assessment Commentary. The students graded an assignment and provided feedback to their peers during the teaching segment of Task 2. The students then completed the commentary, specifically addressing:

- Analysis of Student Learning,
- Providing Feedback to Guide Learning,
- Student Use of Feedback,
- Analyzing Student's Language Use, and
- Business-Related Learning, and Using Assessment to Inform Instruction (Business education Task 3: Assessment commentary, 2015).

Minimal feedback was provided by faculty members based upon *Understanding Rubric Level Progressions*. The students had submitted adequate work based upon the requirements for the assignment.

By the end of fall 2014 semester, BTE faculty had an in-depth understanding of the edTPA logistics and performance expectations. They also developed skill in using the edTPA rubrics to analyze candidates' work accurately as determined by the edTPA coordinator.

Spring 2015. Completion of edTPA was an assessed component of the student teaching grade and accounted for 35% of the overall student teaching course grade. In addition, teacher education candidates attended mandatory workshops during their student teaching semester. These sessions included an overview workshop and a workshop for each of the three tasks in the edTPA. During each three-hour workshop, candidates experienced two peer reviews and received extensive faculty feedback. In addition, the edTPA coordinator was on site to respond to any questions and review the feedback being provided. Outside of the formal sessions, students provided informal feedback to each other and asked questions of faculty members as well as the edTPA coordinator.

Results and Discussion

Fifteen students participated in the two pilot groups. Pilot Group 1 included seven participants and spanned three semesters. Pilot Group 2 included eight participants during one semester. The groups were divided based upon first contact with edTPA instruction. Pilot Group 1 received no instruction until the student teaching semester. Pilot Group 2 received instruction during the semester prior to student teaching.

Demographically, the students in the two groups differed slightly. Pilot Group 1 included two females and five males. Six of the students were traditional college students, and one student was a returning student seeking a second bachelor's degree to obtain business teacher licensure. The average GPA for the group was 3.33 on a 4.00 scale. In Pilot Group 2, four of the students were traditional college students; one student was a member of the National Guard who had taken a semester off as a result of being called to active duty; and three students were

seeking a second bachelor's degree (two had already earned M.B.A. degrees). The group included one female and seven males. The average GPA of this group was 3.66 on a 4.0 scale.

Pilot group scores on the edTPA are shown in the following tables. The assessment is divided into three tasks: Task 1, Planning for Instruction and Assessment; Task 2, Instructing and Engaging Students in Learning; and Task 3, Assessing Student Learning. Each task includes five rubrics; each rubric has five levels. A candidate who scored at Level 1 on a rubric earned one point; a candidate scoring at Level 2 would earn two points, etc. The maximum score a candidate could earn on each rubric was 5. The maximum composite score a candidate could earn on the edTPA was 75 (15 rubrics x 5 points per rubric). Table 1 presents the average score for each task and the composite score for Pilot Group 1. Table 2 presents the average score for each task and the composite score for Pilot Group 2.

Table 1
Pilot Group 1 Scores

Pilot Group 1	Semester	Task 1 Average (Rubrics 1-5)	Task 2 Average (Rubrics 6-10)	Task 3 Average (Rubrics 11-15)	Composite Score (75 points possible)
Student 1	F13	1.8	2.2	1.6	28
Student 2	F13	3.2	3.4	2.6	46*
Student 3	S14	1.8	2.6	2.2	33
Student 4	S14	2.4	2.8	1.0	31
Student 5	S14	2.2	2.0	1.2	27
Student 6	S14	2.0	1.6	1.0	23
Student 7	F14	1.8	2.8	2.0	33
Averages		2.17	2.49	1.66	31.57

Note: *Indicates a passing composite score

Limitations

As noted, the two pilot groups were slightly different demographically. This fact is mitigated by the consistency of the business teacher education program. Both groups of students took the same classes that were taught by the same faculty members. In addition, the following differences between the two groups are noted.

- Pilot Group 1 was required to complete edTPA during student teaching; however, it was not incorporated into the student teaching grade. Group 2 was required to complete edTPA, and the score earned was equal to 35% of the overall student teaching grade.

