TEACHER SELF-EFFICACY IN UNDERSTANDING STANDARDS-BASED CURRICULUM:
FINDING THE GAP BETWEEN CURRICULUM AND INSTRUCTIONAL DESIGN

A Dissertation Defense
by
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Statement of the Problem

The variations in teacher practice, teacher beliefs about their ability, and the effectiveness of professional development can cause an observable gap between the learning objective written in standards-based curricula and the instructional design of the lessons teachers deliver.

Numerous studies link teacher effectiveness to student achievement.

Instructional leaders must determine which professional development events support teacher growth and positively impact student success.

Purpose of the Study

- Professional development
- Knowledge of learning standards
- Teacher self-efficacy
- Instructional practice

Ultimately...
- Student success

Research Questions

1. What are teacher perceptions about their ability to design instructional activities that meet educational standards? (Teacher Efficacy Survey)
2. What are teacher perceptions about the impact their efforts will have on student engagement and achievement? (Teacher Efficacy Survey)
3. What reactions did teachers have in regard to the classroom observation data shared with them during a professional development workshop? (Open-ended Interview)
4. How did conversations about the classroom observation data influence teachers’ understanding of the nature of curriculum and instructional standards? (Open-ended Interview)
5. How did understanding the nature of curriculum and instructional standards impact teachers’ instructional practice? (Lesson Plan Content Analysis)
The significance of this study is represented in the manner in which the observation data were collected, the purpose of the data, and how the data were used to drive the professional development conversations.

**Fidelity of Implementation**
- Having, following, evaluating, & revising a curriculum (DuFour & Eaker, 1998; Downey & Frase, 2001; Crain, 2009)

**Standards Movement**
- Clarify, align, & deliver academic standards (O’Day & Smith, 1993; Cohen, 1996; Rowan, 1996; Reeves, 2002; Ainsworth, 2003; Wiggins & McTighe, 2005; Marzano & Haystead, 2008)

**Professional Development**
- Differentiated, collaborative, focused (Bruner, 1966; Gallagher, 1999; Desimone, 2009)

**Teacher Self-Efficacy**
- Belief in ability & potential of that ability (Woolfolk & Hoy, 1990; Bandura, 1994; Guskey & Passaro, 1994; Tschannen-Moran & Hoy, 2001)
Research Design

Survey (Campus-wide)
- Teacher Sense of Efficacy Scale:
  1. Student engagement
  2. Instructional practice
  3. Classroom management

Interviews (Key Informants)
- Semi-structured, open-ended:
  1. Impact of PD
  2. Understanding of standards
  3. Instructional practice

Content Analysis
- Lesson plans:
  1. Learning target
  2. Student focus
  3. Content objective
  4. Performance objective

Data Collection
- Announced study at campus staff meeting [N=29; 17 5th grade teachers & 12 6th grade teachers]
- Invited all staff to participate in survey [23 respondents & 15 candidates less 1 administrator]
- Monitored responses for volunteers for interviews [n=14]
- Identified one interview volunteer from each content area
- Conducted one-on-one, open-ended interviews
- Collected lesson plans from volunteers [3 full week's worth from non-consecutive weeks]

Key Informant Subgroup

<table>
<thead>
<tr>
<th>Key Informant (K)</th>
<th>Content Area Taught</th>
<th>Grade Taught</th>
<th>Years in District</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1</td>
<td>English language arts &amp; reading</td>
<td>6th</td>
<td>16-20 years</td>
</tr>
<tr>
<td>K2</td>
<td>science</td>
<td>5th</td>
<td>4-6 years</td>
</tr>
<tr>
<td>K3</td>
<td>social studies</td>
<td>5th</td>
<td>4-6 years</td>
</tr>
<tr>
<td>K4</td>
<td>mathematics</td>
<td>6th</td>
<td>7-9 years</td>
</tr>
</tbody>
</table>

Data Analysis

Survey (QUAN)
- Frequencies
- Means
- Standard Deviations
- Percentages

Interviews (QUAL)
- Constant comparative analysis
- Recursive coding
- Member checking
  1. Reaction to data
  2. Benefit of conversation

Content Analysis (QUAN/QUAL)
- 1. Frequencies
- 2. Categorized
- 3. Classified
- 4. Key words in context
Data Analysis – Survey (QUAN)

Research Questions:
- What are teacher perceptions about their ability to design instructional activities that meet educational standards?
- What are teacher perceptions about the impact their efforts will have on student engagement and achievement?

