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Creating Conditions for Effective Teacher Development and Retention:

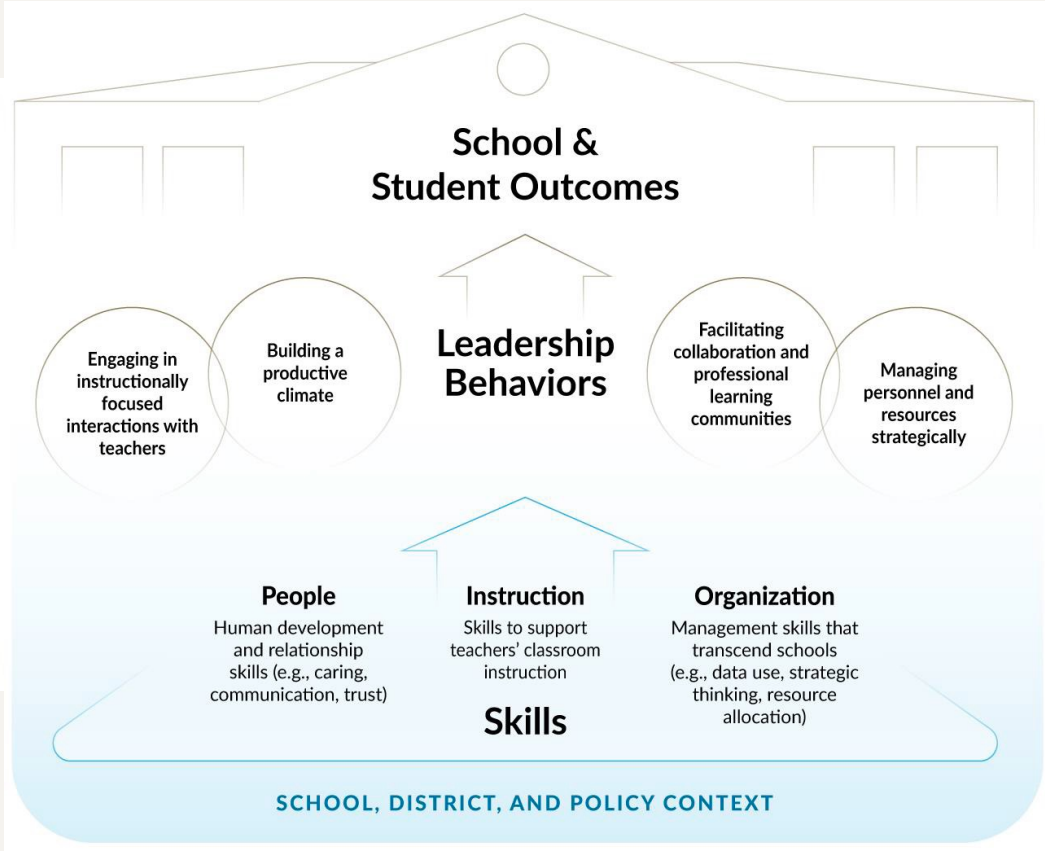
Opportunities and Challenges for School Leaders

Xiu Cravens

2024

What Do We need to Know about School Leadership

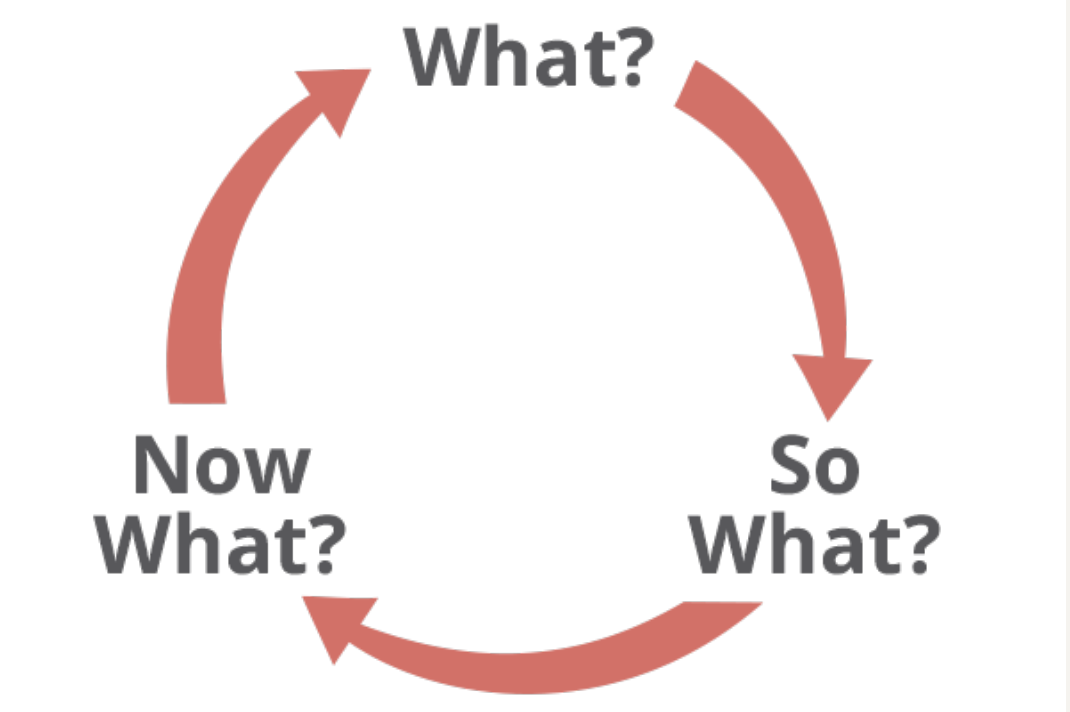
- The U.S. Perspective



https://wallacefoundation.org/insights/what-do-i-need-know-about-school-leadership

Now What?

- What can you do with this information?
- What direction do you want to take next?



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We Have the Same Target:

A high-performing educational system (OECD, 2010):

Superior performance = Access+ Quality+ Equity+ Efficiency

1. **Access:** percentage of students in school at the appropriate age
2. **Quality:** academic performance
3. **Equity:** correlation between student performance and their socio-economic background
4. **Efficiency:** per student expenditure

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A Focus on Equity

NAEP NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

Search NAEP

ASSESSMENTS & RESULTS | RESOURCES & DATA TOOLS | INFORMATION FOR... | PUBLICATIONS & NEWS | ABOUT | ASK A QUESTION

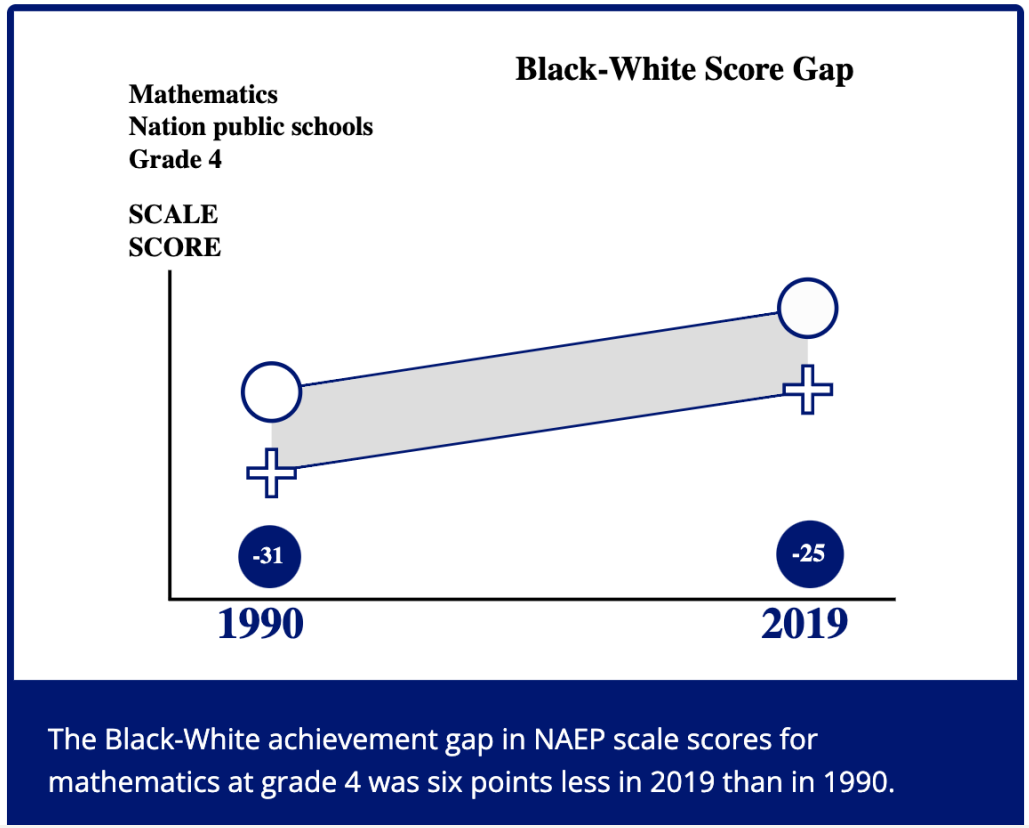
Explore Achievement Gaps Data

Explore achievement gaps data using the Achievement Gaps Dashboard, the NAEP Data Explorer (NDE), and the State Profiles Tool. The Achievement Gaps Dashboard provides a quick glance at trends and significant differences in assessment scores between two groups of students, while the NDE provides in-depth exploration of gaps in other subjects and in context of student factors. You can also find out more about the achievement gaps in your state compared to others by using the State Profiles Tool.