- Pilot Group 1 was a more traditional college-aged group than Group 2.
- During the time Pilot Group 1 was completing edTPA requirements, the faculty knowledge of the assessment was limited. Pilot Group 2 worked with faculty who had a well-developed knowledge of the assessment.

Table 2
Pilot Group 2 Scores

Pilot Group 2	Semester	Task 1 Average (Rubrics 1-5)	Task 2 Average (Rubrics 6-10)	Task 3 Average (Rubrics 11-15)	Composite Score (75 points possible)
Student 1	S15	3.4	3.0	3.4	48
Student 2	S15	3.2	2.8	2.4	43
Student 3	S15	3.4	3.0	3.2	48
Student 4	S15	3.2	2.8	2.6	43
Student 5	S15	3.0	3.0	2.8	44
Student 6	S15	5.0	5.0	4.6	73
Student 7	S15	3.2	3.0	2.8	45
Student 8	S15	3.2	3.2	2.2	44
Averages		3.45	3.23	3.0	48.5

Generalizability of this study must be examined from two perspectives: (a) generalizing to a population and (b) generalizing to a theory. While the results of this study cannot be generalized to a population, the results can be generalized to a theory. The researchers hypothesized that increased teacher candidate preparation and support and greater instructor knowledge of the edTPA would result in higher candidate portfolio scores on the edTPA. After examining the edTPA scores of two different groups of business teacher education candidates, the researchers believe the results of this study can be generalized to the theory that increased teacher candidate preparation and support and greater instructor knowledge of the edTPA results in higher candidate portfolio scores.

Summary, Conclusions, and Recommendations

The results of this research indicate that candidate success on the edTPA is impacted by three factors: instructor knowledge, candidate preparation, and candidate supports. If any one of the three factors is deficient, candidates are not as prepared as they could be to complete the performance-based assessment successfully.

Instructor knowledge requires that the faculty members have a complete understanding of the logistics and expectations of the edTPA. Faculty should practice giving feedback on a variety of topics and skill levels of mock students or train to be official scorers. The more in-depth the faculty member's knowledge of the edTPA, the more effective the candidate preparation will be. One important aspect of faculty knowledge is an understanding of the language used in the edTPA. Additionally, by incorporating the language of edTPA into the teacher education classroom, students become accustomed to the vocabulary, syntax, and discourse used within the assessment, which helps them use the language function successfully when preparing their portfolios. One advantage of using this format for preparing students to complete the edTPA was demonstrated by a spring 2015 graduate of the program. The student sent this message after his first semester evaluation.

> Without a doubt, edTPA prepares you for what it is like to be evaluated as a non-tenure teacher. . . . Everything in edTPA directly relates to a domain in Danielson [the Danielson Framework is the evaluation tool used at his school]. . . . So, while I understand that edTPA seems like a daunting task while student teaching, it truly sets you up for an easier time as an official teacher. My administrators told me that, compared to recent new hires, I was a step ahead in terms of preparing and reflecting on my teaching. They were impressed, and I owe that success to edTPA (Sam Peters, personal communication, November 4, 2015).

Candidate preparation includes the need to expose students to the requirements and academic language used in the edTPA. Ample opportunities for scaffolded practice should be provided within multiple courses to help students develop familiarity with the edTPA assessment prior to their student teaching semester.

Candidate supports should be provided throughout the university coursework. EdTPA is a performance-based assessment requiring deep reflection upon the entire teaching process. Seasoned faculty members may learn new techniques and form deeper appreciation for reflection and critical feedback through teaching about edTPA.

Future Research

At Illinois State University, the first group where the score on edTPA was consequential for business teacher education students (meaning that successful completion of edTPA directly impacted graduation and teacher licensure) began in September 2015. This group received instruction about edTPA during their junior year along with targeted edTPA assignments from the College of Education. The next phase of this research will be to compare Consequential Group 1 to Pilot Groups 1 and 2.

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