

SEMINARIO INTERNACIONAL

# LIDERAZGO EDUCATIVO

Estrategias globales para la efectividad y el impacto



» Xiu Cravens

"Crear condiciones para el desarrollo  
y retención efectiva de docentes:  
Oportunidades y desafíos"

jueves  
**3 OCT**



VANDERBILT



Peabody College



UNIVERSIDAD DE TARAPACÁ  
Universidad del Estado



# Creating Conditions for Effective Teacher Development and Retention: Opportunities and Challenges for School Leaders

CILEP

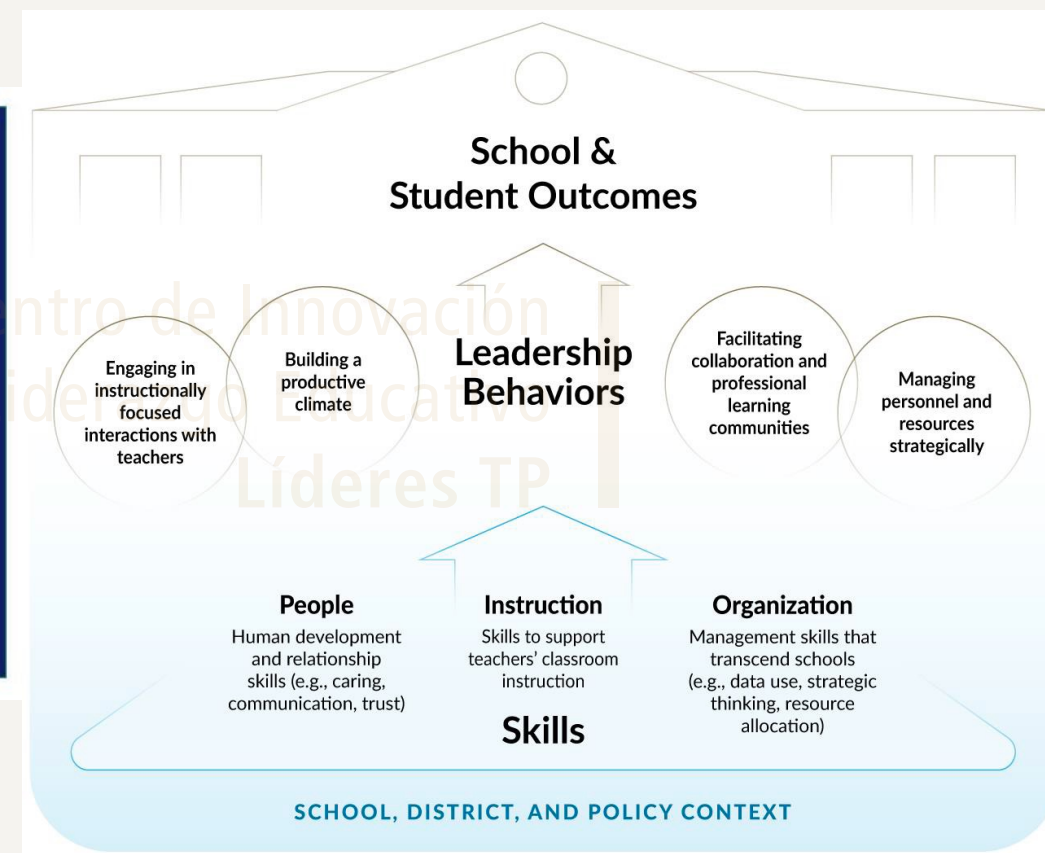
Xiu Cravens  
2024

Centro de Innovación  
en Liderazgo Educativo  
Líderes TP



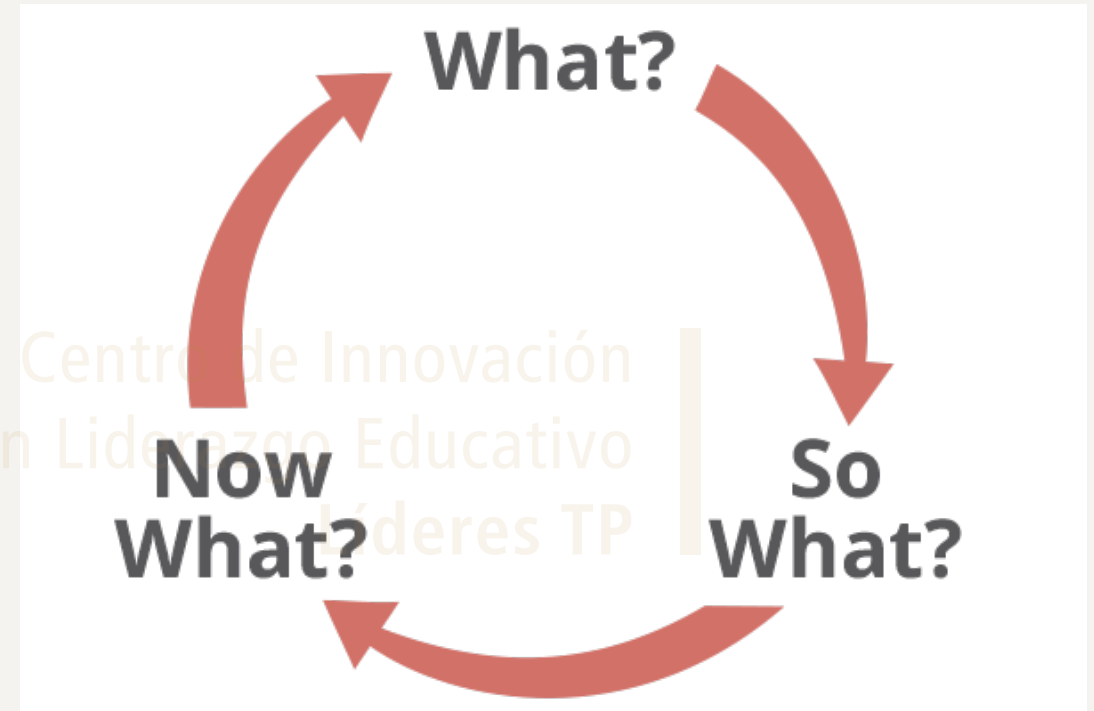
# What Do We need to Know about School Leadership

## - The U.S. Perspective



# Now What?

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



# 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

# A Focus on Equity




[ASSESSMENTS & RESULTS](#)
[RESOURCES & DATA TOOLS](#)
[INFORMATION FOR...](#)
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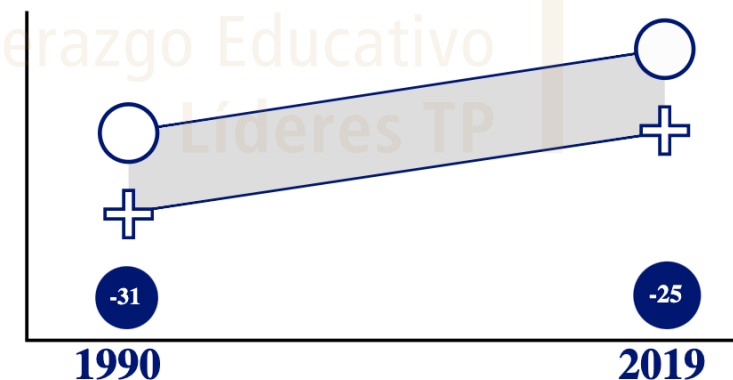
## Explore Achievement Gaps Data

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](#)

