### Title of Study: Instructional Leadership, Teaching Quality, and Student Achievement: Suggestive Evidence From Three Urban School Districts

**Funder:** IES  
**Researcher:** Janet Quint, MDRC  
**Study Description:** This study is gathered evidence of the efficacy and usefulness of an intervention centered on leadership and aimed at improving teaching and learning among low-income, underachieving students. The research focused three districts that had been working with the IFL for one to five years, all the schools served large proportions of economically and educationally disadvantaged students and all the schools volunteered to participate in the study.  
**Key Findings:** Providing instruction-related professional development to school principals set in motion a chain of events that can improve teaching and learning in their schools. Principals who received more professional development were more actively involved in the professional development of their teachers. Teachers who got more professional development taught lessons that were of higher instructional quality. And schools where instructional quality was higher also had students with higher academic achievement.  

### Title of Study: The Role of an Intermediary Organization in the District Instructional Improvement: Early Experiences and Lessons about the Institute for Learning

**Funder:** Hewlett Foundation  
**Researcher:** Julie Marsh, Kerri Kerr, Gina Ikemoto and Hilary Darilek, RAND Corporation  
**Study Description:** This study analyzes three urban districts’ efforts to improve instructional quality and school performance and assesses the contribution to those efforts made by an intermediary organization, the Institute for Learning. Data were collected through extensive field interviews and focus groups conducted over a two-year period; RAND-developed surveys of elementary, middle, and high school principals and teachers; district and IFL documents; and demographic and student achievement databases.  
**Key Findings:** Analyses of district efforts to promote the instructional leadership of principals, support teacher learning through school-based coaches, specify curriculum, and promote data-based decision making identify common factors constraining and enabling instructional improvement. The research also shows that Institute for Learning, a third-party organization, can help facilitate policy alignment and build the capacity of district staff to lead instructional change.  
THE IMPACT OF THE IFL’S PROFESSIONAL DEVELOPMENT ON INSTRUCTIONAL LEADERSHIP, TEACHING QUALITY, AND STUDENT ACHIEVEMENT

Title of Study: Making and Re-making the Link Between Research and Practice: The case of the Institute for Learning
Funder: Spencer and MacArthur Foundations
Researcher: Meredith I. Honig, University of Washington and Gina Schuyler Ikemoto, University of Maryland
Study Description: A largely qualitative investigation, conducted over a five-year period, into how the Institute for Learning (IFL) at the University of Pittsburgh, partnered with multiple urban districts to help build district capacity for district-wide learning improvements. Findings elaborate specific features of the IFL’s adaptive assistance-based relationships and conclude with implications of the practice of district-wide learning improvement efforts and the role of intermediary organizations in the process.
Key Findings: This report presents our analysis of the Institute for Learning’s (IFL’s) efforts to link research and practice as part of its support to urban districts in strengthening teaching and learning for all students districtwide. The IFL’s main approach to linking research and practice at scale appeared far more locally responsive and dynamic than the implementation of a specific school reform model. The IFL’s work starts from the premise that research on how people learn should be used by district practitioners.

State-wide Training Efforts
Title of Study: The Impact of the 2012 TNCore Math Training on Teaching Practices and Effectiveness
Funder: Tennessee Department of Education
Researcher: OFFICE OF RESEARCH AND POLICY, Laura Neergaard Booker primary author
Study Description: In 2012, 200 Core Coaches who then went on to facilitate summer trainings nearly 30,000 of the state’s third through eighth grade math teachers. Coaches were Tennessee teachers selected via a competitive application and interview process. Coaches received eight days of intensive grade-level training provided by the Institute for Learning at the University of Pittsburgh, engaging with the material first as learners and then as teacher trainers. Coaches then delivered training to participants at three-day, grade-level workshops held throughout the summer.
Key Findings: Positive and significant effects of the IFL designed math training on participants’ instructional practice and on their effectiveness at raising student test scores. These results remain consistent using methods that control for previous year scores, school-level inputs, and for the fixed characteristics of teachers.
Gains in instructional practice ratings were largest for the practices emphasized in the training sessions, including skills such as questioning, providing academic feedback, and teaching problem-solving techniques.
Participants’ gains in effectiveness as measured by the Tennessee Value-Added Assessment System (TVAAS) translate into the equivalent of approximately one extra week of learning for each of their students than we would have expected had they not attended the training sessions.
https://www.tn.gov/education/topic/research-and-policy-briefs
EFFICACY AND DESIGN OF IFL INSTRUCTIONAL MATERIALS

**English Language Arts**

**Title of Study:** Developing and Implementing Core Secondary Instructional Program in English Language Arts  
**Funder:** Hewlett Foundation  
**Researcher:** Jane David, Bay Area Research Group  
**Study Description:** This study evaluates the IFL’s efforts to help LAUSD build and implement its core secondary school English Language Arts (ELA) instructional program and professional development system focusing on 9th and 10th grade ELA.  
**Key Findings:** The units were shown to be engaging and effective at improving both teacher practice and the quality of the student work. In all the classrooms where IFL ELA Units were implemented, students were fully engaged in the activities, whether it was discussing a reading in a small group, writing in a notebook, or participating in a whole class discussion. Teachers rarely talked to the whole class for more than a few minutes at a stretch.

One of the teachers described her reaction to teaching in this way: “I love that they create their own learning instead of me telling them what I think, my interpretation.” Another commented, “These lessons strongly scaffold and prepare students for necessary skills that they come to 9th grade lacking, and which also prepare them for success on the standardized tests.” An administrator observed, “Teachers are beginning to understand the connections between theory and practice. They are understanding how rigorous content can be made accessible for all students.”