ACHIEVEMENT GAPS DASHBOARD

NAEP DATA EXPLORER

STATE PROFILE DATA TOOL



The Black-White achievement gap in NAEP scale scores for mathematics at grade 4 was six points less in 2019 than in 1990.

https://nces.ed.gov/nationsreportcard/studies/gaps/

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A Focus on Making Change

- To move beyond the mounting research evidence about the scope, causes, and consequences of inequality (descriptive and correlational)
- To build stronger bodies of knowledge on how to reduce inequality (causal)

https://wtgrantfoundation.org/focus-areas/reducing-inequality

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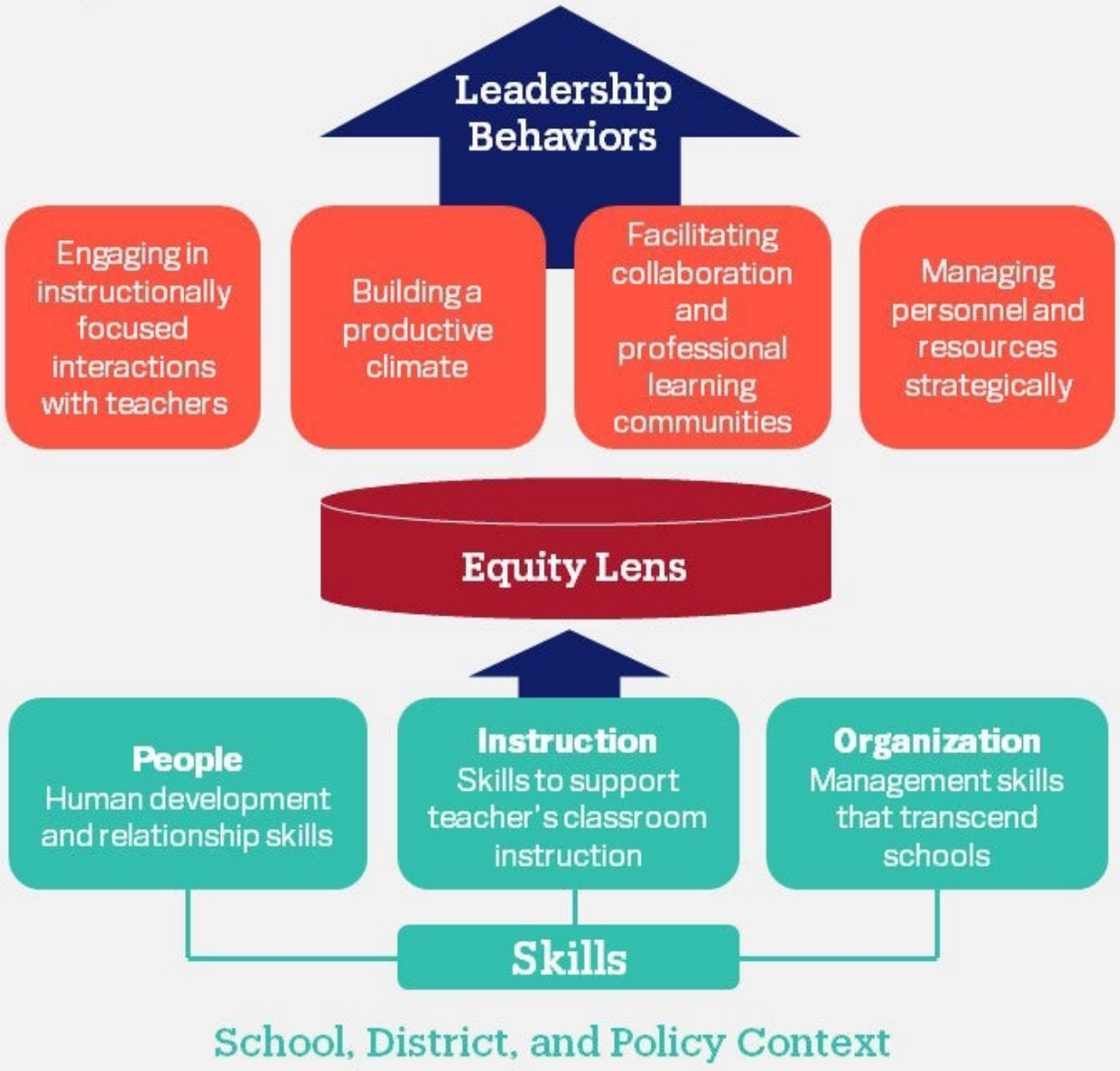
Equitable School and Student Outcomes



How do teachers teach?

- A 2016 study from the RAND Corporation finds that nearly every teacher in a nationally representative sample—99 percent of elementary teachers, 96 percent of secondary school teachers—draws upon "materials I developed and/or selected myself" in teaching English language arts or mathematics.
- And where do they find materials? Google (94 percent), followed by Pinterest (87 percent).

If this study is conducted today, what might be the results?

If you ask teachers in your schools, what might be the answers?

http://www.rand.org/content/dam/rand/pubs/research_reports/RR1500/RR1529/RAND_RR1529.pdf

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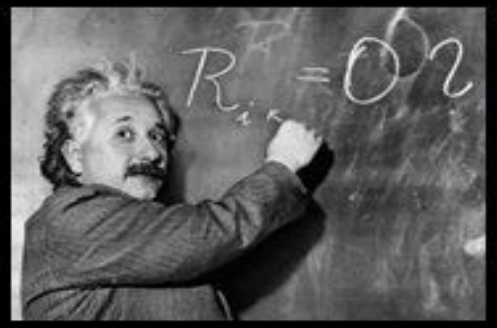
How do we ensure equitable access to quality instruction?

In many parts of the world, what and how children learn in school vary widely.

Such variation in access to quality instruction is highly correlated with student backgrounds and learning outcomes.

TEACHER

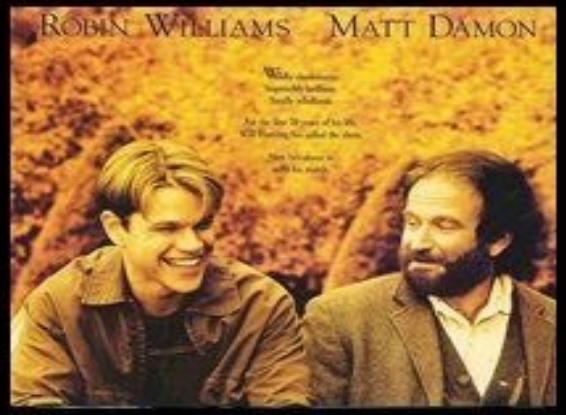
What my friends think I do



What my Mom thinks I do

What society thinks I do

What kids think I do



What I think I do

What I really do

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Is good teaching an art or a science?

"The closer that an instructional innovation gets to what takes place between teachers and students in classrooms, the less likely it will be implemented and sustained on a large scale."

Larry Cuban, 1988

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Beyond PD: Teacher professional learning in high-performing systems (Jensen et al., 2016)

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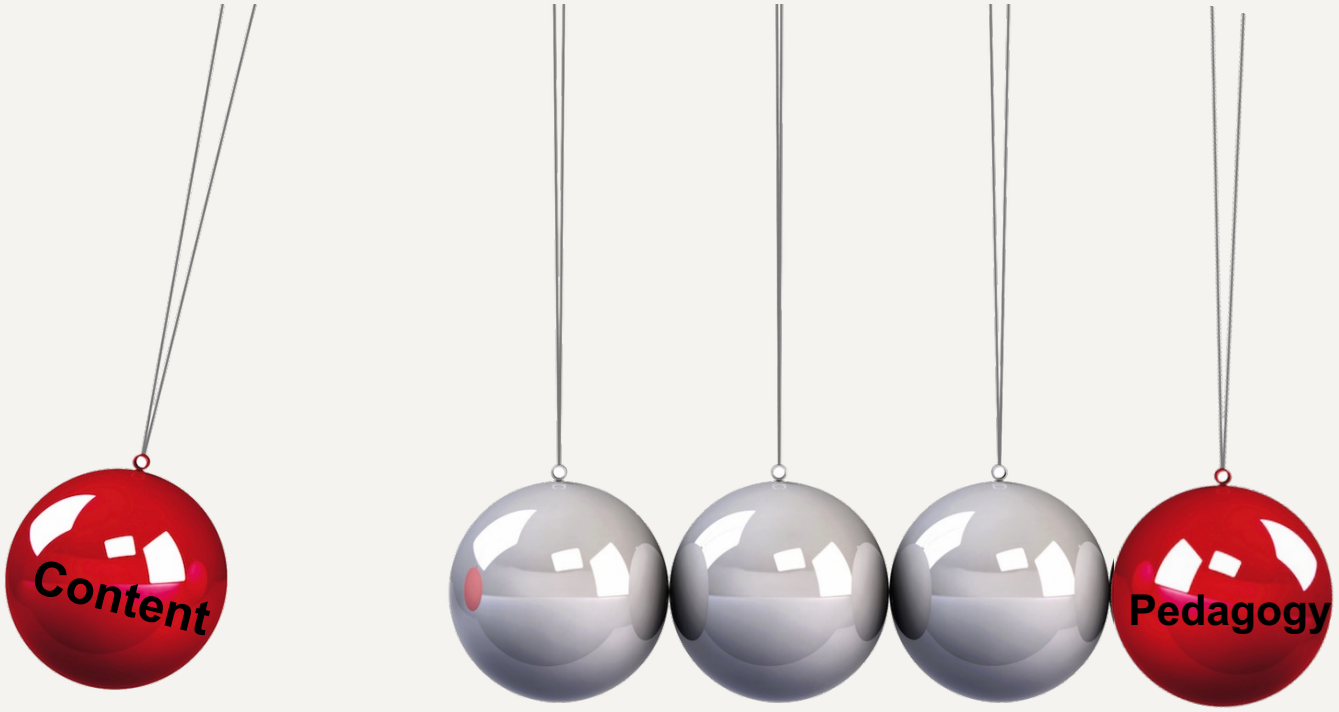
Lesson 1: What to learn



Professional learning is embedded in classroom experiences and also in teachers' specific subject area.

