The Center on Standards, Alignment, Instruction, and Learning (C-SAIL), funded from July 2015 through 2020 by the Institute of Education Sciences, examined how college- and career-readiness (CCR) standards were implemented, if they improved student learning, and what instructional tools measured and supported their implementation.

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/c-sail/26
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C-SAIL Year 3 Convening: FAST Study Presentation

Abstract

Keywords
college and career-ready standards, implementation, professional development, assessment

Disciplines
Education | Educational Assessment, Evaluation, and Research

Comments
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Feedback on Alignment and Support for Teachers (FAST) Program Study

Mike Garet and Toni Smith

C-SAIL FAST Study Leads
American Institutes for Research
Roadmap

• Rationale for FAST program
• Features of the program
• Pilot study conducted last year
• Impact study now underway
The Challenge

• State standards are complex
  – A single standard can address several topics and levels of depth (cognitive demand).
  – The standards differ in nuanced ways from grade level to grade level.
  – The standards for math and English language arts at a single level span several strands (e.g. fractions, decimals) within the same subject.
The Challenge (continued)

• Instruction needs to support all students in reaching the standards
  – Must address the right topics at the right level of cognitive demand for the grade level
  – Must acknowledge that students come to class with different needs

• Teachers need support in understanding the standards and aligning instruction to them
Goal of the FAST Program

Provide teachers with support to:

• **Unpack** the standards
• Implement **aligned instruction** to support all students in reaching the standards

Grade 4: Math
Grade 5: English Language Arts
Components of FAST Program

- Personalized Coaching
- Tools to Support Reflection
- Online Library of Resources
Support from a FAST Coach

• Individual coaching sessions, in which teachers
  – Discuss the content of the teacher’s instruction
  – Identify **actionable** next steps
  – Identify resources to support teachers in taking those next steps
Support from a FAST Coach

• Grade-level, collaborative academic study teams (CASTs), in which teachers
  – Learn about the FAST topics/cognitive demands and how to use them to examine alignment
  – Discuss standards in upcoming instruction, including connections to other grade levels
Tool to Support Reflection: Instructional Log

- Teacher reports on instruction
  - Level of emphasis given to each topic and cognitive demand
  - Use of instructional accommodations
  - Lexile of texts used (ELA)
- Teacher **immediately** receives a report showing alignment of reported instruction to standards
### Picture of Topic/Cognitive Demand

<table>
<thead>
<tr>
<th>Instruction (Over 72 Days)</th>
<th>Topic Categories</th>
<th>Target (Over 174 Days)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Recall/Perform Procedures</td>
<td>Recall/Perform Procedures</td>
<td>Number Concepts</td>
</tr>
<tr>
<td></td>
<td>Demonstrate/Communicate/Understand</td>
<td>Demonstrate/Communicate/Understand</td>
<td>Number Properties and Relationships</td>
</tr>
<tr>
<td></td>
<td>Justify, Evaluate, Generalize</td>
<td>Justify, Evaluate, Generalize</td>
<td>Whole Number/Decimal Operations</td>
</tr>
<tr>
<td>Solve and Interpret Findings from Word Problems</td>
<td>Solve and Interpret Findings from Word Problems</td>
<td>Solve and Interpret Findings from Word Problems</td>
<td>Fraction Operations</td>
</tr>
<tr>
<td></td>
<td>Models and Representations</td>
<td>Models and Representations</td>
<td>Measures</td>
</tr>
<tr>
<td></td>
<td>Measures</td>
<td>Measures</td>
<td>Measurement Relationships and Operations</td>
</tr>
<tr>
<td></td>
<td>Geometric Concepts</td>
<td>Geometric Concepts</td>
<td>Geometric Concepts</td>
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<tr>
<td></td>
<td>Finance</td>
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<td>Total</td>
<td>Total</td>
<td>Total</td>
</tr>
</tbody>
</table>
Tool to Support Reflection: Video Recording

- Teacher video records a lesson and shares lesson details with the coach
  - Completes an instructional log for that lesson
  - Identifies the standard addressed
  - Uploads associated materials
Tool to Support Reflection: Video Recording

- Teacher receives feedback through video clips that support reflection on
  - Alignment of log report to observed instruction
  - Alignment of stated standard to observed instruction
  - Maintenance of cognitive demand for all students, including ELLs and SWDs
Online Library of Resources

- Resources to help teachers
  - Understand/unpack the standards
  - Align instruction to the standards
  - Support ELLs and SWDs with aligned, grade-level material
Frequency of FAST Activities

Over the course of the two-year program, FAST teachers complete:
- Ten 60-minute individual coaching sessions
- Ten 60-minute CAST meetings
- Ten video recordings of instruction
- Periodic completion of the instructional logs
- Additional coaching sessions, as requested by the teacher
FAST Pilot Teacher Testimonials

I knew the standards were there, but didn’t really understand them until the FAST program.

*Fourth-Grade Math Teacher*

Even though I have been teaching for a long time, it is really great to reflect and better your teaching. You receive this sort of support when you first start teaching, but not usually offered at this point. So it is wonderful.

*Fifth-Grade ELA Teacher*
My FAST coach is great! I liked being able to really talk about what is happening in my classroom and identify next steps with her.

*Fourth-Grade Math Teacher*

The best part is the video. Seeing yourself on video is really helpful. For example I see that I do too much of the talking and need to ask more of my students.

*Fifth-Grade ELA Teacher*
FAST Pilot Findings

• Teachers need time to understand
  – The FAST approach to defining alignment
  – The FAST topics and cognitive demands

• The instructional logs can take time to complete; teachers struggled with some of the detailed aspects of the logs

• Some topics were too broad to determine if teachers were teaching on grade level
FAST Pilot Findings (continued)

- The video component was rolled out too late
  - Coaches needed to understand teachers’ instructional context and style earlier in the coaching process.
  - Teachers needed feedback on accuracy of reporting prior to completing instructional logs
Modifications Based on the Pilot

• Roll out the program to start with CAST meetings (orientation), then videos, then instructional logs
• Modify the instructional log
• Narrow the topics to focus on those taught in a band near grade 4 in math and 5 in ELA rather than all grades K-12
Impact Study Research Questions

1. How is the FAST program implemented?
2. Does the FAST program lead to greater alignment of teachers’ instruction with state standards?
3. Does the FAST program lead to stronger student achievement?
Impact Study Design

- We are conducting a two-year randomized controlled trial
  - Recruited 56 elementary schools in 5 districts.
  - Assigned half of the schools to FAST and half to “business as usual”
  - Collecting data from both groups regarding instruction and student learning
Impact Study Progress

- Completed baseline survey data collection
- Continue to implement the FAST program
- Are preparing to administer the end of year surveys
- Have heard from some teachers that they better understand the standards through the program
Impact Study Challenges

• Teachers don’t necessarily have one common time to meet.
• Working around testing has been difficult.
• Teachers feel overwhelmed with other initiatives making it difficult to find time for FAST.