Mathematics  
Nation public schools  
Grade 4

SCALE  
SCORE



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/>

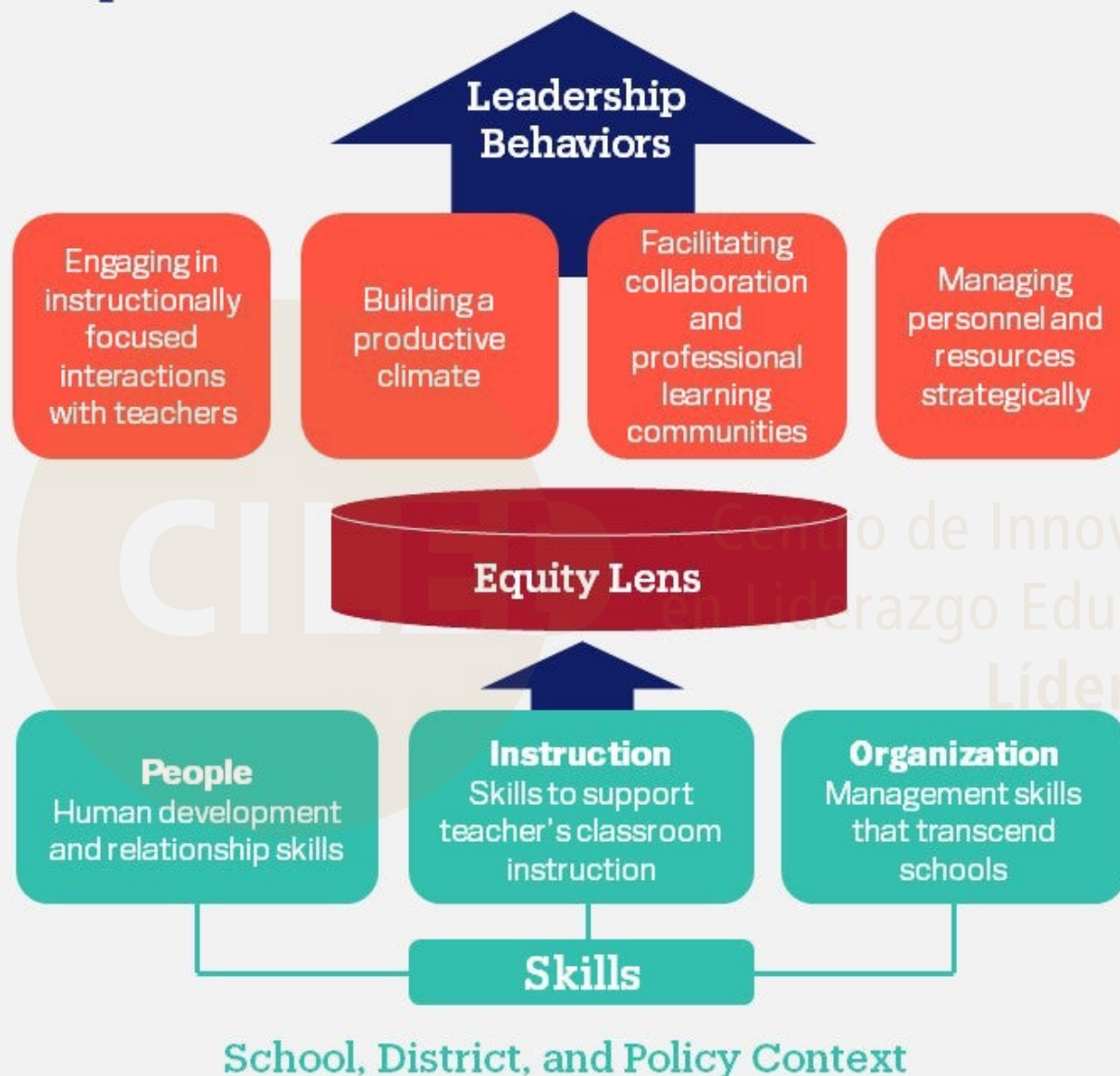
# A Focus on Making Change

- 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>

# 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?

# How do we ensure equitable access to quality instruction?

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

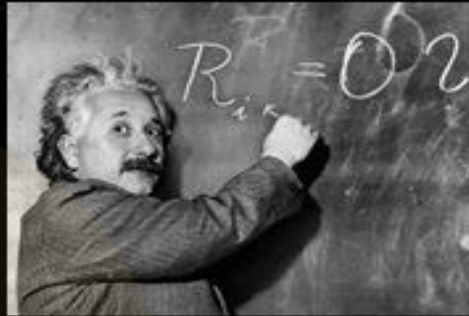
Such variation in access to quality instruction is highly correlated with student backgrounds and learning outcomes.



# TEACHER



**What my friends think I do**



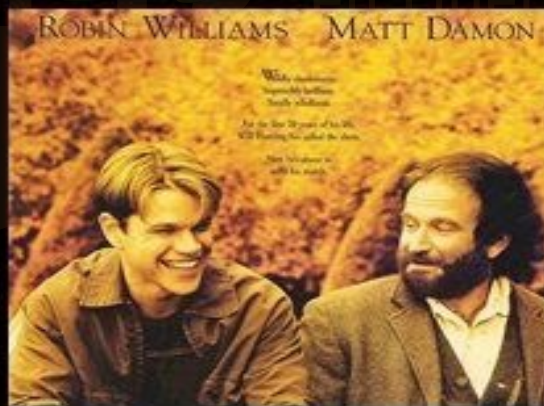
**What my Mom thinks I do**



**What society thinks I do**



**What kids think I do**



**What I think I do**



**What I really do**

# 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.”

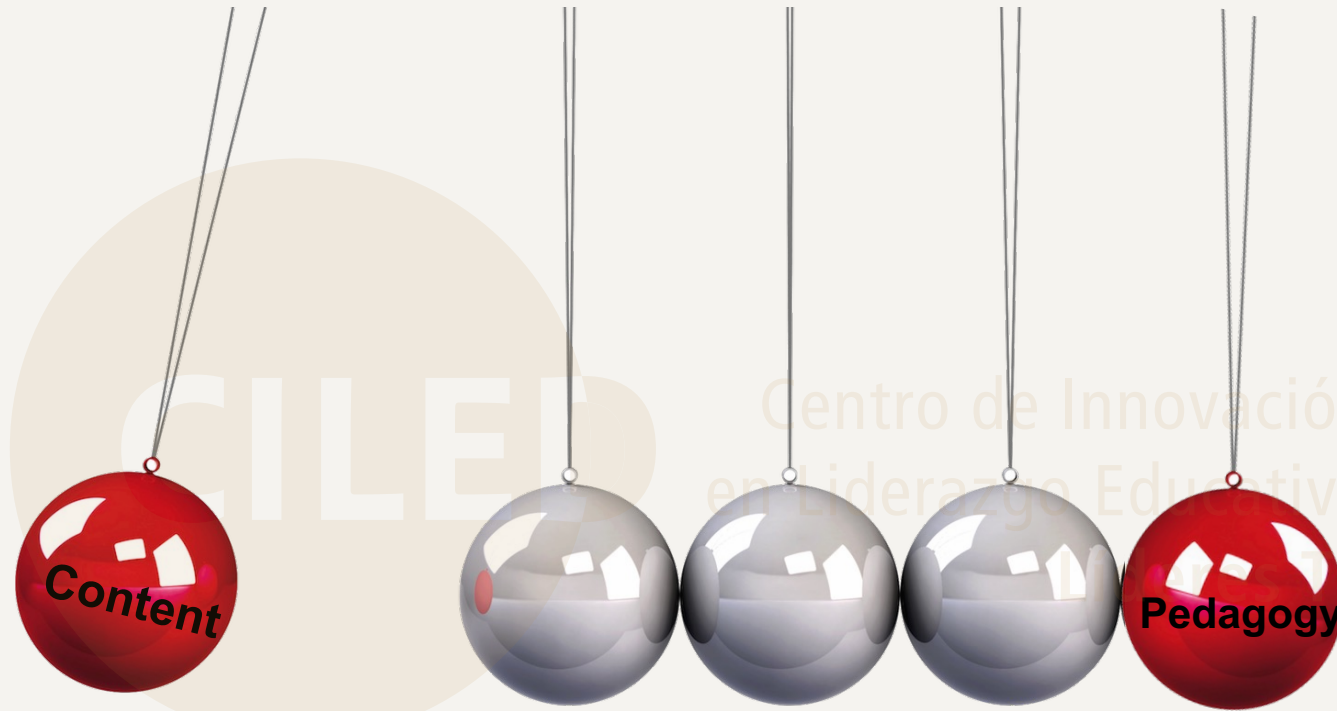
Larry Cuban, 1988



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



# Lesson 1: What to learn



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

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## Lesson 2: How to learn

One good example is better than one hundred doctrines.  
The power of peer-to-peer learning.

