Demonstrating Impact on Student Learning: Following up with Program Completers through Case Study Methods

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Standard 4.1

4.1 The provider documents, using multiple measures that program completers contribute to an expected level of student-learning growth. Multiple measures shall include all available growth measures (including value-added measures, student-growth percentiles, and student learning and development objectives) required by the state for its teachers and available to educator preparation providers, other state-supported P-12 impact measures, and any other measures employed by the provider.
Purpose

Recognizing the complexities of quality teaching and teacher preparation while working toward meeting CAEP Standard 4, Boise State moved forward with an investigation of the effectiveness of our completers without the availability of statewide VAM data by conducting mixed-methods case studies of program completers in their first two years of teaching.
Questions

1. How do program completers perform on multiple indicators of teacher effectiveness/quality, including impact on p-12 learning in their first two years of teaching?

2. In what ways are employers satisfied/dissatisfied with Boise State completer preparation to meet the responsibilities of teaching?

3. In what ways are completers satisfied/dissatisfied with their preparation to meet the responsibilities of teaching?

4. What indicators from a case study are useful for informing continuous improvement?
Context

- Idaho: Statewide Framework for Teaching (Danielson 2013) evaluation also used by all public and private institutions of higher education
- Individualized Professional Learning Plan (IPLP)
- Danielson FFT - 4 Domains
- Employer and Alumni Surveys- statewide validation
- Developmental approach to teacher education – Including the assignment of faculty advocates
- Standard Performance Assessment for Teaching – modeled after edTPA
Professional Year

• Year-long clinical field experience
• Danielson certified liaison & auxiliary liaison
• Professional Year Seminars
• Inquiry Project
• Formative Observations – Observable domains & core practices
• Standard Performance Assessment for Teaching
• Professional Year Assessment (PYA)
• Individualized Professional Learning Plan (IPLP)
Why Core Practices?

• Provides a common language for specifying practice, which facilitates engagement in collective activity
• Bridges the divide between methods courses and clinical practice
• Bridges the gap between what novice teachers can consider and what they can do (Kennedy, 1999; McDonald et al., 2013)
Boise State Core Program Practices

What are the Teacher Education Core Program Practices?

a. High-Yield Strategies
b. Engaging Qualities
c. Depth of Knowledge
d. Technology- ISTE Standards
e. WIDA Strategies for English Language Learners
f. College and Career Ready Standards

https://sites.google.com/a/boisestate.edu/bsu-teacher-education/
MET Study

In Fall 2009, the Bill & Melinda Gates Foundation launched the Measures of Effective Teaching Study to test new approaches for recognizing effective teaching.

1. Observations based on the Danielson FFT
2. Tripod Survey of Student Perceptions
3. Student achievement data Math & ELA
Methods

• Triangulation mixed-methods design (Creswell & Plano, 2007)

• IRB Protocols; Consent from each district’s review board; principals; teachers; parents.

• Quantitative data and qualitative data were analyzed separately and then transformed, consolidated, and compared to establish points of convergence and disagreements (Onwuegbuzie & Teddlie, 2003; Creswell & Plano, 2007; Greene, 2007).

• Planned comparisons were made across data sources using SPSS. Triangulation and elaboration across sources were made through analytic figures.
Participants

• Invitations to all known graduates May 2013 to May 2014 teaching within a 50-mile radius from the university.
• Thirteen elementary education program completers and their principals
• Grades K-6 in five different school districts
• The participants formed a heterogeneous sample of ability at exit, grade levels, districts, and school demographics.
Multiple Measures

- Interviews & Focus Groups
- Observations & Evaluations
- Studying Practice & Student Learning UNIT
- Surveys: Alumni, Employer, Tri Pod

Completer Effectiveness
SPSL Unit

Studying Practice and Student Learning (SPSL)

Directed unit study similar to their preservice performance assessment; The Standard Performance Assessment of Teaching, modeled after the edTPA. Four seminars to support design and assessment

Data:

• Student Learning Outcomes- Whole Class
• Student Learning Outcomes- Three Learners
• Reflection resulting in Individualized Professional Learning Plan (IPLP)
SPSL Analysis

• Completers self-analyzed their data and rated their units as; (1) highly effective, with 90 to 100% of their students reaching target on summative assessments; (2) effective, 75-89% reaching target on summative assessments; (3) developing, 60-74% reaching target on summative assessments; or (4) ineffective, less than 60% of students met learning targets. Teacher ratings were reviewed or in some cases calculated by researchers to check for accuracy. Where data was available, percentage gains were calculated. Data from units was transferred to spreadsheets and transformed into tables for presentation.
Observations and Evaluations

