



What Teachers Think Matters!

Early Childhood Teachers' Beliefs and Experiences
Influence How Curricula Are Implemented

AUTHORS

Kelsey A. Clayback
Amanda P. Williford
Ginny E. Vitiello

STREAMin³ is a great hands-on and fun curriculum that really focuses on what children need to be ready for kindergarten. The teachers find it easy to follow, and the model gives them loads of support in implementing it.


– School Administrator


Marie was an experienced preschool teacher. When her director encouraged her to use the STREAMin³ curriculum, Marie wasn't sure about how effective it would be, but she was willing to learn the new curriculum, as long as it benefited her students and improved their learning.


Teachers are often asked to try new things in their classrooms: a set of strategies, program or a curriculum. Even when there is interest, research shows that sometimes teachers start to use new strategies and curricula right away, and sometimes they don't.


Effectively implementing a curriculum is important in early childhood settings. Effective implementation is more likely to lead to high-quality early experiences, which are related to many positive outcomes for a young child’s future well-being.¹ In this brief, we describe the results of a study that looked at how teachers’ attitudes and perceptions influenced how effectively they implemented a new evidence-based curriculum called STREAMin³.


CORE Skills

**RELATE** with peers and adults


**REGULATE** their emotions, attention and behavior


**THINK** deeply about the world around them


**COMMUNICATE** with others productively


**MOVE** their bodies to achieve goals


STREAM Skills


**SCIENCE**

**TECHNOLOGY**

**READING**

**ENGINEERING**

**ART**

**MATH**

The STREAM: Integrated, Intentional, Interactions
(STREAMin³) curriculum model² is a comprehensive, integrated curriculum package that focuses on the development of **five Core Skills** that form the building blocks for later learning across **six STREAM Skills** to prepare children for kindergarten (see the charts above for lists of skills). The STREAMin³ model consists of several key components, including a variety of classroom activities and routines, intentional teaching practices, assessments, group professional development, and individualized coaching for teachers.

How closely do teachers implement a curriculum as it was intended?

How often and how well evidence-based practices are used is measured by “fidelity,” meaning how well a practice is implemented as intended. Fidelity measures may include perceptions, such as how a teacher views a practice’s usefulness and effectiveness. For evidence-based practices to be effective, teachers need to use them as intended — in other words, with fidelity.³

However, not much research has focused on how early childhood teachers implement new practices or curricula with fidelity, despite big financial investments in improving early childhood programs across the United States.

To address this issue, we explored how teacher and program characteristics, including teacher attitudes and perceptions, were related to fidelity when implementing STREAMin³, a new comprehensive curriculum for classrooms serving children ages birth to five years old

Understanding Teachers’ Beliefs.

In this study, we wanted to understand how teachers’ beliefs about:

- 1) the STREAMin³ curriculum
- 2) their own effectiveness as teachers
- 3) their stress levels, and
- 4) their work environments at their early childhood centers

In Relation To:

- STREAMin³ curriculum implementation at the beginning of the year
- changes in STREAMin³ curriculum implementation over the school year

Details About the Study

Our sample included 87 lead infant, toddler, and preschool teachers from 34 state-funded,

Head Start, and private programs. We used data from 2019 and 2020, prior to program closures due to COVID-19.

Data were collected as part of a larger pilot evaluation study of STREAMin³, which included teachers across Virginia.⁴ Highly qualified STREAMin³ coaches supported teachers by providing practice-based coaching, which involved regular observations, meetings, check-ins, and group professional development sessions.⁵

We measured three aspects of fidelity:

- 1) the amount of coaching provided,
- 2) how many days per week STREAMin³ components were implemented, and
- 3) how much teachers enjoyed the curriculum.

“The STREAMin³ curriculum is an amazing tool that can be used by educators to better shape their daily interactions with children. It’s made me much more conscious of how I speak with, play with, and instruct my students and that has made me more confident in the classroom.”

– Teacher

What We Learned:

What Teachers Think Matters

Individual teacher beliefs and experiences can predict how a curriculum will be used by those teachers.

1. **How much teachers, at the beginning, liked or disliked the curriculum predicted if and**

how they used the curriculum throughout the year. When teachers had more positive initial perceptions of STREAMin³, they liked the curriculum more, attended more coaching meetings, and reported using more parts of the curriculum in their classroom.

