

Implementing a new curriculum: What is the impact of contextual factors?

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Key Challenges

We developed a curriculum, Children's School Success (CSS), to prepare children for success in school. CSS is implemented in classrooms with children who are from low-income families, who have disabilities, and who are English language learners (ELL). In order for the curriculum to be effective, teachers must implement it in their classrooms with a high degree of fidelity. Based on the literature that documents the efforts of schools to adopt innovations (Desimone, 2002; Fullan, 1991; Hargreaves, 1997; Huberman and Miles, 1994), we developed a model to train staff members in this curriculum innovation. Despite intensive and ongoing training, we found that there were differences in the extent to which teachers implemented CSS.

Questions

- Do teachers implement CSS with a high degree of fidelity?
- What is the relationship between teachers' beliefs, and their previous classroom practices and their implementation of CSS?
- What additional factors (e.g., relationships with administrators, classroom staff relationships) affect teachers' implementation of the curriculum?

Method

Participants and Settings

- 15 teachers (3 each from CA, IN, KS, MD, WV)
- Teachers worked for Head Start Programs, State funded pre-k programs, and in once case a community nonprofit at-risk preschool program.

Data Collection

- Research staff
- Collected field notes during trainings and during classroom observations,
 - Interviewed teachers, assistants, and program administrators,
 - Accessed classroom documents.

Data Analysis

- Using data sources, research staff wrote a case study of each classroom.
- We used the case studies to generate initial themes then returned to the raw data to code those data using the initial themes.
- Research staff at each site reviewed their data individually to determine if data confirmed or contradicted those themes.
- Through conference calls across sites, we refined the initial themes and added additional themes.
- We then characterized teachers as high implementers, medium implementers or low implementers of CSS. For this poster we consider only high and low implementers.
- We characterized teachers based on impressions and a review of field notes and interviews.
- We used themes to develop matrices at each site.
 - In the matrix, we listed each theme and provided a narrative description of how teachers from each classroom mapped on to that theme.
 - We clustered themes into areas of curriculum, teacher, classroom and administration.
 - We used a strategy from Miles and Huberman (1994) to simplify the narrative information.
- For each high and low implementer, we used a ++ if a theme had a strong positive influence on the teachers willingness/ability to implement CSS
 - If the influence was positive, but less strong we used +
 - If the influence was negative and strong we used -
 - If the influence was negative but less strong we used --
 - If the theme did not arise in a classroom, or had no influence we used NA
- We determined that a positive or negative influence did not fit for some themes – we chose to characterize those themes descriptively.
- We also arrived at a quantitative score of each teacher based on:
 - Percentage of CSS curriculum each teacher implemented during the year times the fidelity of implementation score each teacher received on a set of standardized rating forms.

High and Low Implementers Teacher's Training, Years Experience and Range of Learners in the Classroom

Sites	Training	Years of Teaching Experience	Number of Children in Class	Four year olds	Three year olds	With IEPs	ELLs
HIGH							
County Pre-K	BA-ECE	15	19	18	1	6	1
Foster HS	CDA	12	17	9	3	3	0
City Pre-K	BA-Psychology	1	11	5	6	1	0
Riverside HS	BA-ECE/ECSE	4	17	17	0	1	0
Cambridge HS	CDA	5	19	16	3	5	0
LOW							
Englar HS	MA-ECE	8	16	8	8	1	1
Hilltop HS	CDA	7	18	16	2	3	0
Jefferson HS	BA-ECE	11	18	16	2	3	2
Vista HS	BA-Art	13	20	13	7	2	20
So. City HS	MA-Art Therapy	10	20	13	7	1	20

High and Low Implementers Quantitative Measure of Implementation

Sites	Quantitative Score of Fidelity
HIGH	
County-Pre-K	4.09
Foster HS	3.88
City Pre-K	4.17
Riverside HS	4.71
Cambridge HS	4.11
LOW	
Englar HS	.42
Hilltop HS	.97
Jefferson HS	1.99
Vista HS	1.87
So. City HS	1.24

Curriculum

- Match with previous curriculum – how similar was the curriculum that the teachers used previously to CSS?
- Structure – CSS provides a lot of structure to lesson implementation. There is a daily large group lesson during which teachers teach either a science lesson or a Dina lesson. There are also small group lessons each day. Those lessons may be science, or Dina or math. CSS also includes a book reading activity, a letter knowledge activity, and a phonemic awareness activity each day. How structured was the teacher in the past?
- Quality of implementation – did the teacher simply implement the activity? Did the teacher demonstrate an understanding of the concepts underlying a particular lesson?
- Integration of the curriculum – did the teacher extend lessons throughout the day? Was there evidence of CSS during activities like meal time, centers time, outside time?
- Individualization for diverse learners – did the teacher individualize the curriculum for learners who had disabilities? Who were ELLs?

Teacher

- Partner in CSS development – did the teacher provide feedback to the site supervisor about CSS?
- Commitment to CSS – because this is a research study, each participant needed to be a voluntary participant. Given that, how willing/excited was the teacher about participating in CSS? Did that level of commitment change over time?
- Attitude toward the administration – How did the teacher feel about their administration? Did positive or negative feelings about the administration affect their implementation of CSS?

Class

Adult relationships – how did the adults work together in the classroom? Did those relationships have an effect on CSS implementation?

Administration

Support for CSS – how strong was the administration's support for CSS? Was the strength different for different levels of the administration?

As we described in our method section, we provided a valence for each theme at each site to indicate if a particular theme was a major positive or negative influence on CSS implementation; if the influence was slightly positive or negative; or if the theme didn't arise at a particular site.

Themes
We identified 10 themes that influenced the implementation of CSS

Theme Analysis

Degree of CSS Implementation	Curriculum					Teacher		Class	Admin	
	Match with Previous Curriculum	Structure	Quality of Implementation	Integration of the Curriculum	Individualization for diverse learners	Partner in CSS development	Commit to CSS	Attitude toward Admin	Adult relationships	Support for CSS
HIGH										
County Pre-K	++	++	++	++	++	++	+/+	+	++	++
Foster HS	++	++	++	++	++	++	++	-	+	++
City Pre-K	++	++	++	++	++	++	++	NA	++	++
Riverside HS	-	++	++	++	++	++	++	NA	-	++
Cambridge HS										
LOW										
Englar HS	--	--	--	--	--	--	--	NA	--	+/+
Hilltop HS	-	++	--	--	--	++	++	NA	-	++
Jefferson HS	--	--	--	--	--	--	--	+	+	++
Vista HS	--	--	--	--	+	--	--	-	+	++
So. City HS										

- ++ strong positive influence
- + positive influence but less strong
- strong negative influence
- negative influence but less strong
- NA didn't arise as a theme or had no influence

Results

Of the 15 teachers who we trained in CSS during year one, there were 5 high implementers and 5 low implementers.

Teachers who were high or low implementers ranged in their preparation from CDA to master's degrees, and in their years of teaching experience. There was also variation in the range of learners in each classroom:

- Classroom size
- Number of 3's and 4's
- Number of children with IEPs
- Number of ELLs

Quantitative Evidence for High and Low Implementers

There was a strong relationship between the researcher's qualitative impression of which teachers were high and low implementers and the quantitative score.

New Questions to Consider

- Add teachers from the second year of implementation and determine if initial themes apply and if there are additional themes that characterize the new group of teachers.
- For this analysis, we considered implementation of the whole CSS curriculum. We want to see if there was differential implementation for different parts of the curriculum (i.e., science, math, social, book reading, phonemic awareness).
- We're interested in seeing if implementation occurs differently for Head Start teachers vs. Pre-K teachers.