Lesson 2: How to learn

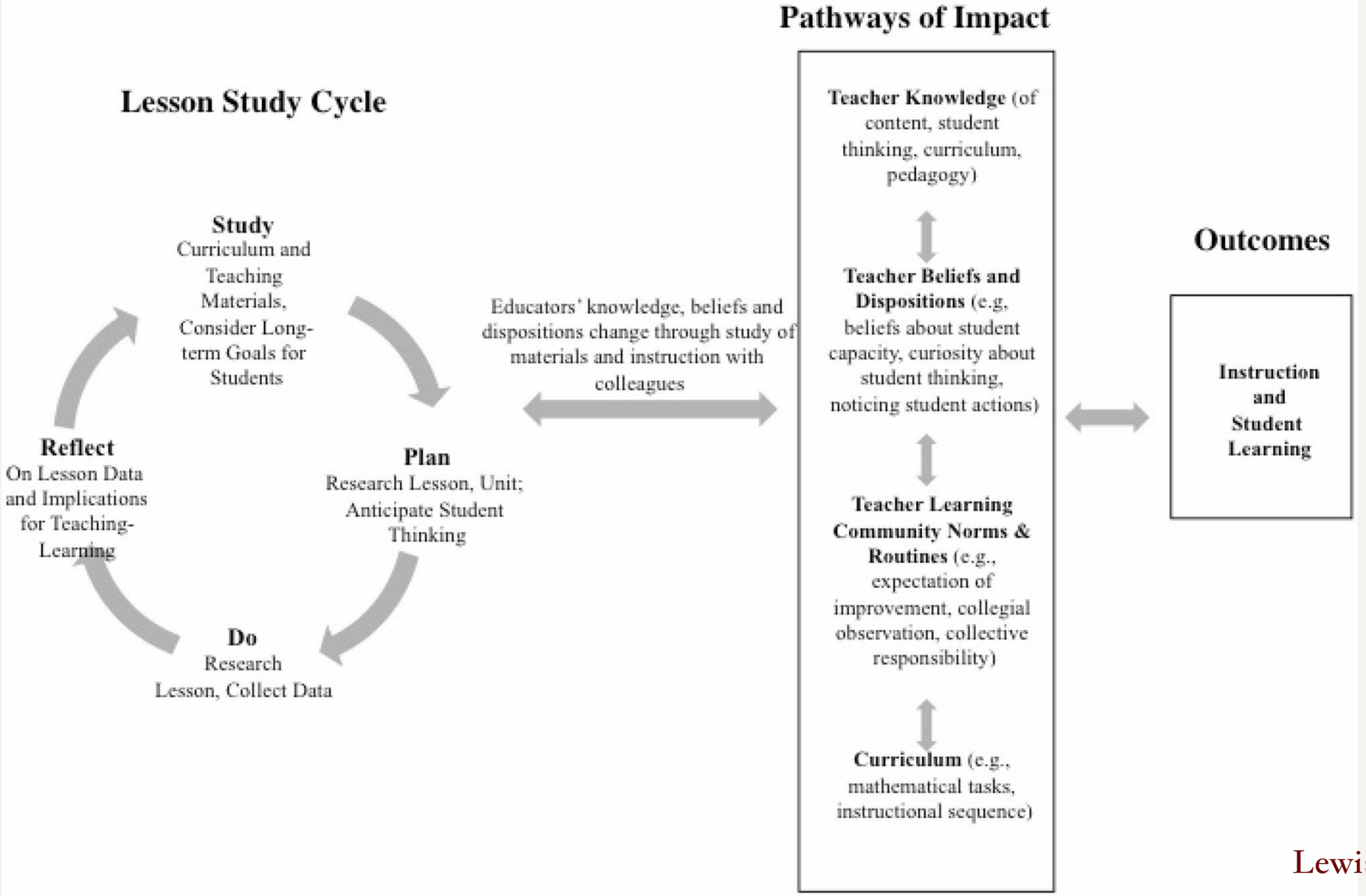
One good example is better than one hundred doctrines.

The power of peer-to-peer learning.

Lesson 3: From whom to learn

Give good teachers recognition and also responsibilities to develop and support peer teachers.

The Routine - Japanese Lesson Study



Lewis, C., 2016

The Routine - Teaching-Study Groups in Shanghai

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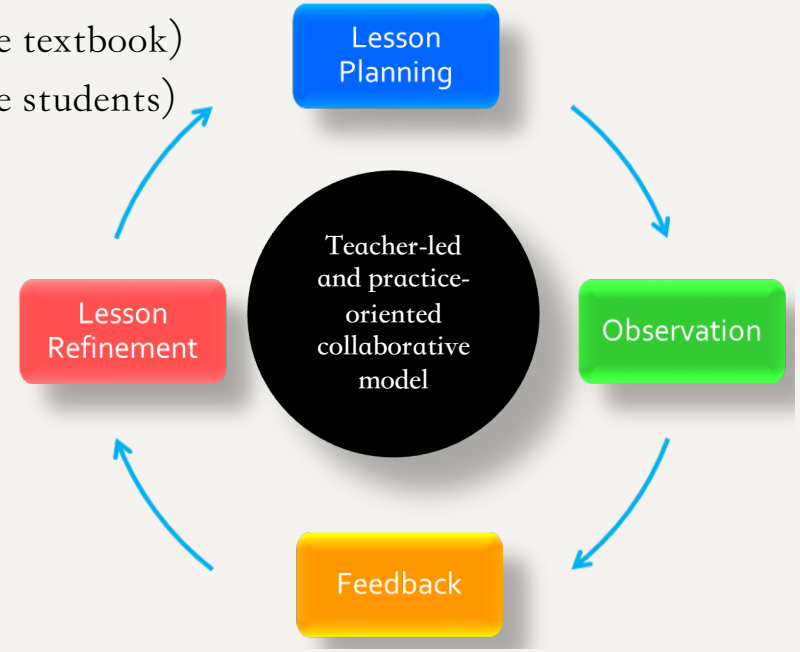
School

Teaching research activities

备教材(Preparation of the textbook)
备学生(Preparation of the students)



重建课
(Reconstruction lesson)

家常课 (Routine teaching, lesson not prepared for show)
推门课(Pushing-door lesson, observation without notice)
公开课 (Public lesson)
同课异构(Same lesson with different design)

…

情感态度、价值观(engagement, attitude and values)
过程与方法 (teaching process and pedagogy)
知识与技能 (knowledge and skills)

Walker & Qian, 2018; Wang & Cravens, 2017

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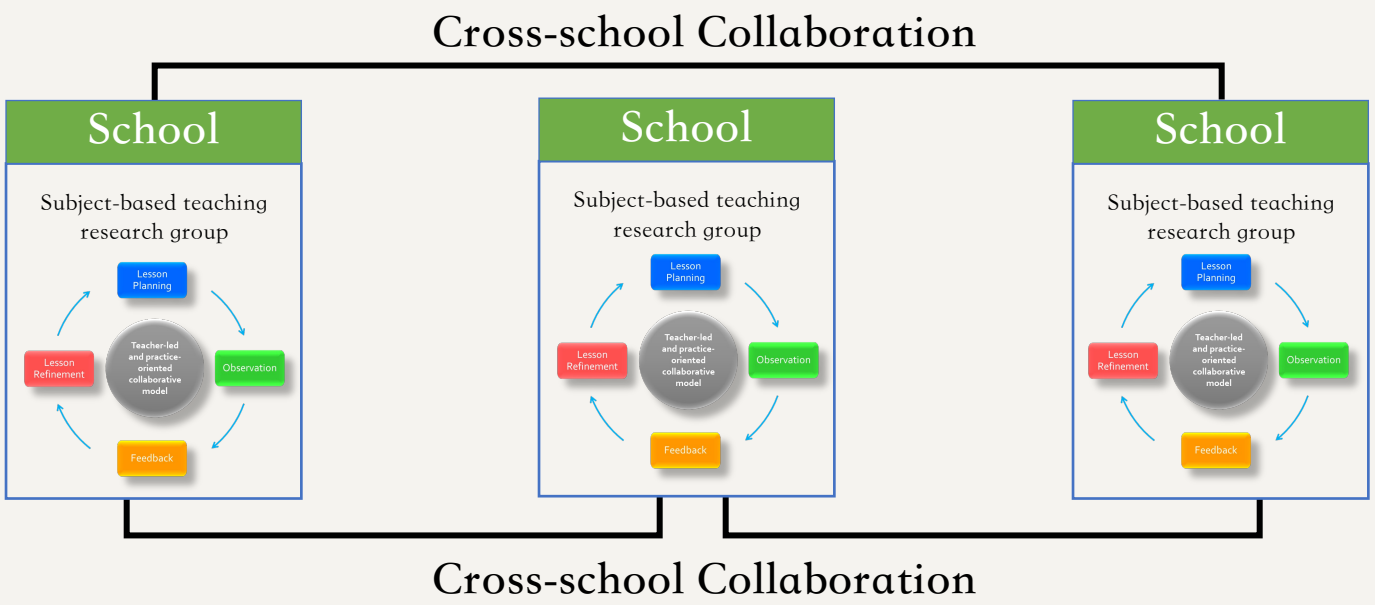
The System