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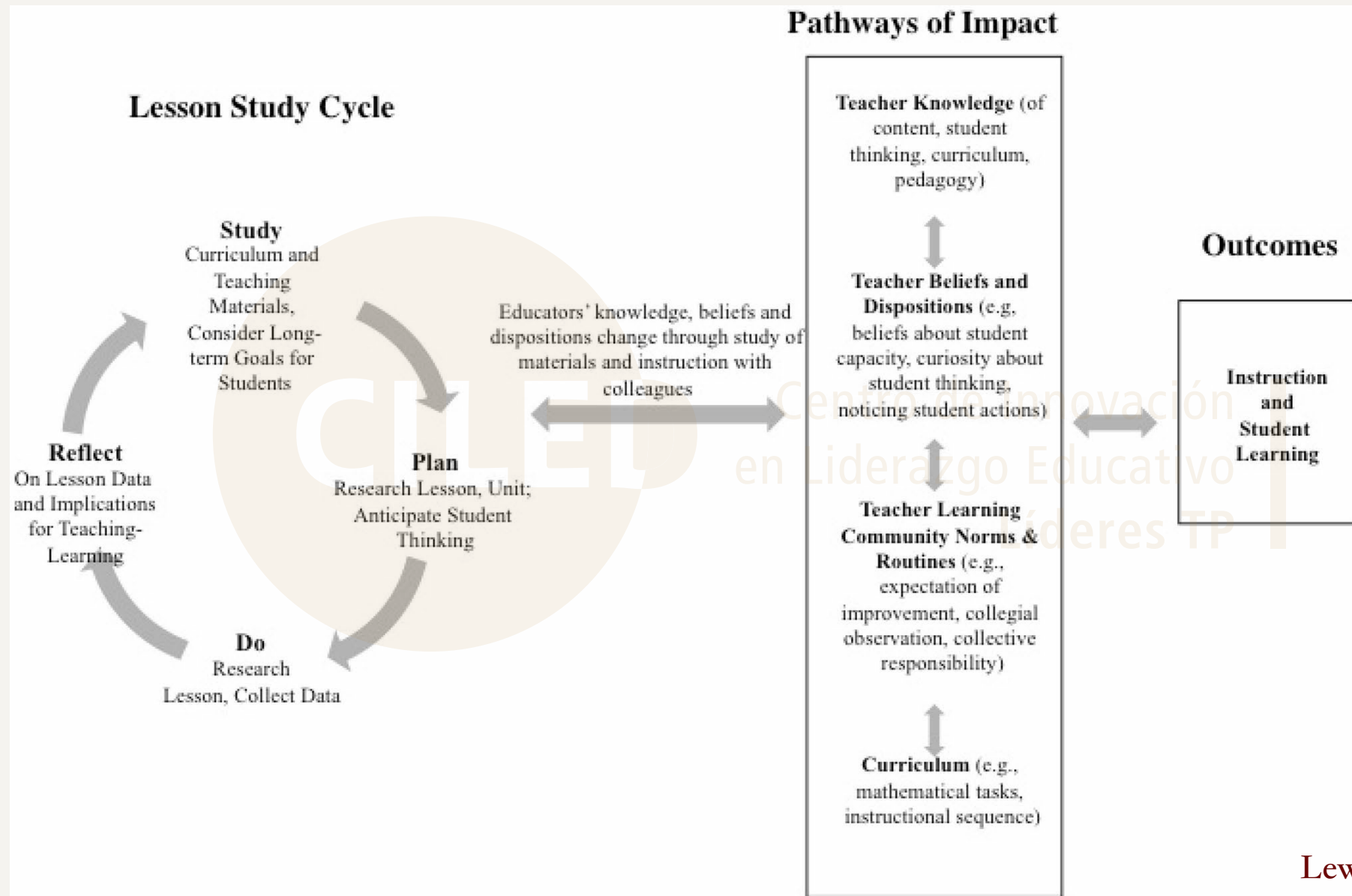
## Lesson 3: From whom to learn

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

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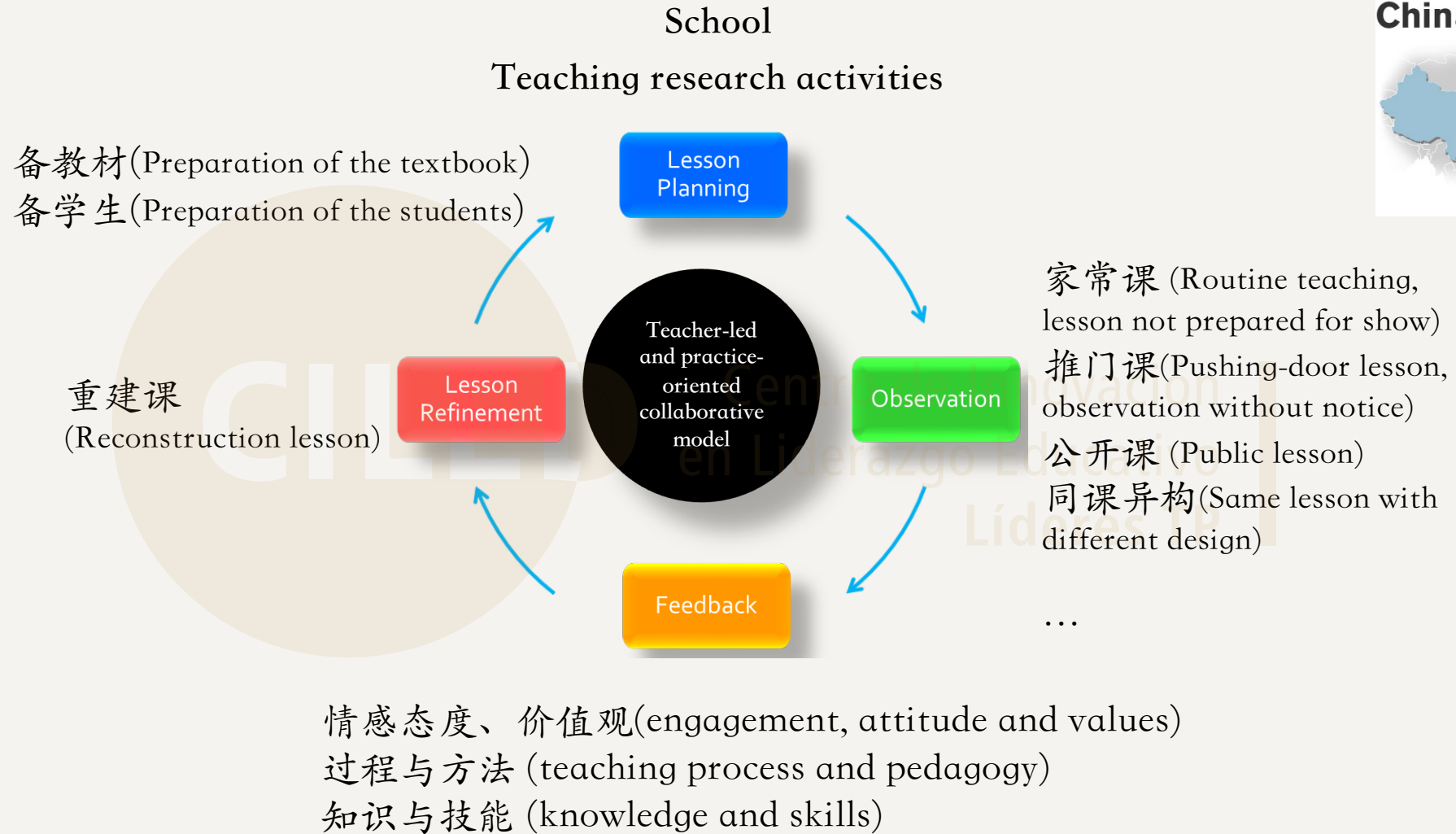
# The Routine - Japanese Lesson Study