• Six classroom observations per teacher: Math and ELA
• Certified observers used a standard observation form aligned with the Danielson Framework for Teaching.
• Checklist of Boise State Core Practices
• Inservice principal evaluations aligned to Danielson Framework for Teaching.
• Professional Year Assessment from Preservice
Analysis of Observations

• Performance level rankings were tied to the Danielson FFT for alignment with inservice teacher evaluation in Idaho. These ratings include: (1) unsatisfactory; (2) basic; (3) proficient; (4) distinguished

• Scores were analyzed for individual and group means for components in classroom learning environments, instruction, and core program practices. Scores were analyzed for proficiency according to the FFT scoring progressions.
# Observations Domain 2

## The Classroom Environment

**Correlated to Idaho Core Teacher Standard 1, 2, 3**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Domain 2</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Growth Opportunities</th>
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<tbody>
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<td>A. Creating an environment of respect and rapport</td>
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<td>B. Establishing a culture for learning</td>
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<td>C. Managing classroom procedures</td>
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<td>D. Managing student behavior</td>
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<td>E. Organizing physical space</td>
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</table>
## Observations Domain 3

**Instruction and Assessment**
*(Correlated to Idaho Core Teacher Standards 1, 2, 5, 6, 8)*

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Domain 3</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>Growth Opportunities</th>
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<tr>
<td>A. Communicating with students</td>
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<tr>
<td>B. Using questioning and discussion techniques</td>
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<td>C. Engaging students in learning</td>
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<tr>
<td>D. Using assessment in instruction</td>
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<td>E. Demonstrating flexibility and responsiveness</td>
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</table>
Core Practices

Core Program Practices Observed and Observational Notes

- High Yield Strategies (Marzano, Pickering & Pollock, 2001) (Danielson 1a, 1b, 3b, 3c)
  - Similarities and Differences
  - Summarizing and Note Taking
  - Reinforcing Effort and Providing Recognition
  - Cooperative Learning
  - Nonlinguistic Representations
  - Generating & Testing Hypotheses
  - Cues, Questions, and Advance Organizers

- Engagement (Schlechty, 2002) / (Antonetti and Garver, 2009) (Danielson 3b, 3c, 2a, 2b)
  - Personal Response
  - Clear/Modeled Expectations
  - Intellectual, Emotional Safety
  - Learning with Others
  - Novelty and Variety
  - Choice
  - Authenticity

- DOK / Blooms (Bloom et al, 1956) / (Webb 1959) (Danielson 3b, 3c)
  - DOK- 1 Recall & Reproduction
  - Knowledge
  - DOK- 2 Skills & Concepts
  - Apply & Understanding
  - DOK- 3 Strategic Thinking
  - Analysis
  - DOK- 4 Extended Thinking
  - Creating & Evaluation

© Jim Garver, 2006

English Language Development Standards

WIDA English Language Level(s) Mark the number of students at each level.


Instructional Supports

- Sensory Supports
- Graphic Supports
- Interactive Supports
Core Practices

ISTE Standards Observed

_ISTE 1: Facilitate and Inspire Student Learning (Use technology to engage, support, inspire student learning?)_
_ISTE 2: Design and Develop Digital Age Learning Experiences and Assessments (Use technology to differentiate, personalize, offer choices, and assess?)_
_ISTE 3: Model Digital Age Work and Learning (Use variety of technological tools to communicate and collaborate and/or ask students to do so?)_
_ISTE 4: Promote and Model Digital Citizenship and Responsibility (Teach ethical, legal and safe use of technology and internet etiquette? Promote global awareness and increase cultural understandings by using technology to communicate and collaborate with people of other cultures?)_

College and Career Ready Standards

ELA CCSS SHIFTS

__Shift 1:__ Teacher engaged students in building knowledge and academic language through a balance of content rich, complex, nonfiction, and literary texts.

__Shift 2:__ Teacher facilitated student Reading/Writing/Speaking that is grounded in evidence from the text, across the curriculum.

__Shift 3:__ Teacher provided opportunities for students to use digital resources strategically, and to conduct research and create and present material in oral and written form.

__Shift 4:__ Teacher fostered an environment in which students collaborate effectively for a variety of purposes while also building independent literacy skills.