Top-down support

Bottom-up initiative



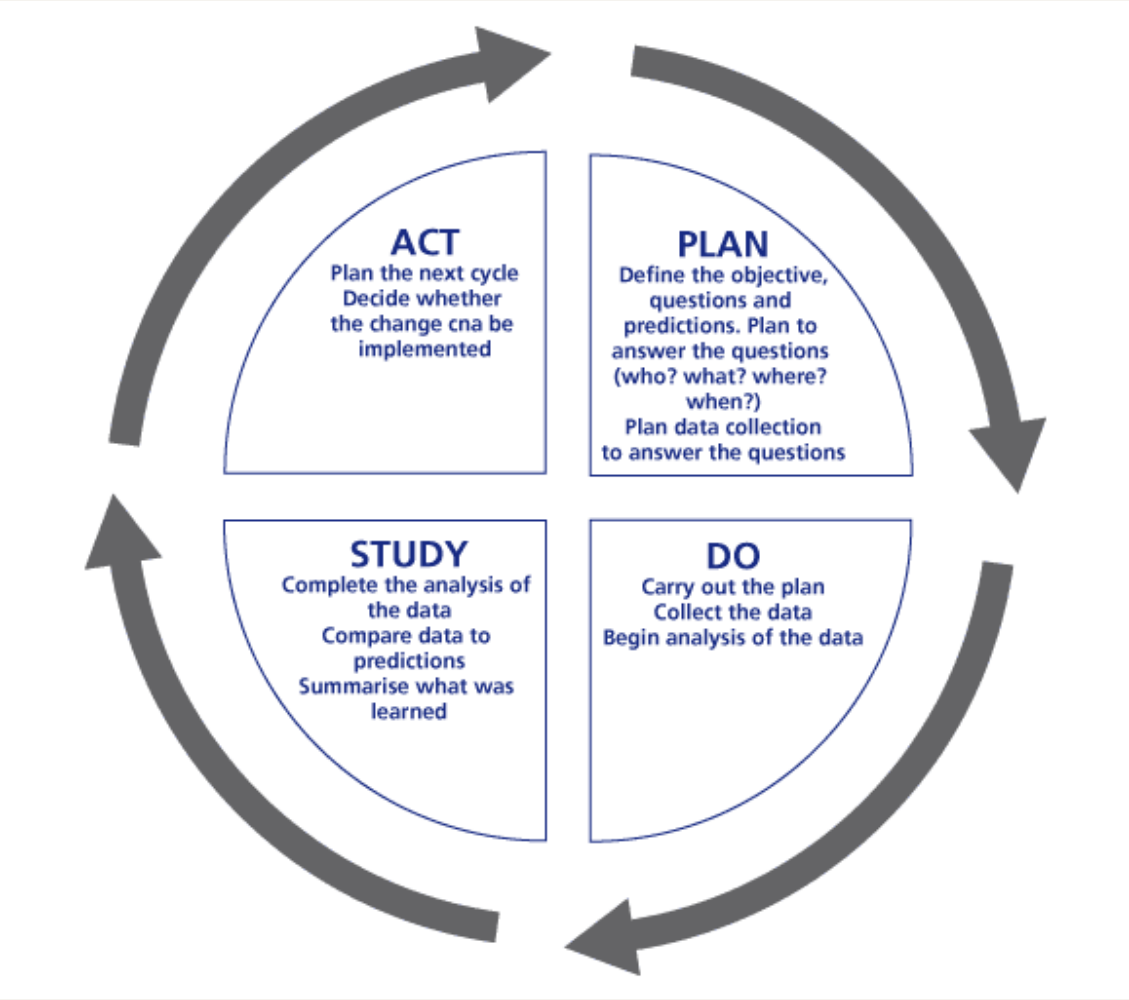
Jensen et al. 2016; Walker & Qian, 2018; Wang & Cravens, 2017

These Models Use an "Improvement Science" Approach

- A problem-solving approach
- Centered on continuous inquiry and learning
- Key components
  1. PDSA cycle
  2. Continuous and iterative testing and learning
  3. Networked Improvement Community
  4. Research-Practice Partnership

Adapted from Bryk et al., 2015

What is Improvement Science?

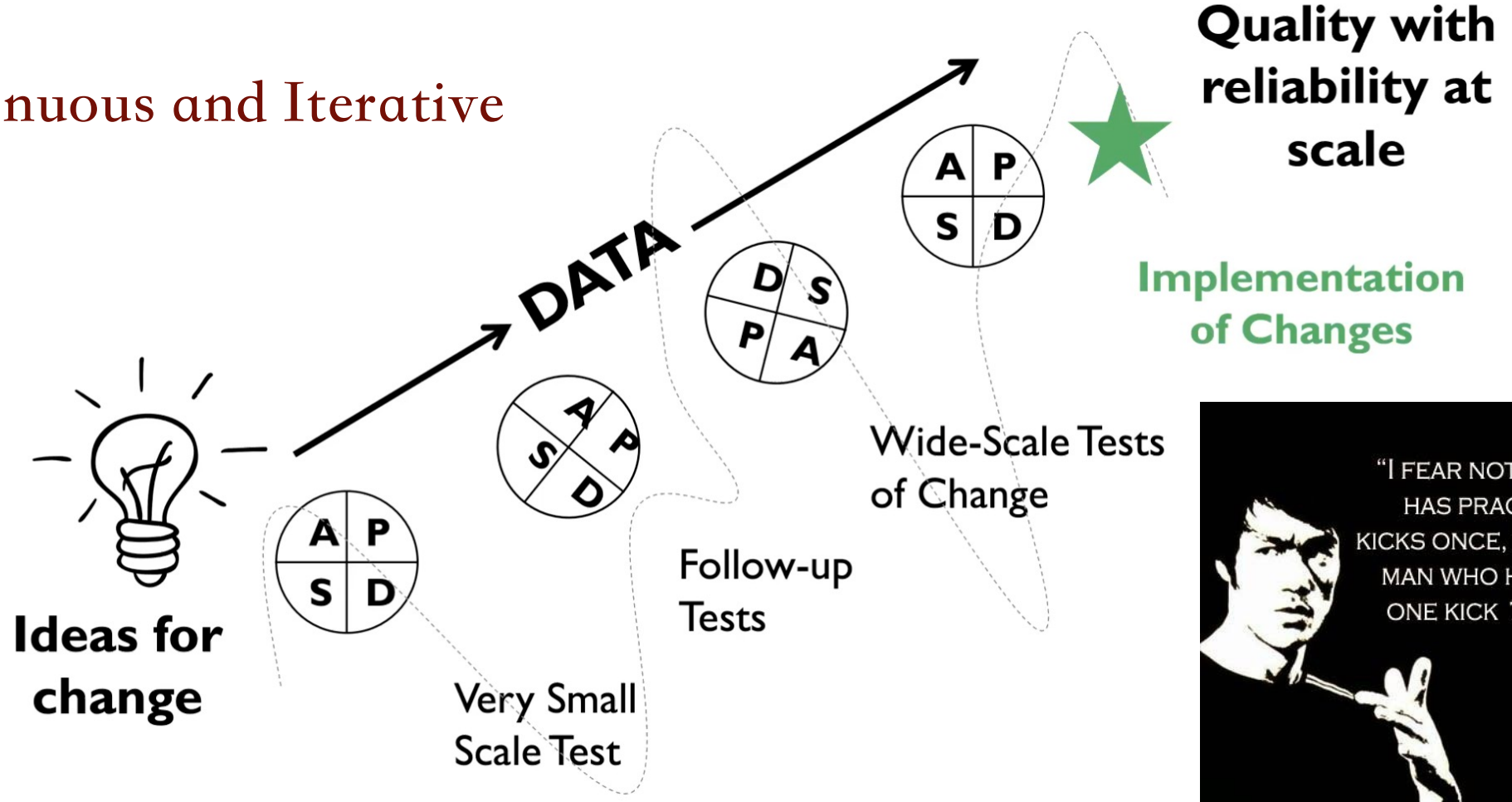


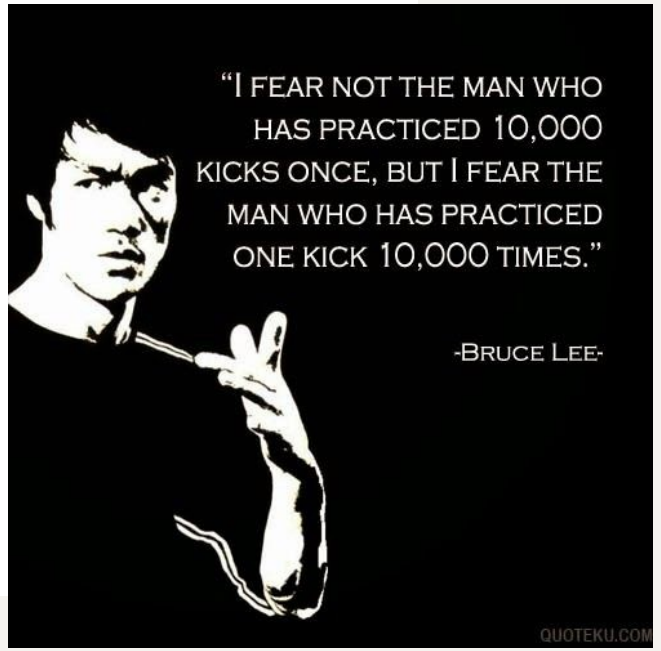
1. Disciplined Trial Cycle:

- Plan- system analysis and hypothesis formation
- Do- implement the new process with data collection
- Study- interpret the results
- Act- decide what to do next based on the results

What is Improvement Science?