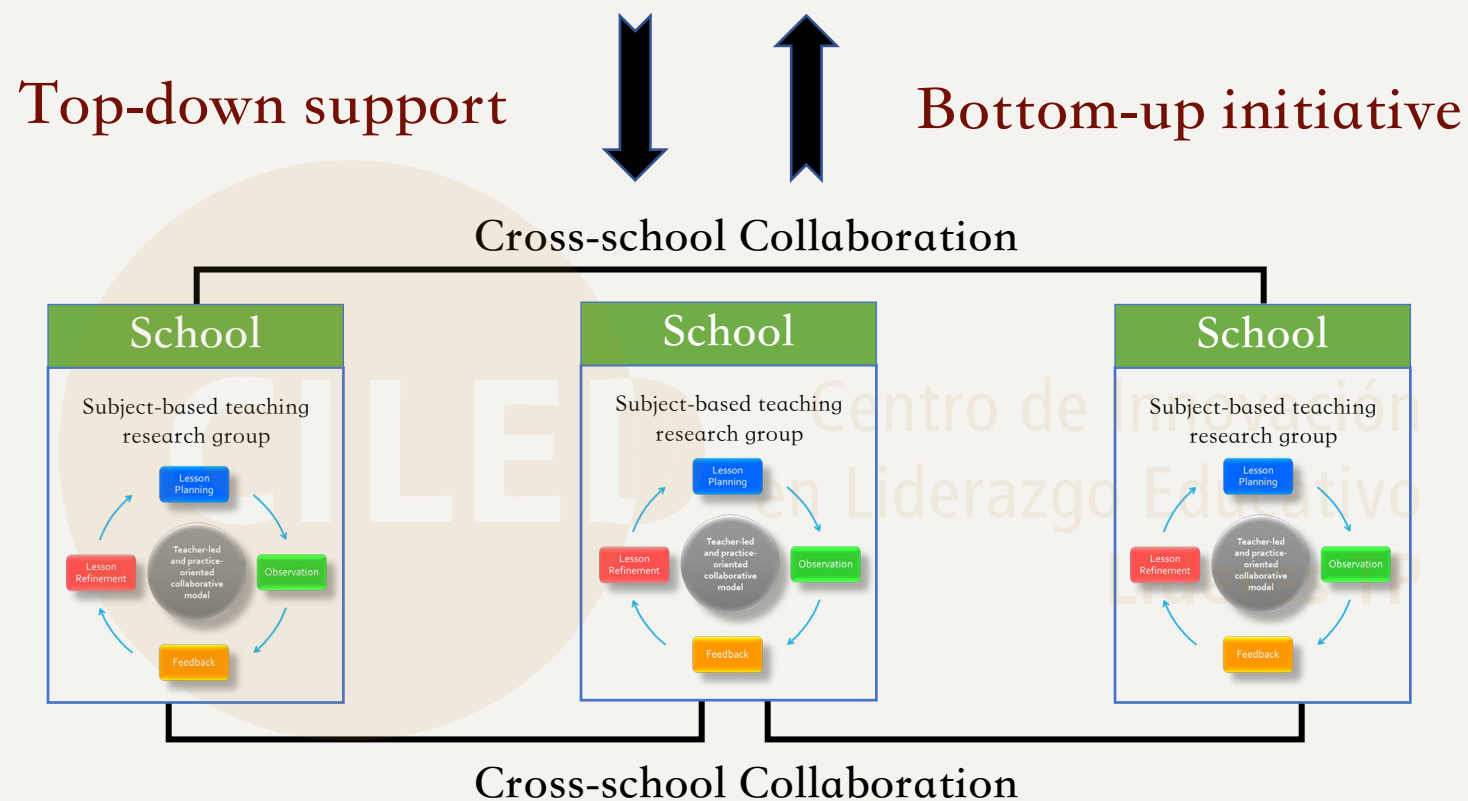
Lewis, C., 2016

# The Routine - Teaching-Study Groups in Shanghai

Shanghai,  
China



# The System



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

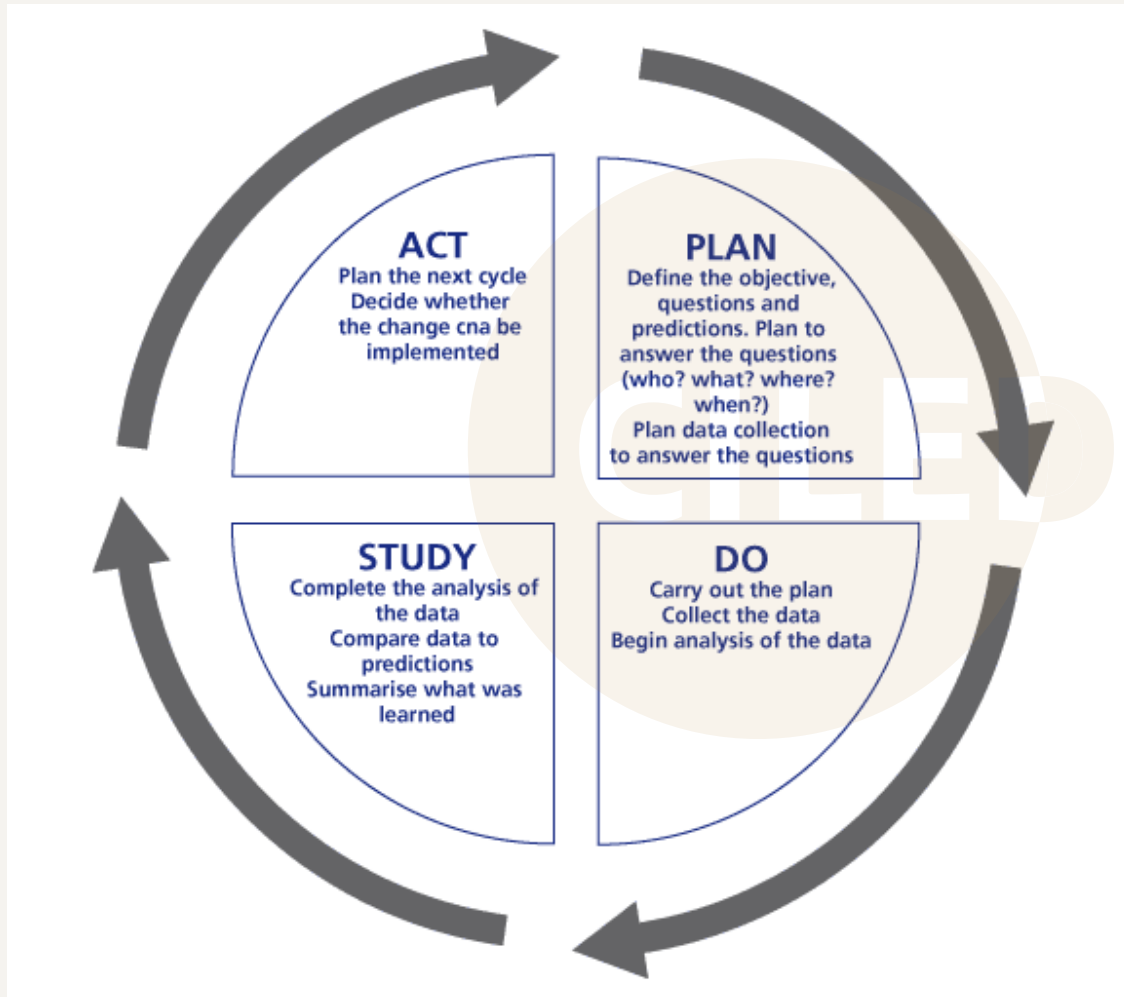
# These Models Use an “Improvement Science” Approach



- 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?