**Mathematics**

**Title of Study:** Developing and Implementing Core Secondary Instructional Program in Mathematics  
**Funder:** Hewlett Foundation  
**Researcher:** Jane David, Bay Area Research Group  
**Study Description:** This study evaluates the IFL’s efforts to help LAUSD build and implement its core secondary school mathematics instructional program and professional development system focusing on algebra and geometry.  
**Key Findings:** The IFL Conceptual Lessons were shown to be engaging and effective at improving both teacher practice, student engagement and the quality of the student work.  
- Teachers and coaches rated IFL conceptual lessons as rigorous, high quality, and interesting to their students.  
- Teachers’ opportunities to work with their peers, both in the IFL sessions and in their schools, were highly valued. Teachers pointed to their math coach as their main source of support.  
- Teachers reported being better prepared after than before the IFL training to implement teaching practices embodied in the training such as effective questioning techniques, using the concept lessons, and having students work in groups.  
- Almost all teachers agreed that they expect students to explain more of their thinking, ask better questions of students, use a hands-on approach more often, and have higher expectations for their students.  
- Over two-thirds of the teachers reported that their students were more engaged in class and more likely to attempt open-ended questions on quarterly assessments.

THE EFFICACY OF THE IFL’S CONTENT-FOCUSED COACHING IN LITERACY AND MATHEMATICS

**Literacy Coaching**

**Title of Study:** Content Focused Coaching for High Quality Reading Instruction  
**Funder:** IES  
**Researcher:** Lindsay Clare Matsumura, Lauren Resnick, and Donna Bickel, University of Pittsburgh  
Brian Junker, Carnegie Mellon University

**Study Description:** In a longitudinal group-randomized trial, we explore the key role of the quality of classroom text discussions in mediating the effects of Content-Focused Coaching (CFC) on student reading achievement (2983 students, 167 teachers). Schools in the United States serving large numbers of minority and English language learning (ELL) students from low-income families were randomly assigned to participate in the CFC literacy-coaching program or to continue with the literacy coaching that was standard practice for the district.

**Key Findings:** Content-Focused Coaching not only proved to be effective but also more effective than the district’s existing coaching efforts. Teachers who received Content-Focused Coaching produced more high-quality discussions in their classrooms and their students scored better on their state assessments. Students with limited language proficiency showed larger gains than their native English speaking counterparts.


**Mathematics Coaching**

**Title of Study:** Coaching to Improve Common Core Aligned Mathematics Instruction in Tennessee  
**Funder:** IES  
**Researcher:** Jennifer Lin Russell, University of Pittsburgh

**Name of Partners:**  
The Learning Research and Development Center at the University of Pittsburgh (LRDC); the Institute for Learning at the University of Pittsburgh (IFL); Tennessee Department of Education (TDOE)

**Study Description:** The partnership will build upon the Common Core Coaching Model, which was developed for a series of summer trainings that directly targets improving the capacity of TN mathematics teachers to implement the Common Core in Grades 3 through 8. The CCM incorporates research-based findings regarding the critical role of content (mathematics) and how coaches and teachers learn to improve their practice. It includes three key components: (1) a framework of Essential Coaching Practices (based on IFL’s Content-Focused Coaching program); (2) tools to specify and scaffold coach uptake of the Essential Practices (e.g., a discussion protocol to guide post-observation conferences); and (3) tools to specify and scaffold teacher uptake of CCSS-M aligned mathematics instruction (e.g., lesson guides for aligned task sets). The partnership will test the feasibility and effectiveness of the CCM model in ongoing coaching throughout the school year.

**Key Findings:** While full results have not yet been published, preliminary data shows the maintenance of cognitive demand of teachers’ lessons over five coaching cycles that occurred in Years 1 and 2 of the project. By Coaching Cycle 5 (midway through Year 2), we found significant gains (ES = .73) on teachers’ capacity to maintain the cognitive demand of high-level mathematics tasks when examining the group of teachers who had participated in five coaching cycles across the two years of the project.

The Efficacy of the IFL’s Content-Focused Coaching in Literacy and Mathematics

Virtual Literacy Coaching

Title of Study: Web-mediated Literacy Coaching for High-quality Reading Comprehension Instruction
Funder: IES
Researcher: Lindsay Clare Matsumura, University of Pittsburgh
Richard Correnti, University of Pittsburgh
Donna DiPrima Bickel, Institute for Learning, University of Pittsburgh
Jason Downer, University of Virginia

Study Description:
Reading comprehension is critical to academic success, employment in the modern workplace, and to lifelong learning. Large numbers of students, however, are unable to read beyond a basic level of understanding. Recent studies indicate that comprehensive literacy-coaching interventions that combine formal learning opportunities for teachers (e.g., coursework) with individual coaching to support teachers’ implementation of new instructional strategies can successfully increase the quality of literacy instruction and student achievement. However, scalable applications of such interventions are limited. In this project, researchers will develop and study a web-based comprehensive literacy-coaching intervention designed to increase the quality of reading comprehension instruction for 4th- and 5th-grade. Researchers will build on a previous IES-funded Efficacy project in which an online course and in-person literacy coaching were found to lead to improved student reading achievement. Researchers propose to update the online course to align with the Common Core State Standards, develop a web-mediated version of the individual in-person coaching, and develop supports for teachers to use the technology as intended.

Key Findings:
While full results have not yet been published, early results suggest positive effects on reading instruction. Teacher surveys reveal that:
- Teachers report learning a great deal
- Content was applicable to their teaching context
- Online community was very supportive
- Coaching was more helpful than in-person coaching available to teachers
