Collaboratively Implementing ‘Improvement Science’ to Accelerate School and District Improvement

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Overview

Within this presentation, we discuss...

- The current challenges facing school districts seeking to engage in sustained, continuous improvement
- Networked Improvement Science as a best practice to accelerate systemic improvement
- Collaborative efforts underway between EVSC and IU to develop, test, and expand the use of this model in partnership with the Carnegie Foundation for the Advancement of Teaching
- Opportunities for Indiana to be a leader in using Networked Improvement Science
“If we really want to get better, we have to make getting better matter again and this is really a way to do it.”

EVSC School Administrator
Focus Group Conducted on January 2019
Challenges Facing Indiana School Corporations

- The underlying causes of the challenges facing Indiana School Corporations are more complex than we have traditionally approached in education. We must be evolving organizations with a belief we are not where we should be.
- To achieve our desired results, we have to do the hard work of creating a culture of continuous improvement that functions in short, agile cycles.
- Beliefs drive actions. So do systems. Leaders have to do the hard work of aligning work systems to drive the improvement culture necessary to scale and sustain improvement process for years to come.
- We have to empower and train individuals in our enterprise to question the way things have “always been done,” identify problems, root causes, create aims and tackle change ideas to achieve them.
- We do not have a systemic way to learn from one another and build upon each others’ work as part of a larger ecosystem.
- Educator training does not typically involve this type of preparation (systems thinking).
- Continuous improvement takes time to become embedded in the culture.

There is an opportunity to think differently about improvement in Indiana.
Reframing Improvement

We need to reframe improvement-related conversations so that they focus on . . .

- Learning how to implement complex ideas effectively, reliably, and at scale
- Developing capacity within the education system to learn and improve
- Moving from fidelity of implementation to integrity of implementation
- Expanding our ability to manage variability
Networked Improvement Science

- Networked Improvement Science integrates two proven methods of process improvement into educational organizations
  - An approach to problem identification, solution design, and testing conducted within the context of a Plan-Do-Study-Act (PDSA) Cycle
  - An approach to social learning, communication, and networking that facilitates the rapid identification of the most plausible and effective change ideas, which is called a Networked Improvement Community
- These methods are orchestrated by a “hub” which seeks to coordinate, sustain, and develop this process within and across organizations
- The intention is to create a system that thinks, acts, and interacts in an aligned manner on issues of continuous improvement
Improvement Questions

What’s the problem we are trying to solve?

How will we know whether our change represents an improvement?

What change can we make to achieve the aim/goal we set?
# Four Key Improvement Tools

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<th>Tool</th>
<th>Description</th>
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<td>Fishbone Diagram</td>
<td>Assists users in identifying the underlying causes of a particular problem or performance concern.</td>
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<td>Driver Diagram</td>
<td>Assists users in unpacking the causal connections between a change idea and the performance goal or aim.</td>
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<td>PDSA Cycle</td>
<td>Assists users in testing, adopting, refining, or abandoning change ideas.</td>
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<tr>
<td>Networked Improvement Communities</td>
<td>Assists users at different levels of the system in sharing information about what’s working to support the particular aim.</td>
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Rethinking Measurement

- Instead of waiting for the data to arrive, improvement science encourages users to identify measures that are relevant to immediate performance outcomes.
- The intent of measurement becomes “encourages deeper learning” - it creates accountability by placing the onus of improvement on the individual user.

“If I care about the issue enough to identify it as a problem, I will work harder to improve it.” - EVSC Teacher, Focus Group, January 2019
What’s the problem IU was trying to solve?

IU School of Education was not adequately supporting educators and engaging with school corporations across the state on issues of continuous educational improvement.
IU NOT SUPPORTING DIST. IMPROVEMENT IN INDIANA

Program and Curriculum
- No professional learning options related to district or school improvement
- Course content emphasizes licensure requirements, not practical needs
- One “data” course in program
- Courses focused on problem identification, not improvement actions
- P-16 center has become teacher focused
- No improvement Partnerships in Indiana
- District service not viewed as legit. scholarship

Resources
- No staff dedicated to school improvement
- Out of state competition and Title I pressure
- Emphasis on credit hour generation
- No connection to foundations or RPP funding
- Nothing to sell or offer to school districts
- IU has not adopted an Improvement model
- Fac. need training on new improvement approaches
- Uncomfortable with “coaching not telling”

Approach and Capacity
- No partnership model or philosophy
- No partnership
- Faculty lacked capacity to engage with districts

Relationships
- IU NOT SUPPORTING DIST. IMPROVEMENT IN INDIANA

Fishbone Diagram
Improve IU’s capacity to support educators, schools, and districts in leading improvement.

**Driver Diagram**

**Primary Drivers**
- University-based learning opportunities
- IHE-LEA Improvement Partnerships
- Teacher and principal professional learning
- Faculty development

**Secondary Drivers**
- Core Degree Programs
- Certificate Programs
- System-Level Collaboration
- School-Level Collaboration
- Summer Activities
- Academic Year Activities

**Change Ideas**
- Changes to Ed.D. Capstone
- Grad. Cert Imp. Science
- Changes to Admin. Internship
- IU-EVSC iLEAD Partnership
- IUSA-IU Partnership
- iLEAD Launch Sites
- Improvement Institute
- PDSA Clinics
- Carnegie National Faculty
- Online Mediated Course

**Aim**
Improve IU’s capacity to support educators, schools, and districts in leading improvement.
EVSC+IU Partnership

EVSC+IU Partnership aims to...

- Began in 2015 with a 25-member principal leadership cohort and expanded in 2017 with an Ed.D. partnership
- Partnership selected by Carnegie Foundation for the Advancement of Teaching in 2017 as one of 11 teams
- Partnership aims to develop, test, and expand the use of improvement science both within EVSC and between EVSC and IU
- Partners strive to think, act, and interact in an aligned manner on issues of improvement such that the capacities of K-12 and higher education are fully leveraged
- Long-term objective: powerful, equitable teaching and learning for every student
Early Outcomes

After four months, we are already beginning to see positive outcomes in schools:

- In two elementary classrooms, teachers used improvement to recover 3 hours of instructional time per week and are now repurposing that time for more rigorous, productive instruction.
- In one classroom, a teacher has since observed an increase in the number of students passing the summative math assessment and higher levels of student engagement.
- In one school, teachers across different grade levels have begun collaborating regularly (despite not having formalized vertical PLC time).
- Across our launch sites, principals are spending more time in classrooms and offering more feedback to teachers that aligns with the PDSA the teachers are working on.
“Getting good at getting better necessitates shifting from thinking of improvement as an intention to investing in formal methods to actually achieve it.”

- Carnegie Foundation