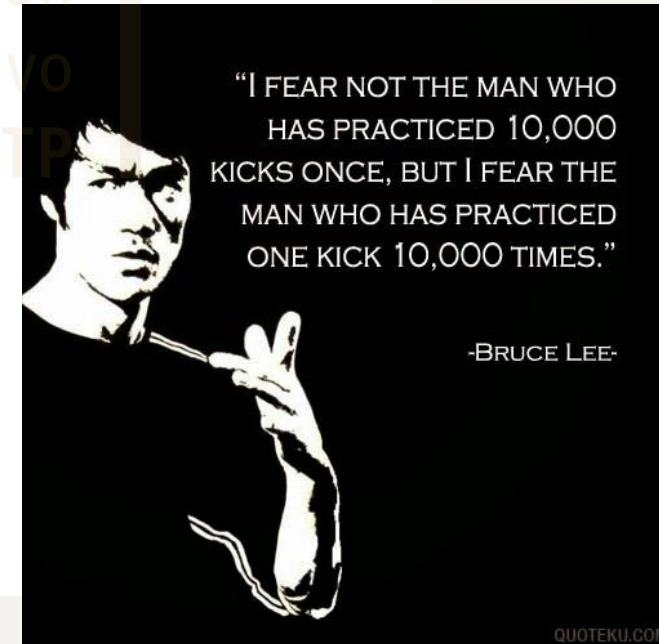
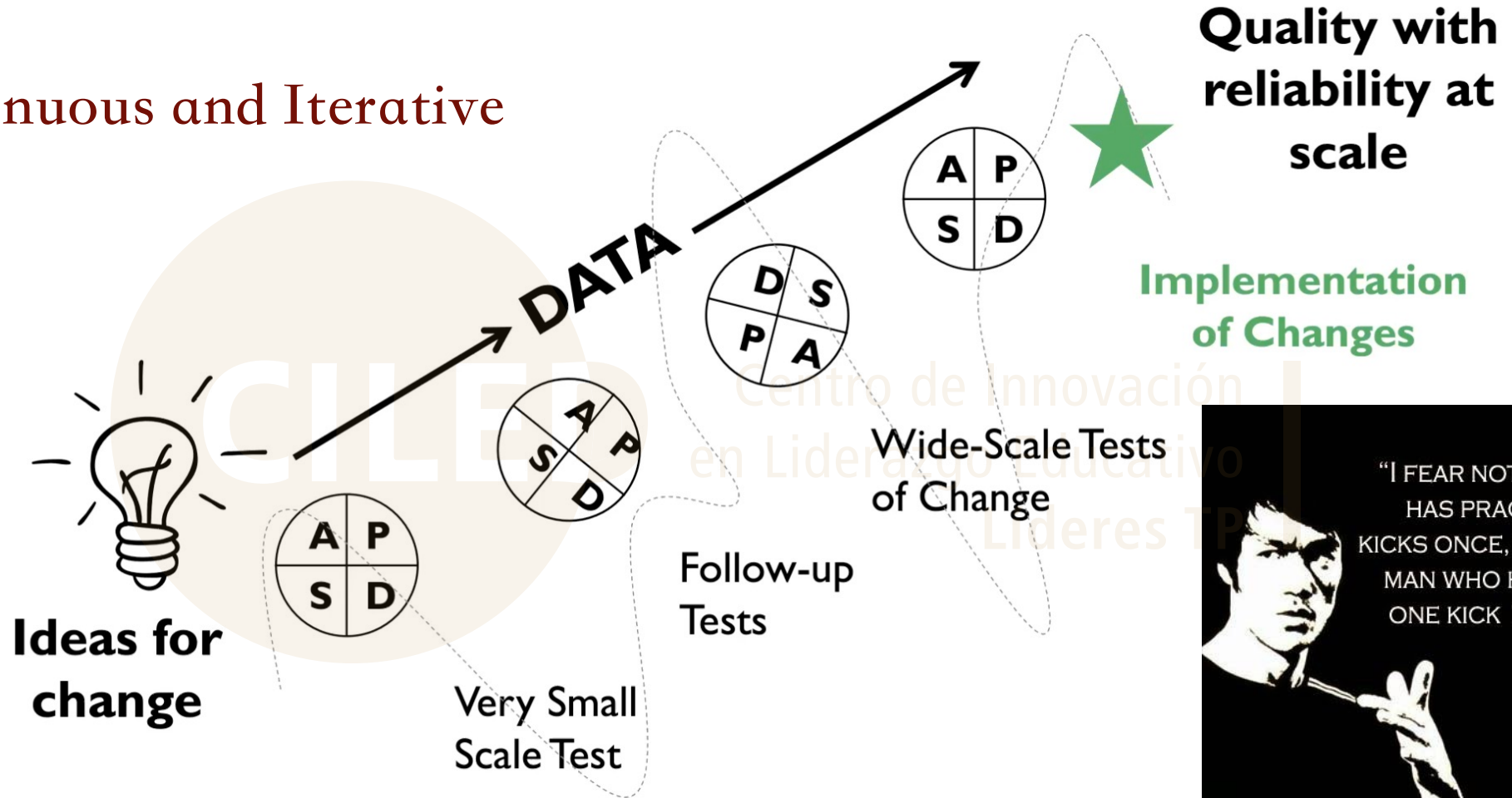


## 1. Disciplined Trial Cycle:

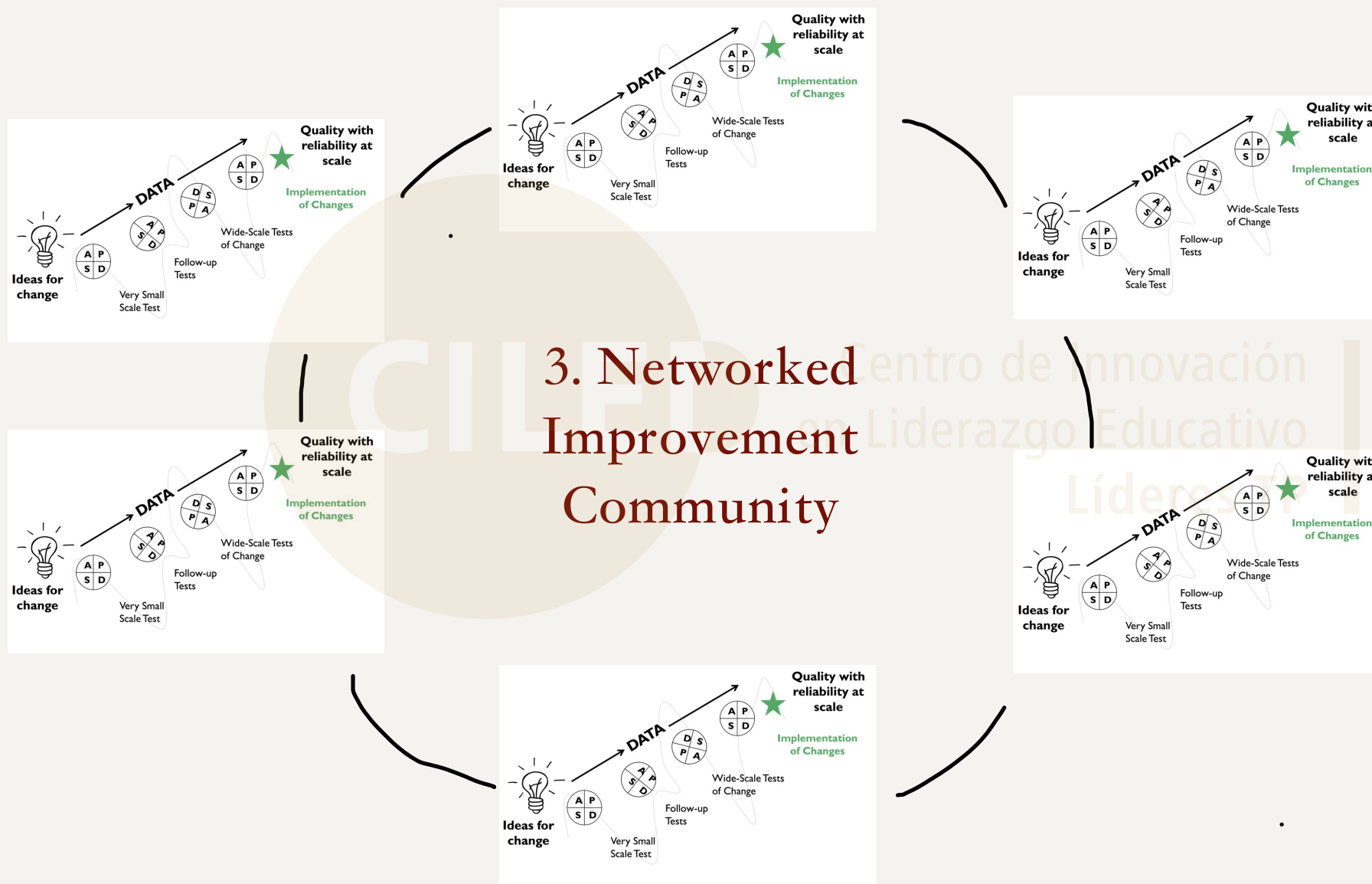
- **Plan**- system analysis and hypothesis formation
- **Do**- implement the new process with data collection
- **Study**- interpret the results
- **Act**- decide what to do next based on the results

