Exploring Relationships between Standards-based Training, Instructional Practices, and Learner Outcomes

Kate Rolander & Elizabeth Severson-Irby
The Virginia Adult Learning Resource Center
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Agenda

- Study synopsis & context
- Research questions
- Methodology & data
- Data analysis
- Discussion & implications
Study Synopsis

Process: We are exploring a methodology to examine relationships between PD, instructional practices, and learner achievement.

In our exploration of the relationships between CCRS trainings, instructional practice, and learner achievement, preliminary findings show that, for the year analyzed,

• the teacher group who participated in CCRS PD had higher MSG rates and higher EFL gains than the overall teacher population; and

• teachers who participated in more of our CCRS PD (3 and more) utilized a wider variety of instructional practices than teachers who participated in fewer trainings (1 or 2).
Background: Rationale for the Study

The context
• Low MSG rates for the 2018-2019 year
• Increased focus on standards-based instruction, including large-scale CCRS PD offerings
• Limited data on (and limited capacity to explore) how CCRS trainings relate to instructional practices

Leading questions
• Does our PD impact instructional practice?
• What does instruction look like in classrooms with teachers who participate in PD?
• How does instructional practice relate to learner outcomes?
• How does PD participation relate to learner outcomes?
1. How do measurable skill gain (MSG) rates and educational functioning level (EFL) gains differ for teachers who participate in college and career readiness standards (CCRS) trainings?

2. What does CCRS implementation look like at varying levels of PD participation and MSG rates?
Study Design: Mixed Methods

- **CCRS Participation**
  - 2015 - 2018
  - Rank by # of trainings

- **NRS Table 4 for CCRS teachers**
  - MSG rates
  - EFL gains

- **Grouping**
  - 1st by CCRS #s
  - Then by MSG rates

- **Survey on Practices**
  - Likert-scale
  - Open-ended

- **Analysis**
  - MSG and EFL data
  - Survey data
## Data

<table>
<thead>
<tr>
<th>Learning management system data</th>
<th>NRS data</th>
<th>Survey data</th>
<th>Member checks on findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCRS trainings (2015-2018)</td>
<td>Table 4 for CCRS</td>
<td>Likert-scale items based on CCRS Observation Tools</td>
<td>Forthcoming</td>
</tr>
<tr>
<td>Participant information (N=156)</td>
<td>MSG rates (I)</td>
<td>2 open-ended questions</td>
<td></td>
</tr>
<tr>
<td># &amp; type of trainings/participant</td>
<td>EFL gains (E)</td>
<td>Collection ongoing</td>
<td></td>
</tr>
</tbody>
</table>
Organizing the Data (N=156)

**LMS Data**
- Rank by 1st CCRS year
- Rank by # trainings
- Online v F2F

**NRS Data**
- MSG rates by teacher
- EFL gains by teacher

**Sub-grouping the study sample**
- High & low CCRS participation rates
- High & low MSG rates
Data Analysis Process

CCRS PD Participation

Instructional Practices

Mitigating Factors

MSG Rates

EFL Gains
Preliminary Findings

**Process:** We are developing a methodology to examine relationships between PD, instructional practices, and learner outcomes (MSG and EFL).

Preliminary findings show that

- the teacher group who participated in CCRS PD had higher MSG rates and EFL gains than the overall teacher population; and

- teachers who participated in more of our CCRS PD (3 and more) utilized a wider variety of instructional practices than teachers who participated in fewer trainings (1 or 2).
# of CCRS Trainings & MSG Rates
## # of CCRS trainings & MSG target

<table>
<thead>
<tr>
<th></th>
<th>Met MSG target</th>
<th></th>
<th>Did not meet MSG target</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low CCRS trainings</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>38</td>
<td>Expected 40</td>
<td>Count</td>
<td>43</td>
</tr>
<tr>
<td>Expected</td>
<td>40</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High CCRS training</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>39</td>
<td>Expected 37</td>
<td>Count</td>
<td>36</td>
</tr>
<tr>
<td>Expected</td>
<td>37</td>
<td>38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Association Between Type of Training and MSG % Rates

- **High (3+)**
- **Low (1-2)**

<table>
<thead>
<tr>
<th>Training Type</th>
<th>Mean MSG % Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>45 (High)</td>
</tr>
<tr>
<td></td>
<td>47 (Low)</td>
</tr>
<tr>
<td>Face to Face</td>
<td>42 (High)</td>
</tr>
<tr>
<td></td>
<td>43 (Low)</td>
</tr>
</tbody>
</table>
Association Between Type of Training and EFL Gains