Descriptive Analysis
- Means – central tendency and spread
- Standard Deviations – spread of the scores
- Percentages – by classification for frequency distribution

TSES Scores: Mean and SD

<table>
<thead>
<tr>
<th>TSES</th>
<th>Mean</th>
<th>SD</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Engagement</td>
<td>55.8</td>
<td>7.9</td>
<td>78</td>
</tr>
<tr>
<td>Instructional Strategies</td>
<td>61.5</td>
<td>5.0</td>
<td>85</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>61.6</td>
<td>7.8</td>
<td>86</td>
</tr>
<tr>
<td>Total</td>
<td>178.9</td>
<td>16.3</td>
<td>83</td>
</tr>
</tbody>
</table>

Note: N=23; *out of a possible score of 216 and 72

Key Informant TSES

<table>
<thead>
<tr>
<th>TSES</th>
<th>K1</th>
<th>K2</th>
<th>K3</th>
<th>K4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Engagement</td>
<td>62</td>
<td>86%</td>
<td>42</td>
<td>58%</td>
</tr>
<tr>
<td>Instructional Strategies</td>
<td>61</td>
<td>85%</td>
<td>61</td>
<td>85%</td>
</tr>
<tr>
<td>Classroom Management</td>
<td>64</td>
<td>89%</td>
<td>70</td>
<td>97%</td>
</tr>
<tr>
<td>Total</td>
<td>187</td>
<td>87%</td>
<td>173</td>
<td>80%</td>
</tr>
</tbody>
</table>

n=4

Data Analysis – Interviews (QUAL)

Research Questions:
- What reactions did teachers have in regard to the classroom observation data shared with them during a professional development workshop?
- How did conversations about the classroom observation data influence teachers’ understanding of the nature of curriculum and instructional standards?

Constant comparative analysis
- 1. Reaction to data
- 2. Benefit of conversation
- Recursive coding
- Conceptualization
- Essence captured
- Member checking
Data Analysis – Interviews (QUAL)

- **Teacher Reactions**
  - Theme 1: Perceived problems with SOI data
  - Theme 2: Observation data impacted planning

- **Peer Conversations**
  - Theme 3: Observing others helped clarify the process
  - Theme 4: Self-reflection motivated the need for collaboration

Data Analysis – Content Analysis (QUAN/QUAL)

- **Research Question:**
  - How did understanding the nature of curriculum and instructional standards impact teachers’ instructional practice?

- **On Target, Student-Centered, Content, Objective Cognitive Level**
  - Frequencies
  - Categorized
  - Classified
  - Key words in context

### Student-Centered Activities

<table>
<thead>
<tr>
<th>Subject</th>
<th>ELAR</th>
<th>Science</th>
<th>Social Studies</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>73%</td>
<td>87%</td>
<td>60%</td>
<td>80%</td>
</tr>
</tbody>
</table>

### Content Aligned Objective

<table>
<thead>
<tr>
<th>Subject</th>
<th>ELAR</th>
<th>Science</th>
<th>Social Studies</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>67%</td>
<td>80%</td>
<td>87%</td>
<td>93%</td>
</tr>
</tbody>
</table>
Discussion of Findings

- **TSES - Average score of 83%**
  - Teachers felt their ability to perform closely matched the expectations of their teaching assignments
  - Teachers believed they are not perfect and that there is still some room to grow professionally
  - Possibly based on disillusionment or underestimation of abilities
  - Corroborated by interview data and lesson plan analysis

Conclusions

- **One-on-one, Open-ended Interviews**
  - Efficacious based on feedback and conversations
  - Appreciated gradual progression of data from district to campus to grade level and then content area

- **Lesson Plan Analysis**
  - Content objective met 2/3 of the time to almost always
  - Cognitive objective met 1/3 to 2/3 of the time
  - Nature of content area may have contributed to variations in student-centered instructional design

Implications for Practice

- **Observation protocols**
  - Teachers less skeptical when included in protocols
  - Data presented constructively and not accusatorily
  - Focus on student behavior to meet “student expectations” of standards
  - Stagger classroom visits across a variety of time slots (beginning, middle, and end)
  - Include descriptive data along with quantitative data

- **Professional development**
  - Design – collaboration, data shared from a “sage distance”
  - Purpose – apply data to practice through review, discussion, and drawing collective conclusions
Implications for Practice

- **Interpreting standards**
  - Address cognitive and content levels of standards
  - Being cognizant of performance levels impacted strategies and encouraged reflection on classroom practice
  - Understand the concept of *verbing the stuff* brings an emphasis on what students are supposed to be doing in classrooms

Recommendations

- Instructional leaders should make every effort to help teachers understand and address academic standards
- Feedback should be inclusive, non-threatening, focused, and allow for collective discussion
- Accountability discussions should be pointed yet constructive in nature
- Include teachers as observers
- Present masked data

Limitations

- Lack of scientific, pretest-treatment-posttest, design
  - Observation protocol changed and eliminated further use
  - Change in state standardized test removed it as a student progress measure
  - TSES was not administered before the professional development event under review
- Small sample size
  - Not inappropriate for design but less able to generalize findings
  - Including additional campuses could have created richer data to analyze

Recommendations for Future Research

- Explore connection between cognitive level of instruction and student engagement levels
- Create observation instrument credibility by conducting validation study
- Redesign this study to include pre and post observation data as well as pre and post efficacy measures
Conclusions

- Collegial conversations of observation data impacts teacher efficacy and practice
- Balance of outside perspectives/external evidence and individual classroom expertise
- Teachers need permission to practice
- External evidence keeps practice from becoming about teacher convenience

Thank You & Questions?

- Thank you for your guidance through this process.
- Are there any questions you would like addressed at this time?