# What is Improvement Science?

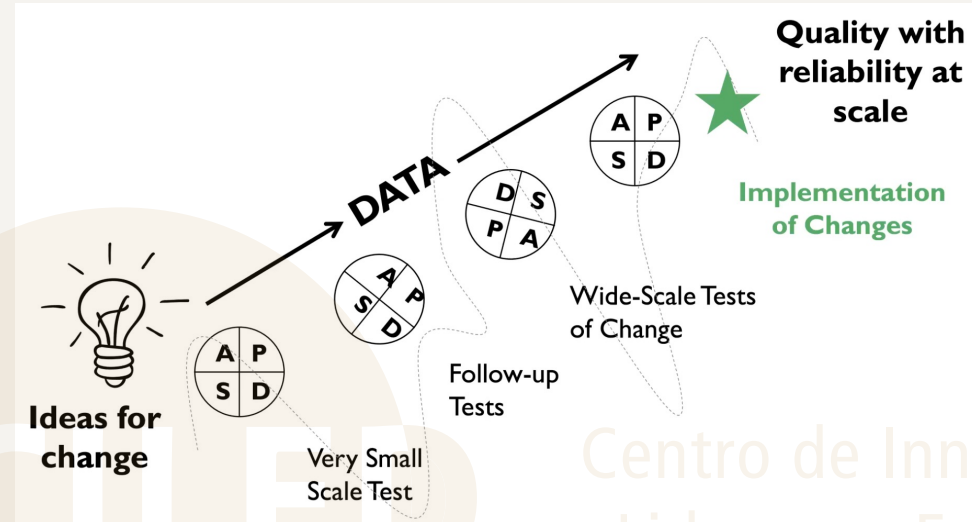
## 2. Continuous and Iterative Testing



# What is Improvement Science?



# 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

# 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.

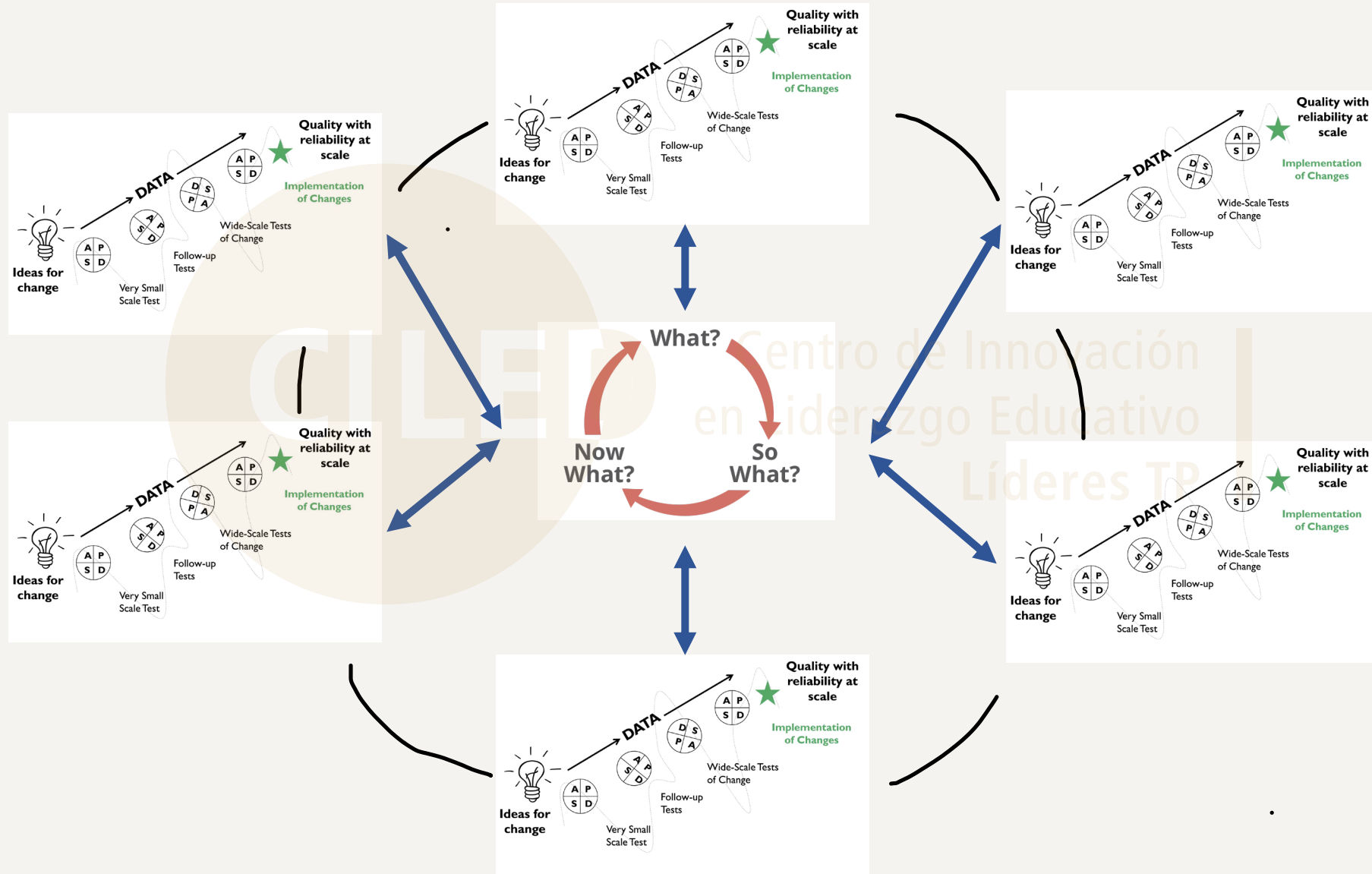
見賢思齊焉，見不賢而內自省也

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)

# Improvement Science + Applied Research



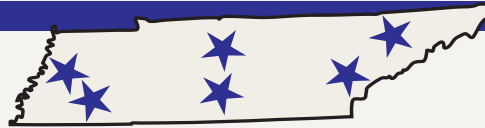
# Example 1: Cross-Cultural Leadership and Teacher Development