Math CCSS Shifts

__Shift 1:__ Teacher engaged students in working deeply on a focused topic

__Shift 2:__ Teacher explained or engaged students in activities focused on why the math works and asked students to talk about and prove their understanding.

__Shift 3:__ Students were asked to use math in real-world situations.
Interviews and Focus Groups

• Teachers participated in three focus group interviews with 6-7 participants each. Interviewers all used the same protocols.

• Principals participated in one individual interview. Interviewers all used the same protocols.
Analysis of Interviews

• Qualitative cyclical coding of transcripts by two researchers. Codes were aligned with FFT domains and components.

• Researchers chunked the codes into themes to identify primary trends across the interview transcripts
Surveys

• Alumni Survey
• Employer Survey
• Tripod Survey of Student Perceptions (Ferguson, 2012)
Survey Analysis

• Surveys were distributed and statistical data analysis was conducted in Qualtrics. For Tripod surveys, researchers computed a mean score for each of the seven scales, as well as mean score across the items for each completer. Next, percentage agreement per question and construct were calculated for each teacher and the group.
Findings

• Data from observations, evaluations, student surveys, and SPSL units demonstrate that completers effectively apply the professional knowledge, skills, and dispositions that preparation experiences were designed to achieve.
### SPSL Units: Teacher Effectiveness

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Highly Effective 90-100% of students met or exceeded target</th>
<th>Effective 75-89% of students met or exceeded target</th>
<th>Developing 60-74% of students met or exceeded target</th>
<th>Ineffective Fewer than 60% of students met or exceeded targets</th>
<th>% Effective or Highly Effective</th>
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<tr>
<td>Overall</td>
<td>12</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td>83%</td>
</tr>
<tr>
<td>ELL</td>
<td>5</td>
<td></td>
<td>3</td>
<td>2</td>
<td></td>
<td>60%</td>
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<tr>
<td>ADHD or Off Task</td>
<td>6</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>SEPD or Below Grade Level</td>
<td>8</td>
<td>2</td>
<td>4</td>
<td>2</td>
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<td>75%</td>
</tr>
<tr>
<td>Social Emotional</td>
<td>3</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td>100%</td>
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<tr>
<td>Above Grade Level/GT</td>
<td>9</td>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
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FFT Observations, Preservice PYA, and Principal Evaluations score averages

<table>
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<tr>
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<th>Domain 1</th>
<th>Domain 2</th>
<th>Domain 3</th>
<th>Domain 4</th>
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<tr>
<td></td>
<td>PYA</td>
<td>Principal Eval Ave</td>
<td>BSU Obs Ave</td>
<td>PYA</td>
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<tr>
<td>WGB2</td>
<td>3</td>
<td>2.8</td>
<td>N/A</td>
<td>3</td>
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<tr>
<td>TSEK</td>
<td>3</td>
<td>3.5</td>
<td>N/A</td>
<td>3</td>
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<tr>
<td>TZE5</td>
<td>2.8</td>
<td>3</td>
<td>N/A</td>
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<tr>
<td>RSN5</td>
<td>2.3</td>
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<td>CHN5</td>
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<td>KMWA3</td>
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<td>BSB2</td>
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<td>KIB6</td>
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<td>JMM2</td>
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<td>N/A</td>
<td>None</td>
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<td>BHWA5</td>
<td>3.8</td>
<td>3</td>
<td>N/A</td>
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</table>

Note: observations only occurred on the observable components in Domain 2 and 3. Averages for all areas were at a proficient level of performance. Preservice FFT data not available on teachers in their second year of teaching.
Completer Perspectives

**Surveys**
- Confidence and competence in content knowledge and pedagogy, Instruction and Professionalism.

**Focus Groups**
- A highlight of the focus group transcripts was the impact completers saw themselves having on student learning.
- Importance of community in program and into practice
- Early field placements
- Deeper knowledge and practice with student data assessment analysis

**Multiple measures**
- Need for strategies in meeting diverse learner needs (in particular English learner)
## Completer Perspective

As a result of my professional preparation, I feel prepared to do the following according to this scale (1-Strongly Disagree, 2-Disagree, 3-Agree, 4-Strongly Agree)