- **High (3+)**
- **Low (1-2)**

- **Online**
  - High (3+): 5
  - Low (1-2): 2

- **Face to Face**
  - High (3+): 2
  - Low (1-2): 4
Survey on the Implementation of the CCRS

Based on CCRS Observation Protocols

What does CCRS implementation look like at varying levels of PD participation and MSG rates?
### Population Sub-groups

<table>
<thead>
<tr>
<th>High CCRS</th>
<th>High CCRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>High MSG</td>
<td>Low MSG</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low CCRS</th>
<th>Low CCRS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low MSG</td>
<td>Low MSG</td>
</tr>
</tbody>
</table>

- N=156
- High CCRS PD: 3 and more
- High MSG rate: >43%
• 3 versions
  • English language arts
  • English language proficiency
  • Math

• 3 sections
  • Instructor information (name, program, region, content)
  • Likert-scale items (12 or 13) adapted from CCRS Observation tool protocol
  • 2 open-ended questions on instructional practice

Open-ended question examples
• Provide at least one example of a unit, lesson, or activity that provides learners with opportunities to apply new concepts to authentic or adult-oriented contexts.
• Describe the kinds of supports and scaffolds you provide to learners who need them in order to understand content and reinforce learning.
ELA Survey Responses by CCRS/MSG Group
<table>
<thead>
<tr>
<th>CCRS MSG</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>High CCRS High MSG</td>
<td>encourage questioning</td>
</tr>
<tr>
<td></td>
<td>evidence to support answers</td>
</tr>
<tr>
<td></td>
<td>monitoring progress</td>
</tr>
<tr>
<td></td>
<td>ongoing informal assess.</td>
</tr>
<tr>
<td></td>
<td>personal relevance</td>
</tr>
<tr>
<td></td>
<td>real-life context</td>
</tr>
<tr>
<td></td>
<td>safe learning environment</td>
</tr>
<tr>
<td></td>
<td>show care</td>
</tr>
<tr>
<td></td>
<td>variety of texts</td>
</tr>
<tr>
<td>High CCRS Low MSG</td>
<td>everyday experiences</td>
</tr>
<tr>
<td></td>
<td>evidence to support answers</td>
</tr>
<tr>
<td></td>
<td>monitoring progress</td>
</tr>
<tr>
<td></td>
<td>real-life context</td>
</tr>
<tr>
<td></td>
<td>variety of texts</td>
</tr>
<tr>
<td>Low CCRS High MSG</td>
<td>current topics</td>
</tr>
<tr>
<td></td>
<td>evidence to support answers</td>
</tr>
<tr>
<td></td>
<td>real-life context</td>
</tr>
<tr>
<td>Low CCRS Low MSG</td>
<td>current topics</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>real-life context</td>
</tr>
<tr>
<td>TL</td>
<td>evidence to support answers</td>
</tr>
<tr>
<td></td>
<td>personal relevance</td>
</tr>
<tr>
<td></td>
<td>real-life context</td>
</tr>
</tbody>
</table>

Count ofThemes

0 1 2 3
Preliminary Survey Findings
Implications for Educators

Our findings are preliminary, and survey responses still represent a small portion of adult education teachers in Virginia.

Based on these preliminary findings, the data indicate that

• higher levels of CCRS PD participation (3 or more) relates to more variety in instructional practice, including the use of a wider range of teaching strategies; and

• a wider range of instructional strategies used in the classroom may relate to higher MSG and EFL gain rates.
Implications for Professional Development

We now have a process in development that may strengthen our capacity to

• connect disparate datasets to examine relationships between PD and performance;
• more accurately target PD to demonstrated instructional skills gaps;
• more accurately determine the influences of PD on instructional behaviors;
• identify and highlight best practices among our teacher population;
• expand our pool of teacher leaders to represent a wider range of instructional experiences by providing us with another way to learn about instructional practices across the state; and
• better meet the needs of teachers and learners through more accurately targeted technical assistance.
Going Forward

• Future research
  • Compare with those who did not receive CCRS training
  • Look at survey data from a larger sample of instructors
  • Collect data over multiple years
  • Look at post-test rate and/or teacher retention

• Implementation
  • Continue to streamline the methodology for analyzing teacher-level data
  • Conduct regular check-ins with instructors regarding how CCRS is being implemented to help drive more targeted PD
Questions

Kate Rolander at kedaly@vcu.edu

and

Elizabeth Severson-Irby at seversonirea@vcu.edu