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Elizabeth Foster (elizabeth.foster@learningforward.org) is senior vice president, research & standards at Learning Forward.

RESEARCH & EVALUATION

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RESEARCH STRENGTHENS CURRICULUM-BASED PROFESSIONAL LEARNING

Researchers and education leaders have long argued that professional learning is most effective when grounded in day-to-day instructional practices — that is, in what educators teach and how. Curriculum is a fundamental part of that equation.

Studies have found that increasing the quality and rigor of curriculum and instructional materials can lead to improved student outcomes, including achievement (Chingos & Whitehurst, 2012; Kane et al., 2016). But research also suggests that curriculum alone is not enough. It is the combination of high-quality instructional materials and high-quality professional learning that leads to improved outcomes (Blazar et al., 2019). Professional learning focused on these materials can amplify their impact if it is comprehensive, sustained, and well-designed, as described in the Standards for Professional Learning (Learning Forward, 2022).

Learning Forward has been committed to curriculum-based professional learning for years, as described in the white paper *High-Quality Curricula and Team-Based Professional Learning: A Perfect Partnership for Equity* (Learning Forward, 2018). That commitment is reflected in many aspects of our work, including the Curriculum, Assessment, and Instruction standard, which was added to the latest iteration of the Standards for Professional Learning, based on both individual research studies and meta-analyses of content-specific professional learning.

We are far from the only organization to recognize the importance of curriculum, but a recent review of the state of the field found that educators' knowledge about and implementation of curriculum-based professional learning is still emerging (Chu et al., 2022). "Emerging" is the first stage of a continuum developed by the consulting firm Bridgespan group that also includes "forming" and "evolving and sustaining."

Research is a key element of building any field, including this one. Rigorous studies comparing interventions take years to conduct and analyze. Even as this work continues, it is important to look to existing research for guidance about how to adopt or adapt curriculum materials, instructional strategies, and aligned professional learning. Of equal importance are practitioners' experiences with and insights about curriculum-based professional learning that can drive and inform future studies.

HOW THE CURRICULUM, ASSESSMENT, AND INSTRUCTION STANDARD EVOLVED

During the development of the current version of the Standards for Professional Learning, Learning Forward looked to research to craft the Curriculum, Assessment, and Instruction standard, including studies focused on professional learning, improving teachers' content knowledge and instructional strategies, changing educators' beliefs, and better understanding and implementing curriculum. Here are studies that informed the standard and that practitioners, researchers, and decision-makers can look to for further developing their knowledge base, curriculum implementation, and future research.

RESEARCH ON THE VALUE OF CURRICULUM-BASED PROFESSIONAL LEARNING

Novicoff & Dee, 2023: Professional learning to support the implementation of a literacy curriculum in California resulted in gains for teachers and students, including "significant (and cost-effective) improvements in ELA achievement in its first two years of implementation."

Lynch et al., 2019: A meta-analysis of 95 rigorous studies of STEM curriculum programs found that programs had stronger outcomes when they included help for teachers to learn to use curriculum materials, improve teachers' content knowledge and pedagogical content knowledge, and understand how students learn. In addition, summer workshops and teacher meetings focused on classroom implementation were correlated with stronger outcomes.

Taylor et al., 2015: A high-quality, inquiry-based high school science curriculum and aligned professional learning were designed with educative components — content built into the curriculum that is explicitly designed to support teachers’ learning and development. The study found moderate positive effects on teacher practice and student achievement.

Weiner & Pimentel, 2017: The Aspen Institute offers a review of research that links curriculum implementation and professional learning, describes examples, and offers recommendations for strengthening professional learning structures by focusing on implementing the curriculum.

INSIGHTS ABOUT IMPLEMENTING CURRICULUM-BASED PROFESSIONAL LEARNING

Short & Hirsh, 2022: *Transforming Teaching Through Curriculum-Based Professional Learning: The Elements* describes professional learning designs and enabling conditions that support educators in understanding the intent and components of a curriculum to focus on using the curriculum to provide effective instruction for all students. It also includes a review of foundational research underlying the authors’ framework of curriculum-based professional learning.

NIET, 2020: *High-Quality Curriculum Implementation: Connecting What to Teach With How to Teach It* offers six lessons from experience with district and school leaders, including:

- Ensure a focus on leaders.
- Create time, structures, and formal roles for ongoing, school-based collaborative professional learning.
- Use a rubric to guide conversations about teaching and learning with the curriculum.
- Anchor coaching and feedback in the curriculum.

- Recognize the stages of curriculum implementation and what teachers need to progress to higher stages.
- Ensure that districts work closely with schools to plan, communicate, and implement school-based professional learning that blends support for curriculum and instructional practice.

NEXT STEPS

Learning Forward continues to review the research on curriculum-based professional learning and apply it through our Curriculum-Based Professional Learning Network (see the article on p. 26). We also support districts’ curriculum-based professional learning in multiple content areas through professional services contracts.

This work is showing benefits for students and illuminating avenues for further research. The network is yielding improved math instruction and student math performance and providing opportunities to dig deep on specific structures and strategies that make the most difference. For example: What is the optimal balance of coaching teams and coaching individual teachers? What is the ideal balance of a coach’s expertise in the curriculum and coaching techniques?

As answers to these questions emerge and research on curriculum-based professional learning continues to grow, we will share key findings and insights to help you continue to improve your work and your students’ learning.

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