2. **Teachers’ stress levels and opinions of their child care centers were not as related to curriculum implementation.** However, teachers who were less stressed at the outset were more responsive to STREAMin³ as time went on. And teachers who felt their center was a positive work environment attended more coaching meetings over time.
3. **Teachers with more years of teaching experience implemented fewer classroom activities and were less responsive to the curriculum at first.** More experienced teachers may be more hesitant to try new practices, especially if they believe what they are currently doing in their classrooms is working well for them and meeting the needs of their students.
4. **Teachers at public centers reported higher implementation fidelity compared to teachers at private and faith-based centers.** Private centers face challenges different from public centers, including higher turnover, lower pay, and fewer resources, all of which undermine fidelity.⁶ These findings suggest that supports for implementation, such as training and coaching, may need to use different approaches to more effectively engage teachers who have varying levels of experience and who work in different settings.

What We Recommend

Teachers’ initial perceptions of a curriculum matter; teachers who are more enthusiastic about a new curriculum are more engaged and more likely to fully use it.

WHAT THIS MEANS FOR EDUCATORS AND OTHERS IN THE EARLY CHILDHOOD FIELD

- **Training and professional development should be developed with teachers in mind.** Are teachers interested in the curriculum, and can they commit to it from the very beginning? Does the training and professional development directly address the beliefs and experiences of teachers, or does it merely address someone else's priorities?
- **Focus on the needs of teachers.** Explain the benefits of using a specific curriculum to teachers early in the process. Talk about how that curriculum can address individual teachers' specific needs.
- **Fully utilize the knowledge, experience, and feedback of teachers.** Leaders and intervention developers should involve teachers in designing, selecting, and implementing an intervention or curriculum.

WHAT THIS MEANS FOR POLICYMAKERS AND PROGRAM LEADERS:

- Understand the unique strengths and challenges experienced by teachers in different settings and types of programs.
- Try to involve all staff in designing, selecting, and implementing new programs.
- Vary implementation supports between teachers, based on their needs; some teachers may need more or less support than others.

WHAT MORE CAN WE LEARN? FUTURE CONSIDERATIONS IN EARLY CHILDHOOD RESEARCH:

- How can we recognize and meet the needs of teachers across settings, as well as support high-quality implementation and teaching?
- How can we support and encourage more experienced teachers to effectively implement new curricula?
- How do we include all early childhood staff, including teaching assistants, floaters, and program leaders, in decision about implementing new programs?

The research reported here was supported by the Virginia Department of Social Services, the Alleghany Foundation, and the Obici Healthcare Foundation through grants provided to the University of Virginia. The opinions expressed are those of the authors and do not represent views of the funders.

To learn more about these findings, please see our article published in *Prevention Science* at <https://doi.org/10.1007/s11121-022-01414-z>.

Should you require additional information, please contact Kelsey A. Clayback at kac5fd@virginia.edu. ♦

SUGGESTED CITATION

Clayback, K.A., Williford, A.P., & Vitiello, V.E. (2022). *What Teachers Think Matters. Early Childhood Teachers' Beliefs and Experiences Influence How Curricula Are Implemented*. <https://bit.ly/WhatTeachersThink-Matters>

ENDNOTES

1. Hamre, B. K., Justice, L. M., Pianta, R. C., Kilday, C., Sweeney, B., Downer, J. T., & Leach, A. (2010). Implementation fidelity of MyTeachingPartner literacy and language activities: Association with preschoolers' language and literacy growth. *Early Childhood Research Quarterly*, 25, 329–347; Pas, E. T., & Bradshaw, C. P. (2012). Examining the association between implementation and outcomes. *The Journal of Behavioral Health Services & Research*, 39, 417–433.
2. Williford, A. P., Matthew, K., & Hamre, B. K. (2018). *STREAMin³: Integrated | Intentional | Interactions*. An infant, toddler, and preschool comprehensive and integrated curriculum and professional development package. Unpublished curriculum, University of Virginia.
3. Elliott, D. S., & Mihalic, S. (2004). Issues in disseminating and replicating effective prevention programs. *Prevention Science*, 5, 47–53.
4. Williford, A., Matthew, K., Vitiello, V., Hummer, L., Clayback, K., Powell, C., & Bivona, M. (2021). *Implementation Evaluation of the STREAMin³ Curriculum Model*. Retrieved from https://stream-in3.org/wp-content/uploads/sites/4/2021/12/STREAMin3_SummativeReport.pdf
5. Snyder, P. A., Hemmeter, M. L., & Fox, L. (2015). Supporting implementation of evidence-based practices through practice-based coaching. *Topics in Early Childhood Special Education*, 35, 133–143.
6. Bassok, D., Michie, M., Cubides-Mateus, D.M., Doromal, J. B., & Kiscaden, S. (2020). *The Divergent Experiences of Early Educators in Schools and Child Care Centers during COVID-19: Findings from Virginia*. Retrieved from <https://files.elfsightcdn.com/022b8cb9-839c-4bc2-992e-cefccb8e877e/710c4e38-4f63-41d0-b6d8-a93d-766a094c.pdf>