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

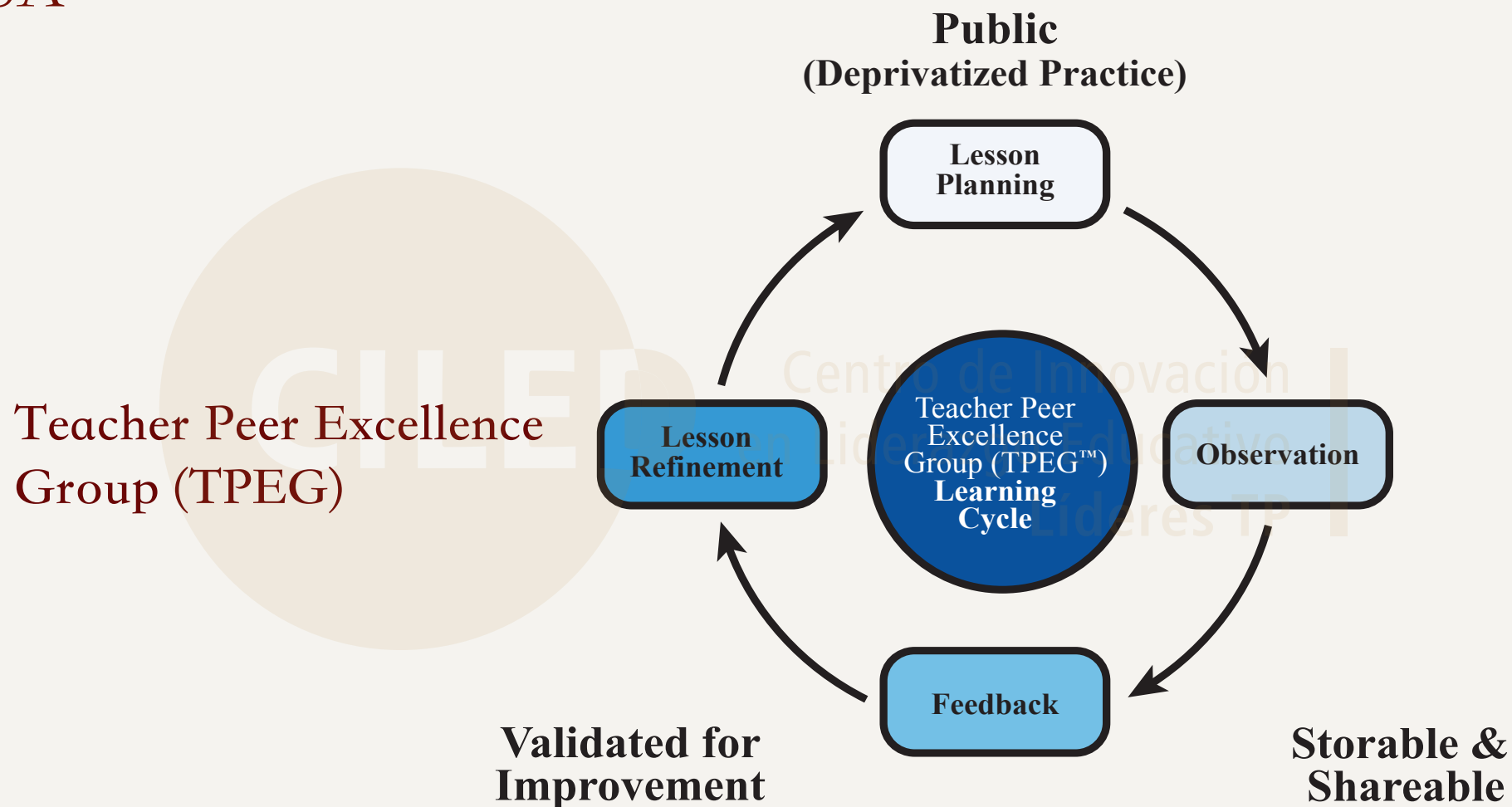
Funded by the Tennessee Department of Education and the Melinda & Gates Foundation (2013-2017)



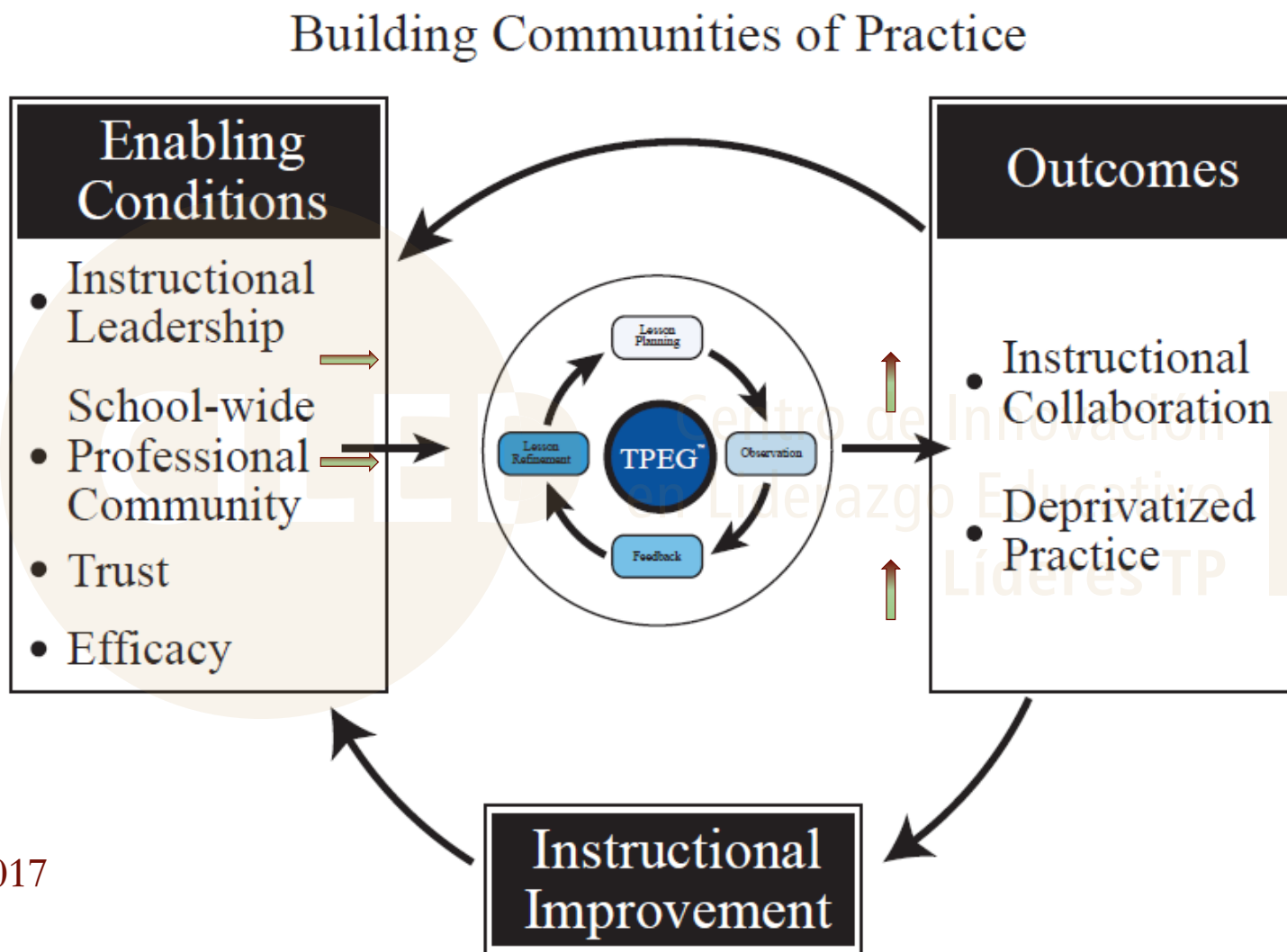
TENNESSEE | SHANGHAI LEADERSHIP COLLABORATIVE



# 1. PDSA



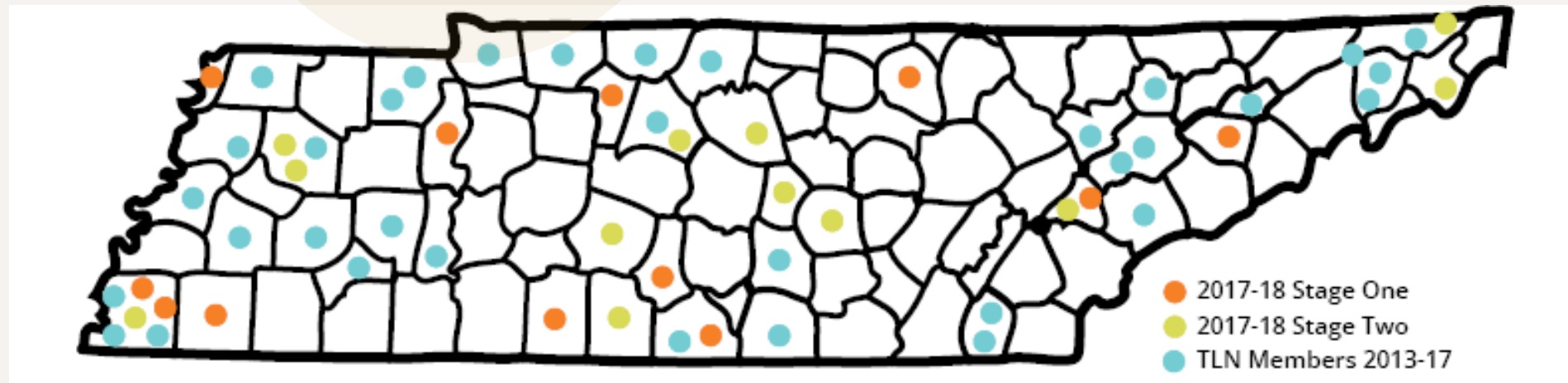
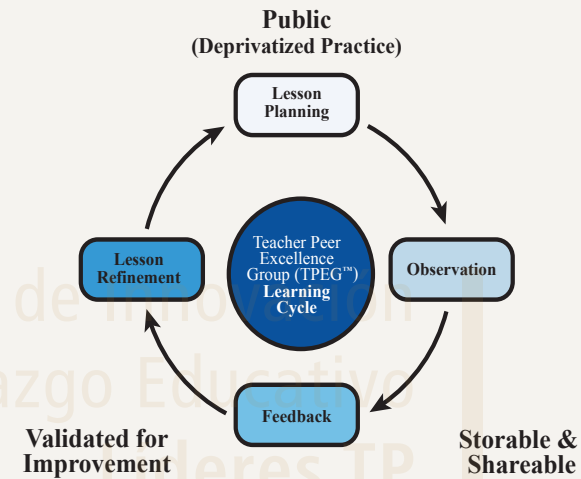
## 2. PDSA in a continuously improving system



