Using Networked Improvement Communities to Improve Educational Practice

What is a networked improvement community?

What does it take to improve education at the school and district levels? Collaboration.

It takes real-world, face-to-face partnerships among a variety of stakeholders at the school, district, and state levels, with support from researchers. When a school or district notices an issue—for instance, its English learners aren't making the right gains or its achievement gaps aren't closing—bringing these stakeholders to the table allows for real conversations, real changes, and real improvement.

A networked improvement community (NIC) is just this: a group of stakeholders from diverse backgrounds solving problems together through a cycle of **Plan-Do-Study-Act.**

The cycle consists of four stages:

1. Identify specific areas of need (Plan).
2. Intervene to improve supports to address those needs (Do).
3. Measure any changes that occur (Study).
4. Refine the intervention (Act).

By using Plan-Do-Study-Act cycles, stakeholders can learn from one another about what works, for whom, and under what conditions.
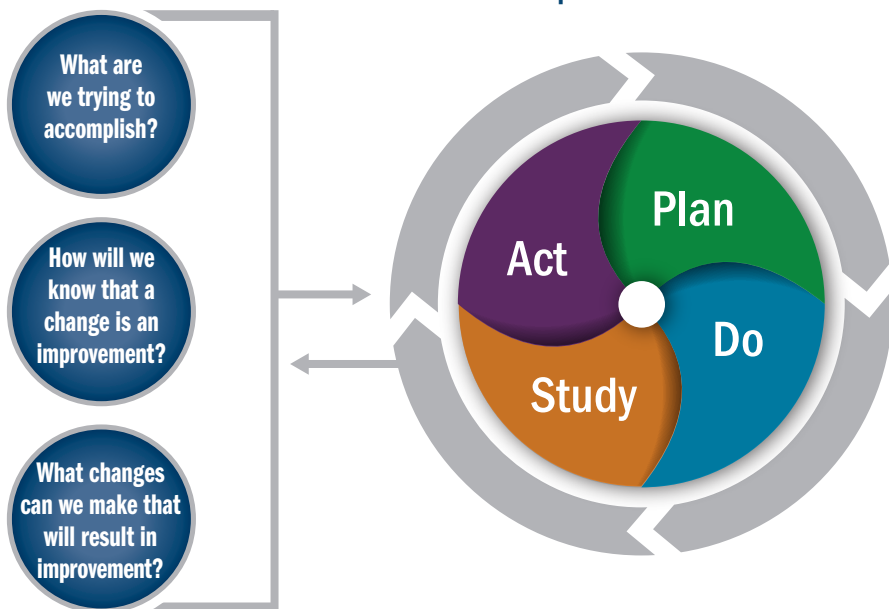
Why AIR?

We're the experts on improvement. Experts with American Institutes for Research (AIR) study the effectiveness of NICs and continuous improvement and know how to facilitate and study NICs.

A true partnership. When you work with AIR, you hire a partner, not a consultant. We believe that by including your stakeholders from the start—developing measures and collecting data together—everyone not only will be engaged throughout the improvement process, but will take ownership. We work closely with you to identify your pain points and your priorities.

One-stop shop. Our researchers and experts in practice—many of whom are former teachers—work closely to not only provide you with evidence-based best practices, but support your implementation of them.

The Improvement Process

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Learn more about AIR's work on networked improvement communities in Michigan through the Regional Educational Laboratory (REL) Midwest:

https://www.air.org/resource/using-networked-improvement-communities-improve-educational-practice

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A Selection of AIR's NIC Work

Network to Transform Teaching—The National Board for Professional Teaching Standards launched the Network to Transform Teaching in 2013 to improve student achievement in high-needs schools through access to National Board–certified teachers. AIR is studying the implementation and efficacy of this NIC at 10 sites.

Beyond Accountability Networked Improvement Community—Beyond Accountability is a NIC focused on improving teacher evaluation systems to better support teacher practice in four districts in the Southeast. Through a series of within-district and cross-district meetings, AIR has worked with each district team to identify context-specific challenges related to their teacher evaluation and professional support systems and to develop and test solutions to those challenges.

Michigan Focus Networked Improvement Community—During the 2015–16 school year, REL Midwest at AIR and school leaders in Michigan convened a NIC to reduce inequality in schools with the largest achievement gaps. The group engaged in Plan-Do-Study-Act cycles to determine the root causes of inequality and implement a change in practice to address those causes.

Supporting Teacher Effectiveness Project—AIR serves as the data and measurement partner for the Supporting Teacher Effectiveness Project. Through this work, AIR builds district and charter management organization capacity to use data to identify potential positive deviant practices and test whether those practices are associated with similar positive gains in student outcomes across classrooms.

Iowa Learning and Technology Networked Improvement Community—The Iowa Learning and Technology Networked Improvement Community brings together rural districts in Iowa, and the area education agency that serves those districts, to engage in inquiry cycles to identify effective ways of integrating technology into instructional practice. Over five years, AIR will conduct six coaching sessions for the Iowa NIC to support the development and implementation of PDSA cycles.

100Kin10—AIR is supporting two NICs in conjunction with 100Kin10 to address the challenge of increasing the reach and quality of engineering and computer science education in New York. Each NIC comprises nine to 10 organizations committed to building a shared understanding of what works, for whom, and under what conditions. AIR supports participants in developing measures and collecting and analyzing data to inform their ongoing improvement efforts.

Better Math Teaching Network—In 2015, AIR developed the Better Math Teaching Network—a collaboration among researchers at AIR and mathematics teachers and instructional leaders across New England who are committed to improving teachers' capacity to engage in student-centered mathematics teaching. As the network lead, AIR guides participants through continuous improvement cycles, with the aim of improving student-centered mathematics instruction, providing more equitable access to student-centered mathematics learning opportunities, and improving student engagement and problem-solving skills. AIR researchers contribute their expertise in continuous improvement research methods and their deep knowledge of student-centered mathematics instruction.

Student Agency Networked Improvement Community—AIR, in partnership with New Tech Network, launched the Student Agency NIC with four Midwestern districts. The purpose of the NIC is to identify instructional strategies that promote different aspects of student agency (e.g., self-efficacy, self-regulated learning, and persistence). The NIC also will explore whether the strategies are equally helpful for different subgroups of students. AIR will work with the NIC members to build their capacity to develop formative measures of student agency and to systematically test whether the instructional strategies are associated with increasing student agency. Through the NIC, members will plan to scale the evidence-based strategies they identify.