2. Continuous and Iterative Testing





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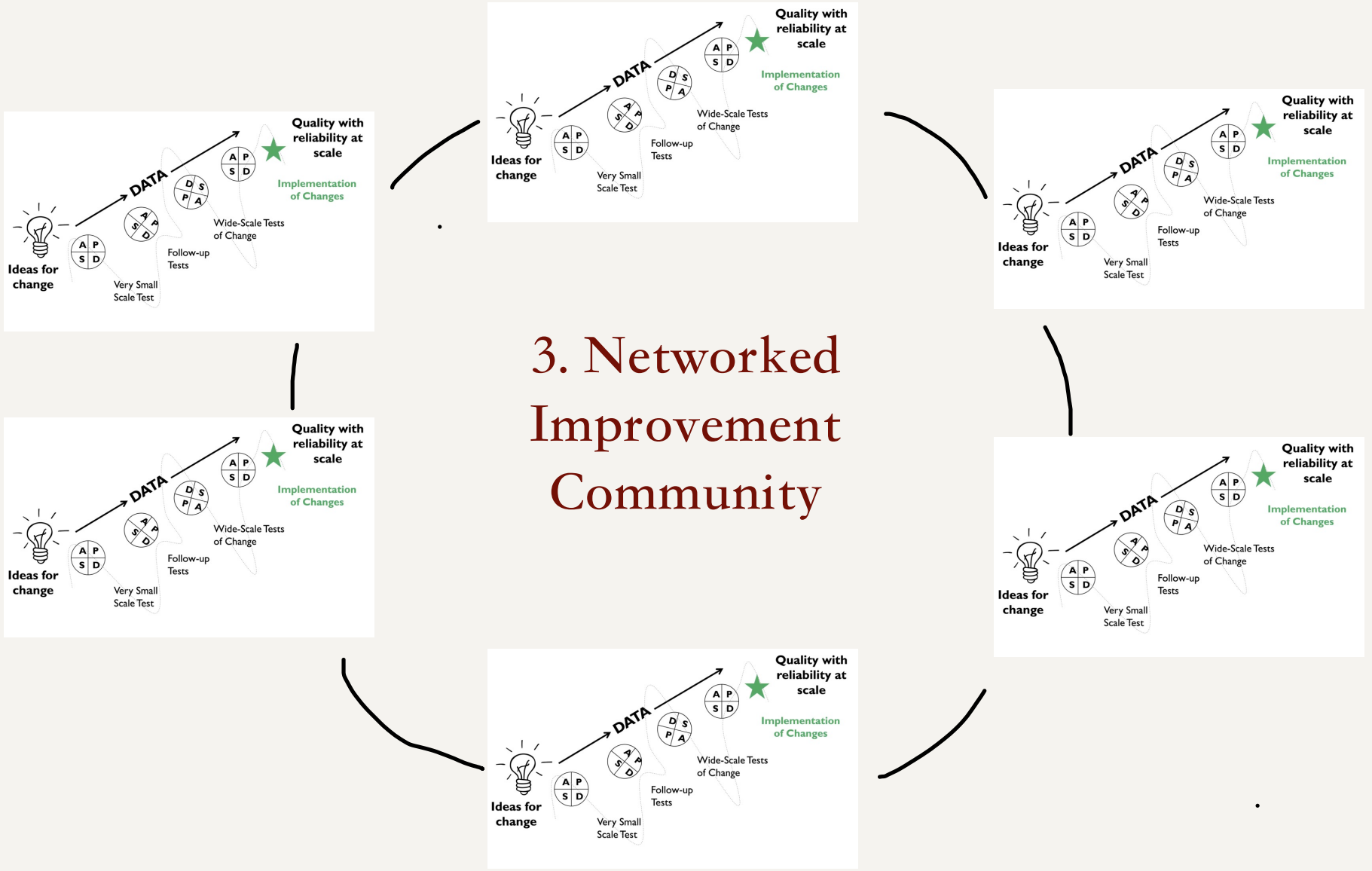
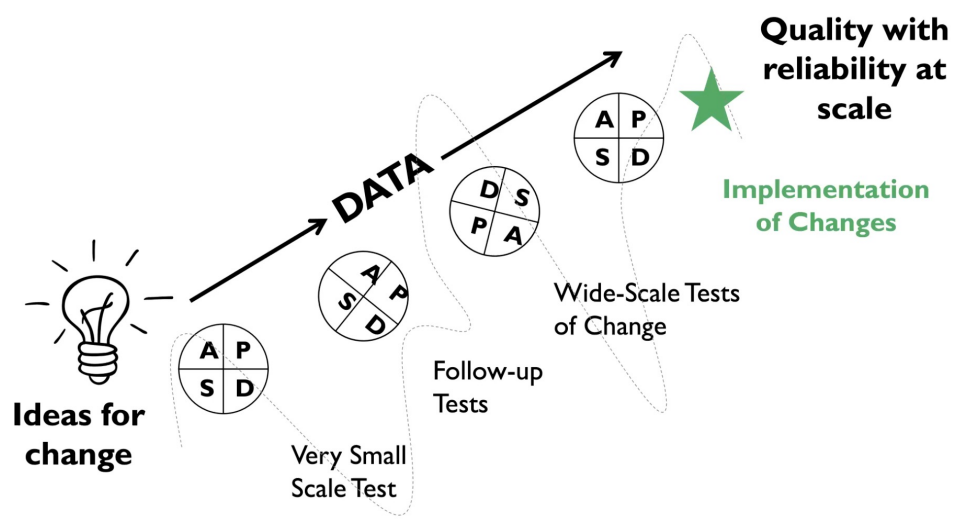


3. Networked Improvement Community

From Practitioner Knowledge to Professional Knowledge



Practitioner Knowledge

- Linked with practice
- Detailed, concrete, specific
- Integrated and organized around problems of practice
- Short-lived, not transferrable

Professional Knowledge

- Public/Peer Reviewed
- Storable and Shareable
- With a mechanism for verification and improvement

Hiebert et al., 2002

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What is the true values of attempting to import cultural routines from afar into one's own contexts?

三人行必有我师焉

When I walk along with two others, they may serve as my teachers; I will select their good qualities and follow them, their bad qualities and avoid them.

見賢思齊焉，見不賢而內自省也

When you see a worthy person, endeavor to emulate him. When you see an unworthy person, then examine your inner self.

Confucius (551 – 479 BCE)

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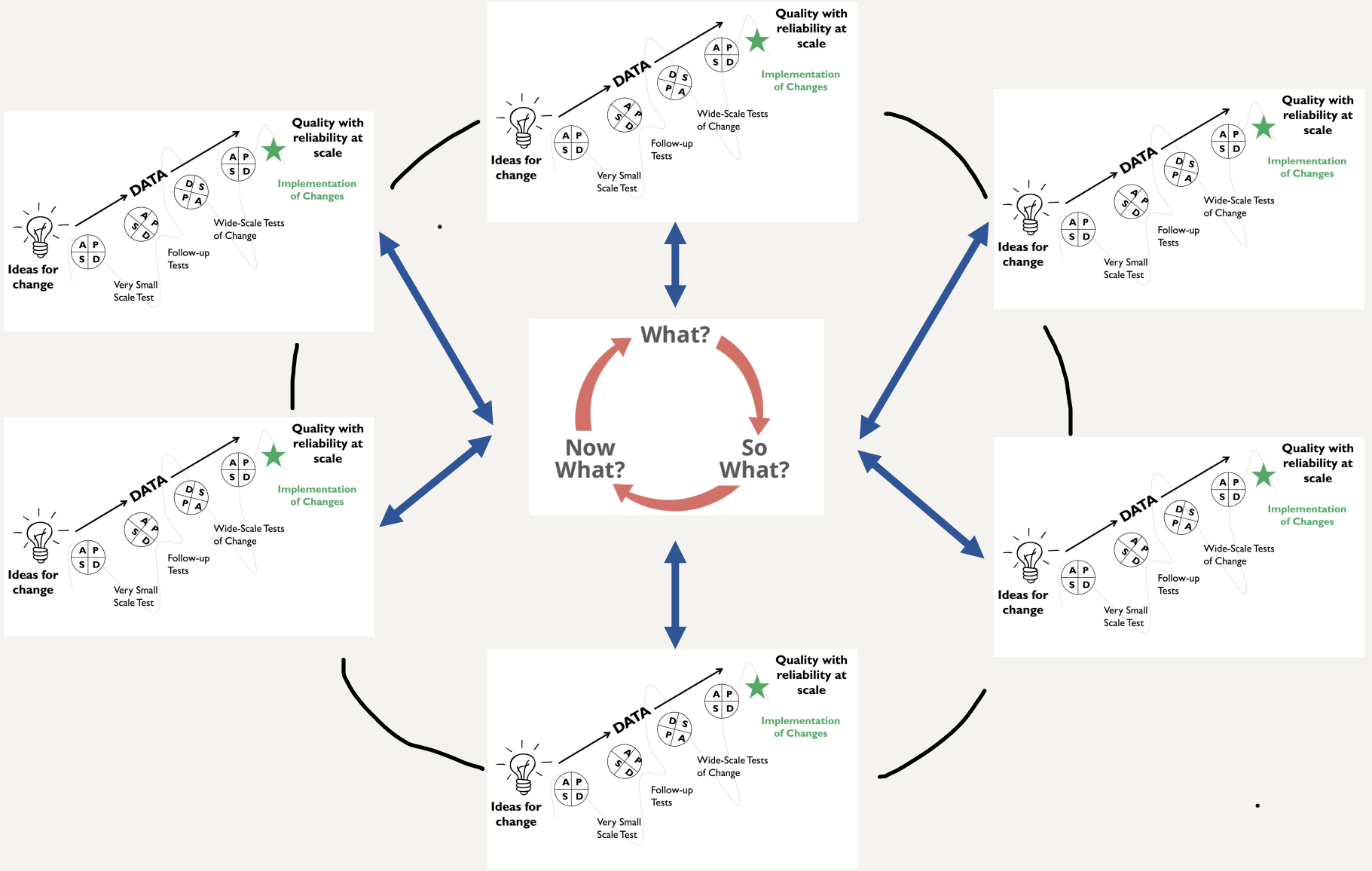
Improvement Science + Applied Research