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>1-SD</th>
<th>2-D</th>
<th>3-A</th>
<th>4-SA</th>
<th>n</th>
<th>Mean</th>
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<tr>
<td>1</td>
<td><strong>The Learner and Learning</strong></td>
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<tr>
<td>4</td>
<td>D. Use a variety of assessments (e.g. observation, portfolios, tests,</td>
<td>0</td>
<td>1</td>
<td>10</td>
<td>2</td>
<td>13</td>
<td>3.08</td>
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<tr>
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<td>performance tasks, anecdotal records) to determine student strengths,</td>
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<td>8</td>
<td>H. Teach in ways that support new English language learners</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>1</td>
<td>13</td>
<td>2.54</td>
</tr>
<tr>
<td>9</td>
<td>J. Teach students with a wide variety of exceptional needs</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>1</td>
<td>13</td>
<td>2.85</td>
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<td>11</td>
<td>K. Honor diverse cultures and incorporate culturally responsive</td>
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<td>curriculum in your teaching</td>
<td>0</td>
<td>1</td>
<td>11</td>
<td>1</td>
<td>13</td>
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<td></td>
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<td>10</td>
<td>36</td>
<td>5</td>
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<td>A. Teach the concepts, knowledge, and skills of my discipline(s) in</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>3</td>
<td>13</td>
<td>3.23</td>
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<tr>
<td>2</td>
<td>C. Use knowledge of learning, subject matter, curriculum, and student</td>
<td>0</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td>13</td>
<td>3.23</td>
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<td>18</td>
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<td>26</td>
<td>3.23</td>
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<td>B. Use instructional strategies that promote active student learning</td>
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<td>0</td>
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<td>6. Evaluate the effects of my actions and modify plans accordingly</td>
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<td>G. Encourage students to see, question, and interpret ideas from diverse</td>
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<td>6</td>
<td>4</td>
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<td>1</td>
<td>7</td>
<td>4</td>
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<td>I. Use technology to enhance learning and learning environments</td>
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<td>13. M. Use technology to enhance learning and learning environments</td>
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<td>1</td>
<td>13</td>
<td>2.85</td>
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<td>14. E. Choose teaching strategies for different instructional purposes</td>
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<td>3.08</td>
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<td>14</td>
<td>N. Understand value of working with colleagues, families, community</td>
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<td>2</td>
<td>6</td>
<td>5</td>
<td>13</td>
<td>3.23</td>
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<td>8</td>
<td>4</td>
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<td>15. O. Use self-reflection as a means of improving instruction</td>
<td>0</td>
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<td>8</td>
<td>4</td>
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<td>3.23</td>
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<td>17</td>
<td>16. P. Maintain accurate records</td>
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Employer Perspectives
Employer Perspective

“Her kids that are on our watch list are making growth” and she is impacting kids every day and their learning in terms of the lessons she is designing, the activities that she is leading them through, and the rapport and relationships that she has built with them. Those are kids that are excited to come to school every day and that understand that second grade is their job….the writing and the samples that I saw from the first week of school until now have tremendously improved” (Amy interview transcript, 2/2/15, p.2).
Student Perceptions: Tri-Pod

**Mean Scores**

• All completers’ scores were between 3.29 and 4.48 on a 5-point scale. Completers were ranked highest for Challenge (4.40), Care (4.48), and Confer (4.28). Scores in the lower range were Captivate at 3.79 and Control at 3.29.

**Percentage Agreement**

• When comparisons were made between Boise State completers percent agreement and The MET Study teachers ranked in the 75th percentile Boise State completers’ percent agreement matched or exceeded the MET study teachers in Care, Clarify, Challenge and Confer. Boise State completers were approaching teachers in the 75th percentile for Captivate and Consolidate. Control was closer to the lower to mid range of scores.
Item Agreement: MET Results

- Care: MET (75th Percentile) > Completer Study (Inclusive)
- Control: MET (75th Percentile) < Completer Study (Inclusive)
- Clarify: MET (75th Percentile) > Completer Study (Inclusive)
- Challenge: MET (75th Percentile) < Completer Study (Inclusive)
Significance of a Case Study Approach

• Facilitated a culture of inquiry
• Provided an insider view of how completers enact and embody their preservice preparation
• Provided employer perspectives on teacher readiness to meet the rigors of teaching directly linked to individuals.
• Provided an opportunity to hear from the voices of the students Boise State completers teach.
Significance

• Case study data elaborated and clarified more generalized data gleaned from past employer and alumni surveys and statewide assessment data, that in this case could not be tracked back to our university or tied to completer classrooms. This was data rich enough to illuminate the effectiveness of specific activities in courses and clinical work while simultaneously uncovering missing or ineffectual elements in the program.

• Further case studies are underway and will be expanded to include multiple program graduates and longitudinal studies of new completers.