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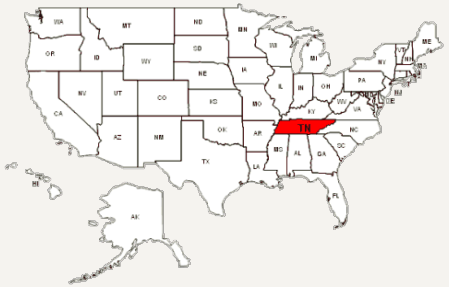
Example 1:
Cross-Cultural Leadership and Teacher Development

- Peabody College, Vanderbilt University
- East China Normal University
- Six school districts and 27 schools across Tennessee
- Principals in Shanghai's Minghang District

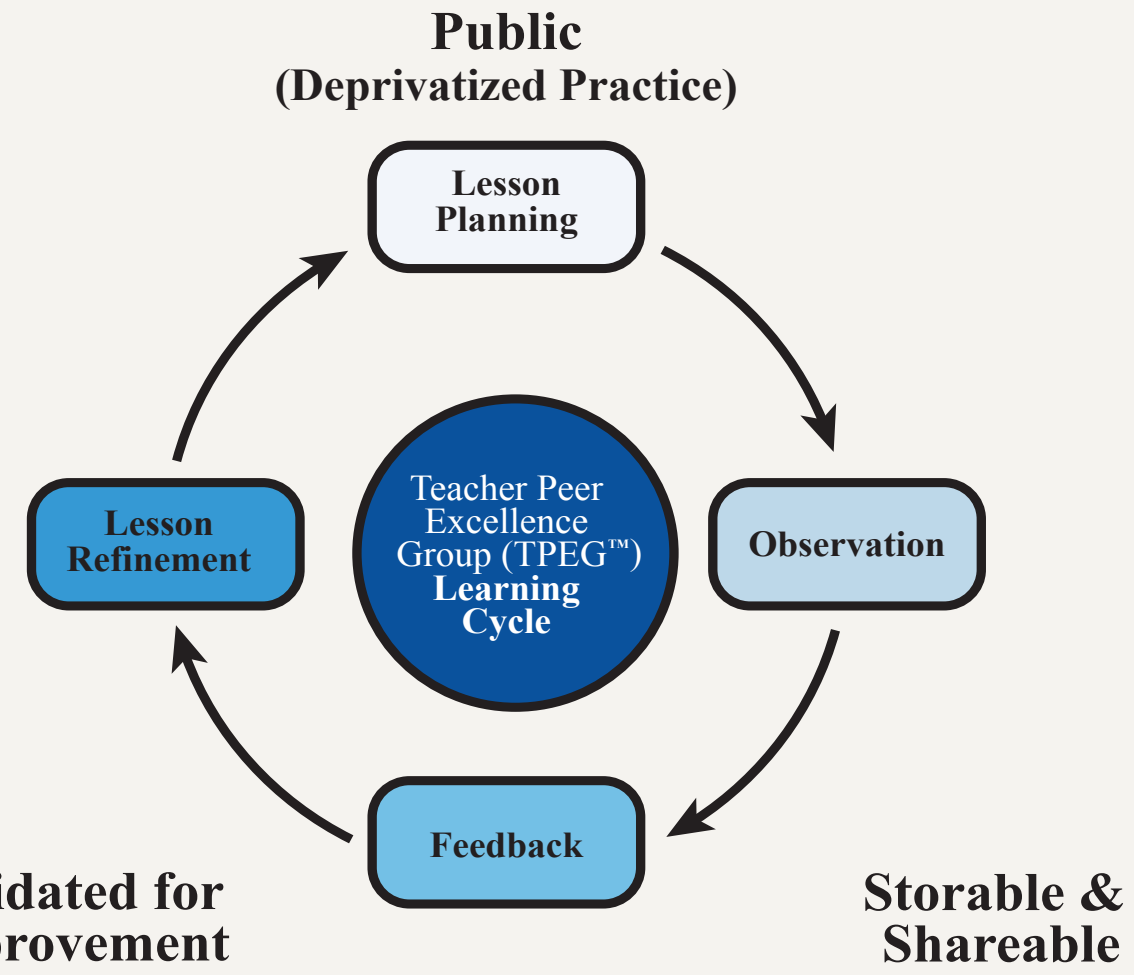
Funded by the Tennessee Department of Education and the Melinda & Gates Foundation (2013-2017)

TENNESSEE|SHANGHAI LEADERSHIP COLLABORATIVE



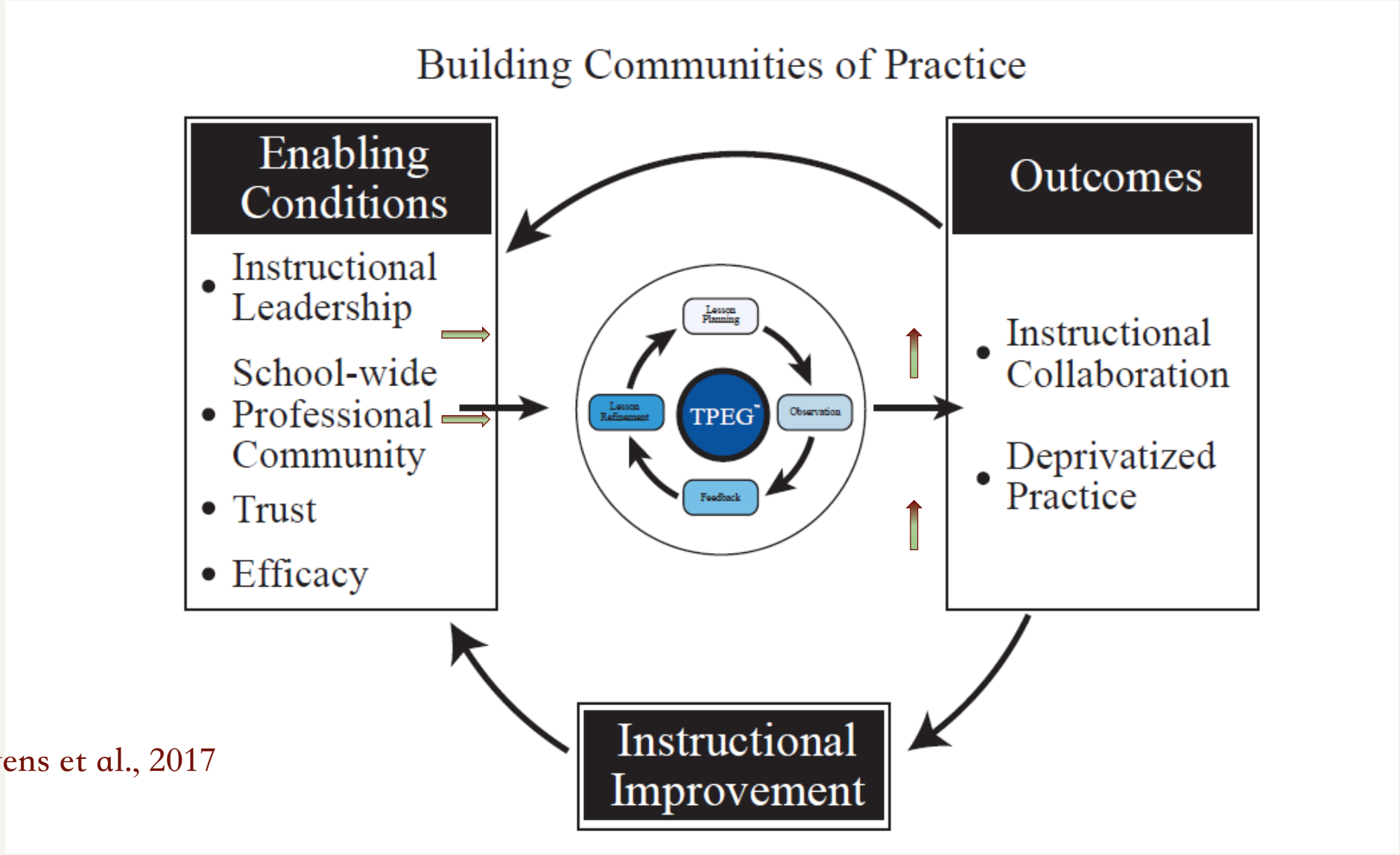
1. PDSA

Teacher Peer Excellence Group (TPEG)



Cravens et al., 2017
Hiebert et al., 2002

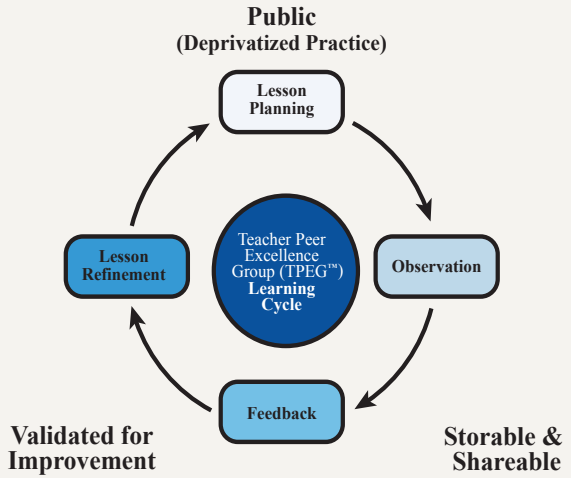
2. PDSA in a continuously improving system

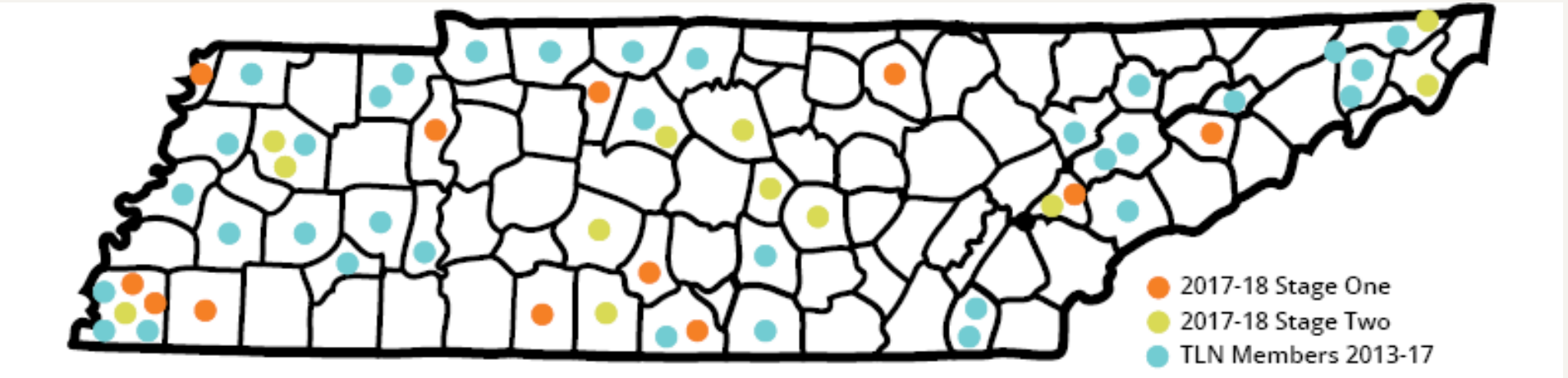


Cravens et al., 2017

3. Networked Improvement Community –
Tennessee Teacher Leader Network

- 6 districts in 2013-14
- 8 districts in 2014-15
- 15 districts in 2015-16
- 29 districts in 2016-17
- 24 districts in 2017-18





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Role of Principals

- **Facilitators**: indirectly support TPEGs through creating structures and allocating resources.
- **Directors**: directly involved in the work of TPEG by attending and, in several cases, leading TPEG meetings, take an active interest in creating and disseminating specific routines related to TPEG or teachers' instruction, participate in activities like lesson planning and modeling peer feedback.
- **Differentiators:** deliberately employe both facilitator- and director-like behaviors according to the needs of separate TPEGs.

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Assessing the impact of collaborative inquiry on teacher performance and effectiveness

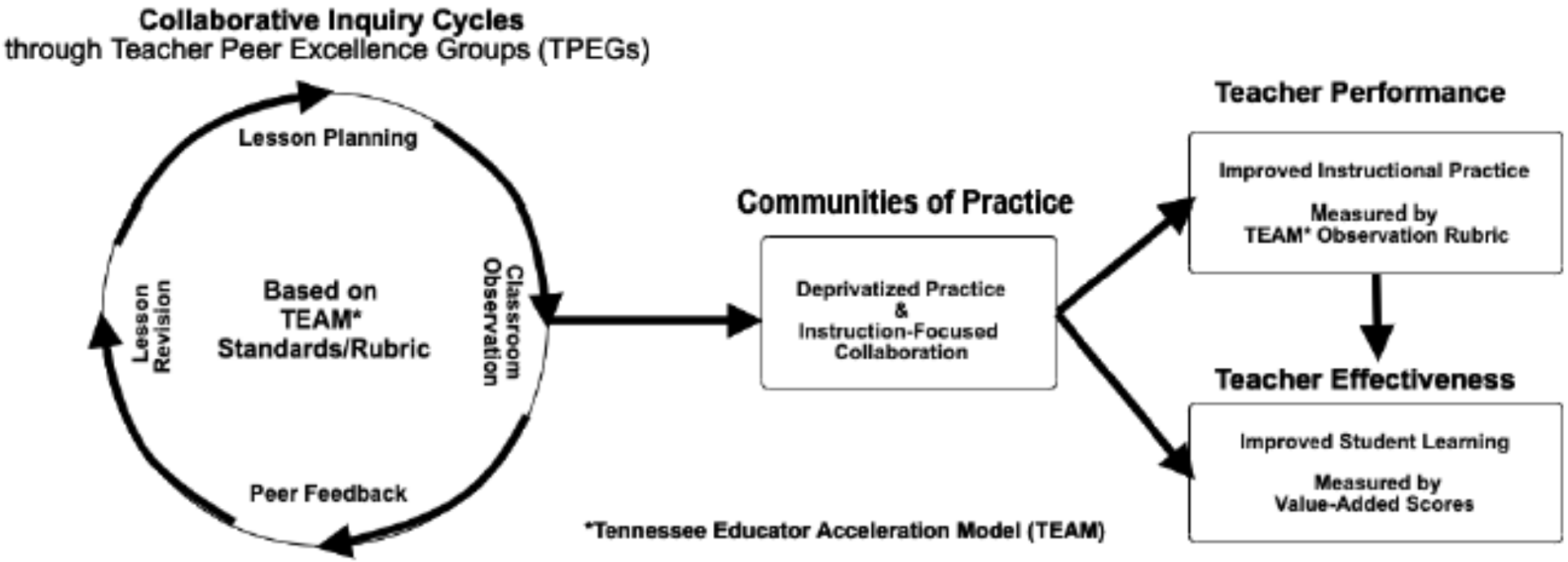


Figure 2: Assessing the Impact of Collaborative Inquiry Conducted by TPEGs

Cravens. & Hunter, 2021

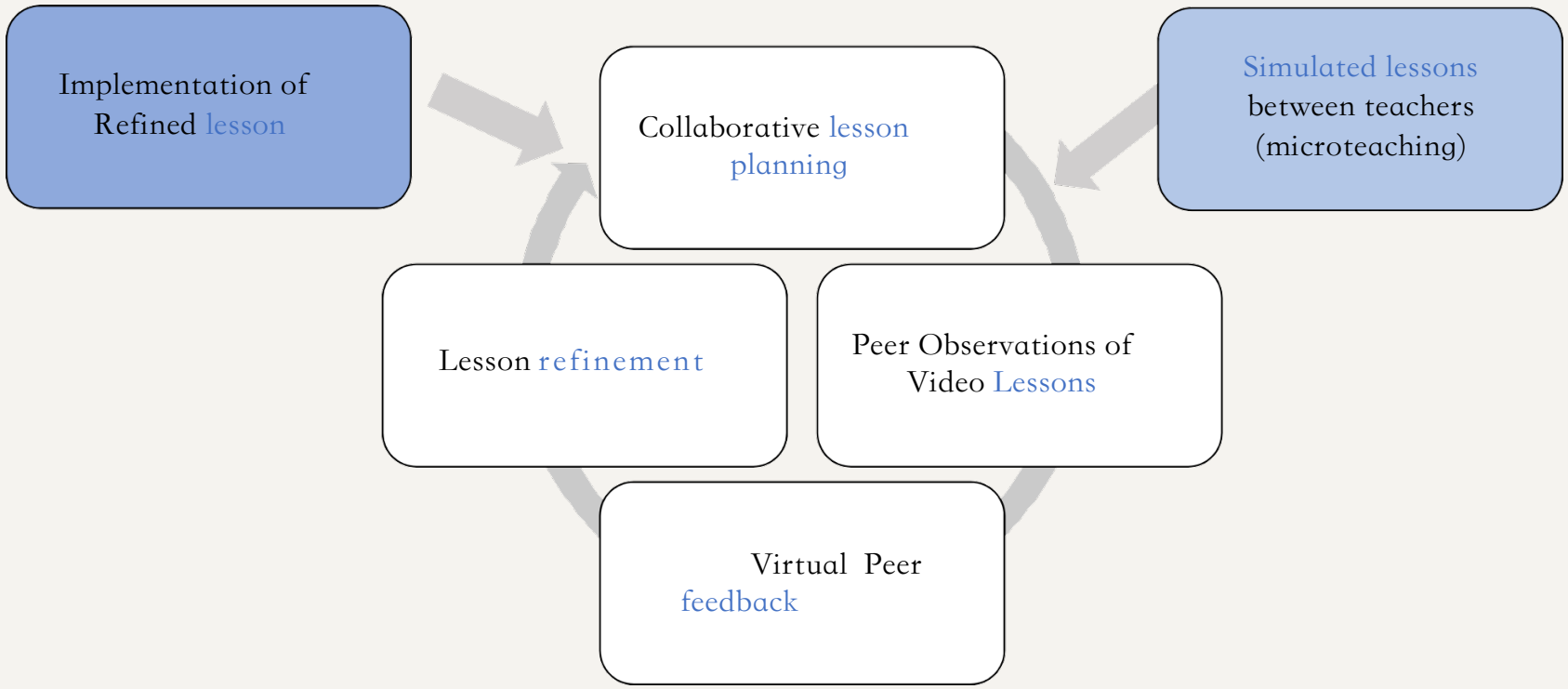
Example 2:
Cross-Cultural Leadership and Teacher Development

Chile: Virtual Application of the TPEG Model (2020)

- Pozo Almonte District (pop: 15.000), in the north of Chile
- Few specialist teachers and a considerable distance between schools
- 8 rural public schools (7 elementary/lower secondary, 1 secondary)
- Teams: Principal (8), academic coordinator (9), math teacher(s)(16), English teacher(s)(8), PIE (special education coordinator)(12)

Volante, Müller, Salinas, & Cravens, X. (2023)

Chile: Virtual Application of the TPEG Model (2020)



Volante, Müller, Salinas, & Cravens, X. (2023)

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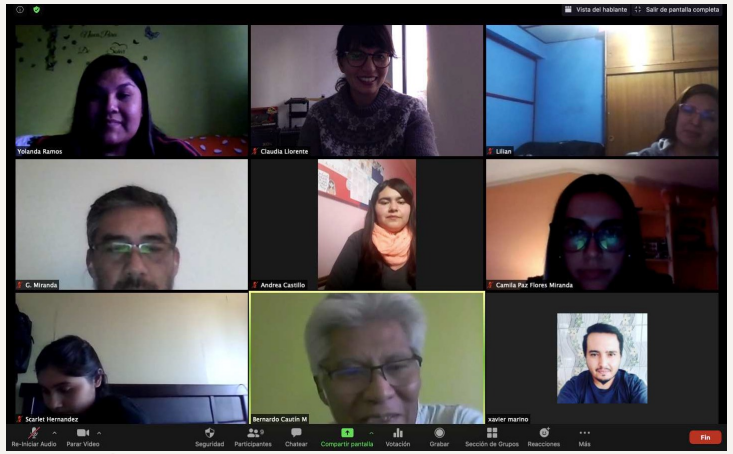
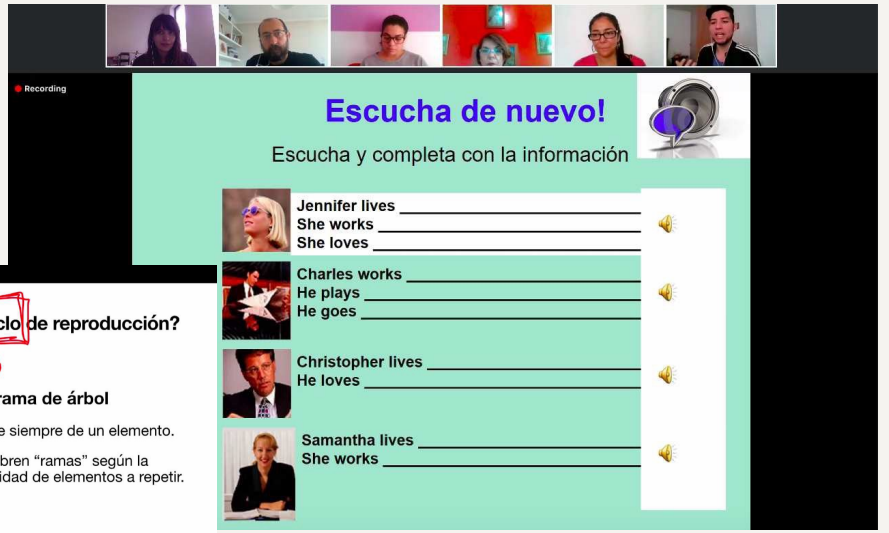
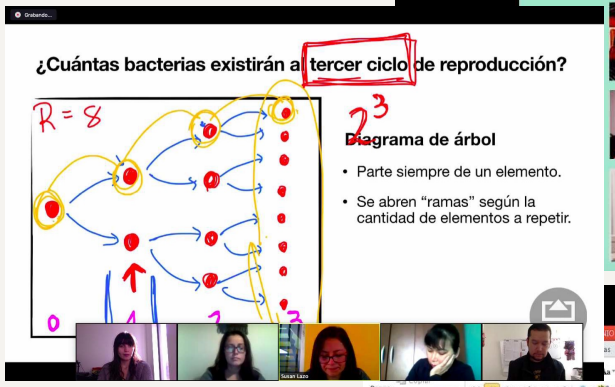
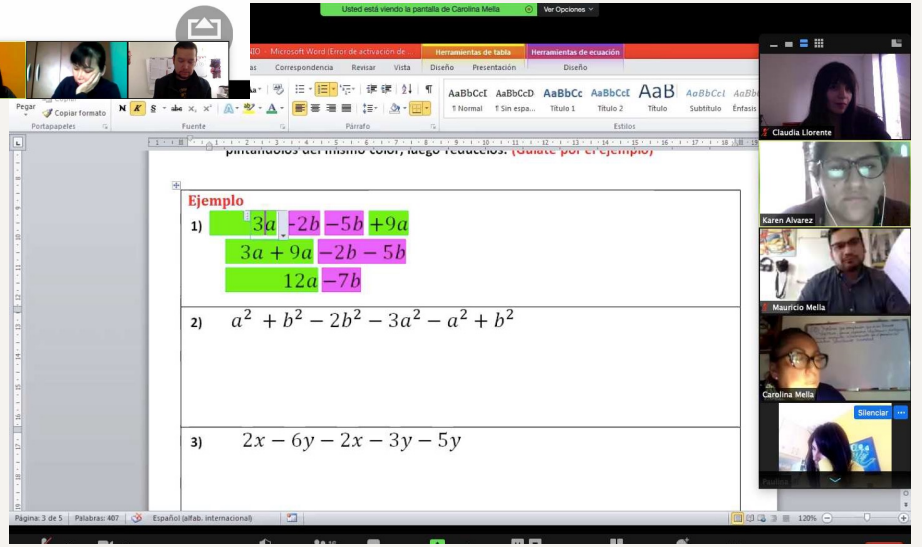


Deprivatization

Defining key learnings in a specific domain







- Products are stored and shared (zoom)
- Simulated practices
- Ensuring successful learning experiences

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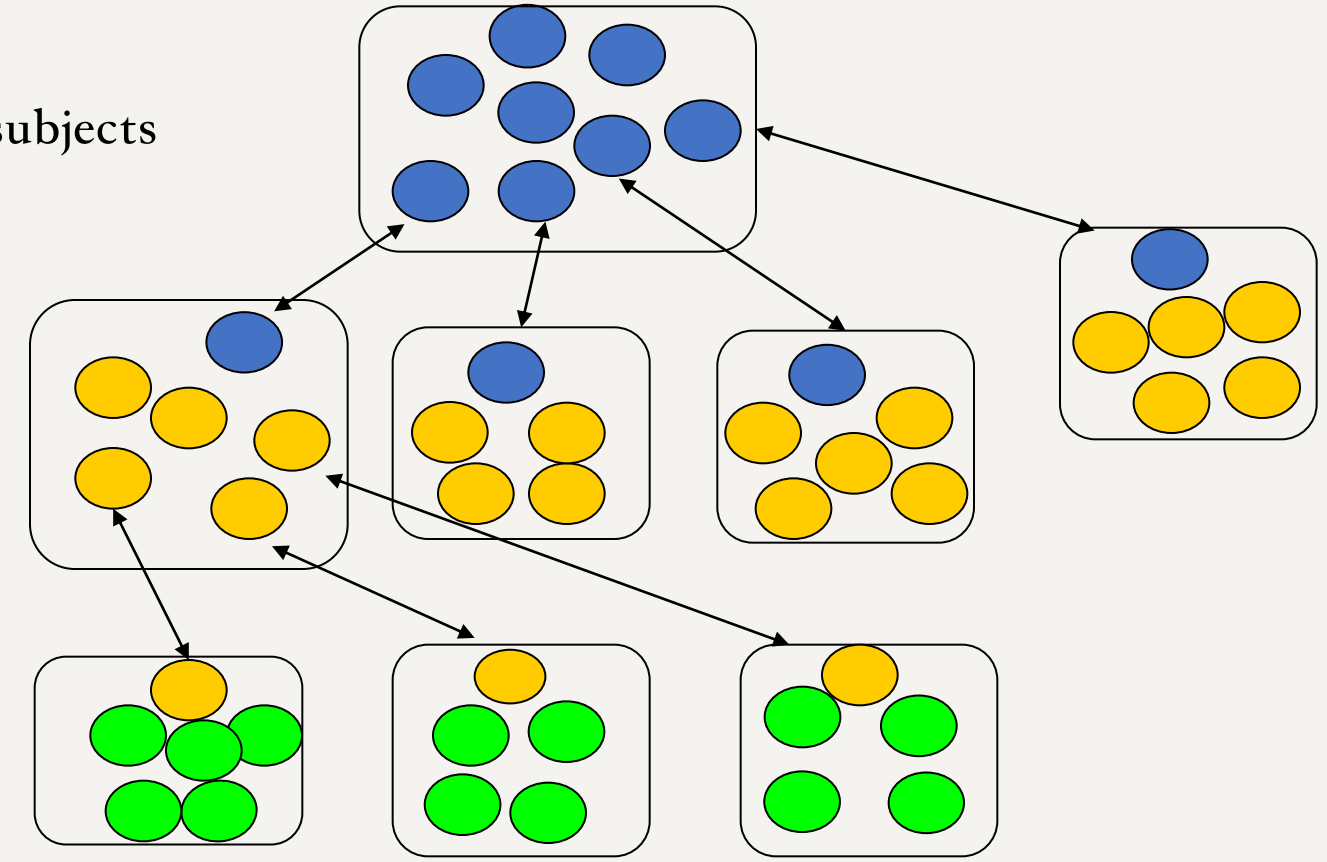
Example 3: Leveraging AI for Teacher-Led Collaborative Inquiry and Professional Development (Singapore and Taiwan)

Al Experts
+ Master Teachers of 12 subjects

Master teacher
+ subject teacher leads

Subject teacher lead
+ teachers



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Designing Problem-based Learning

Principals and teachers from different schools learning how to customize prompts to design tasks and assessments

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The Power of Collaborative Inquiry

A New Era for Gaining Knowledge:

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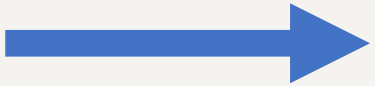
Learn and Ask



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Ask and Learn

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Opportunities and Challenges for School Leaders

Thank You!

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