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



# 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 employ both facilitator- and director-like behaviors according to the needs of separate TPEGs.

# Assessing the impact of collaborative inquiry on teacher performance and effectiveness

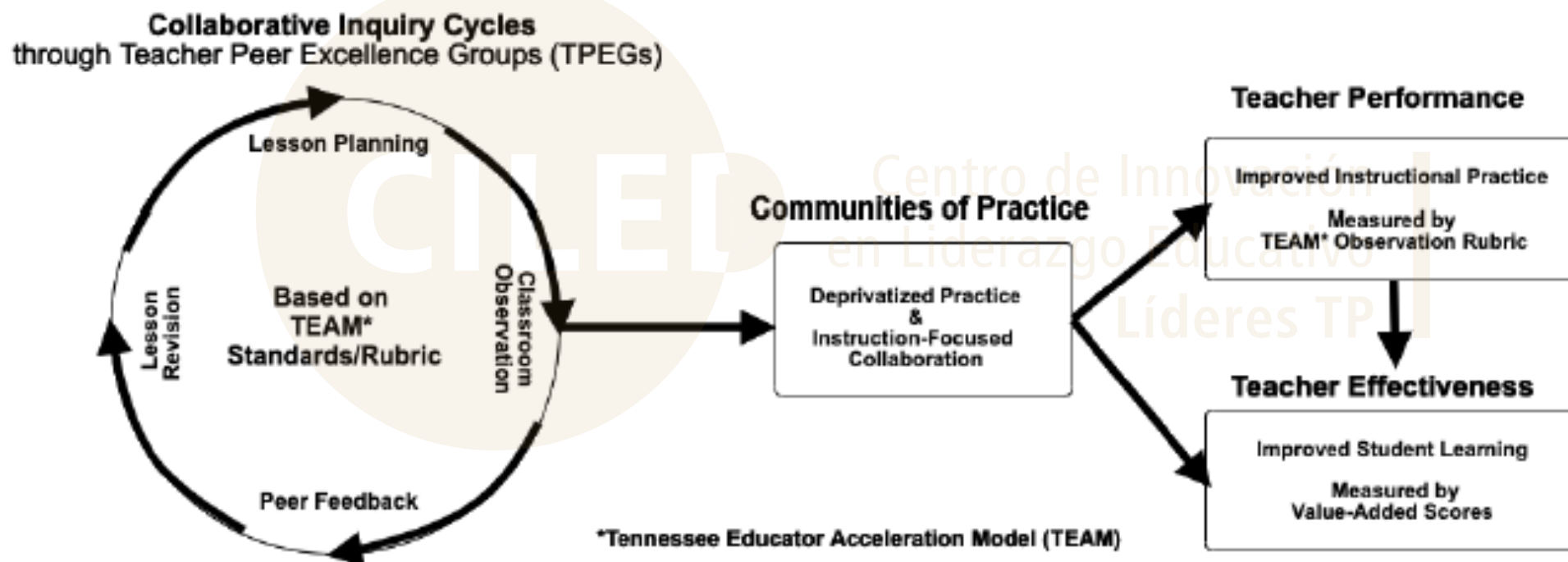


Figure 2: Assessing the Impact of Collaborative Inquiry Conducted by TPEGs

## Example 2: Cross-Cultural Leadership and Teacher Development

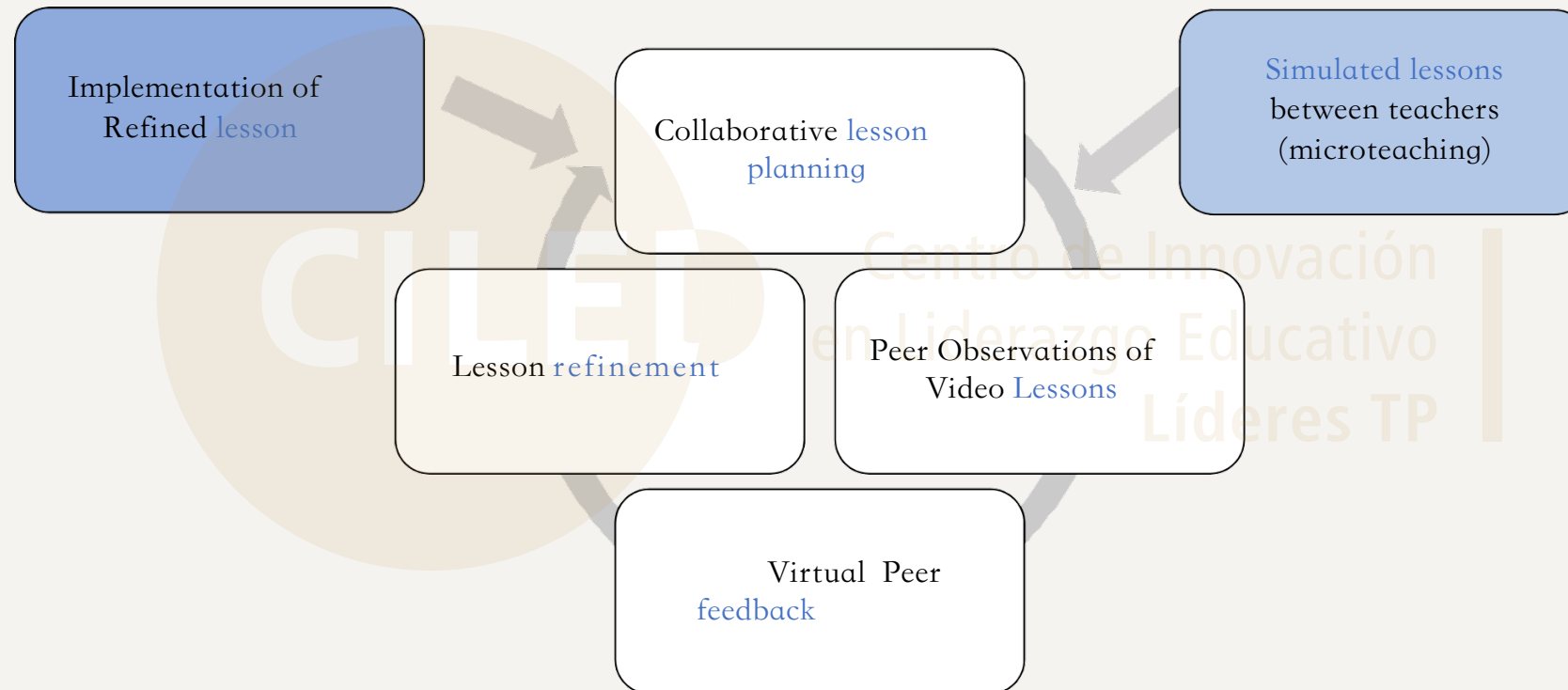
### Chile: Virtual Application of the TPEG Model (2020)

- 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)



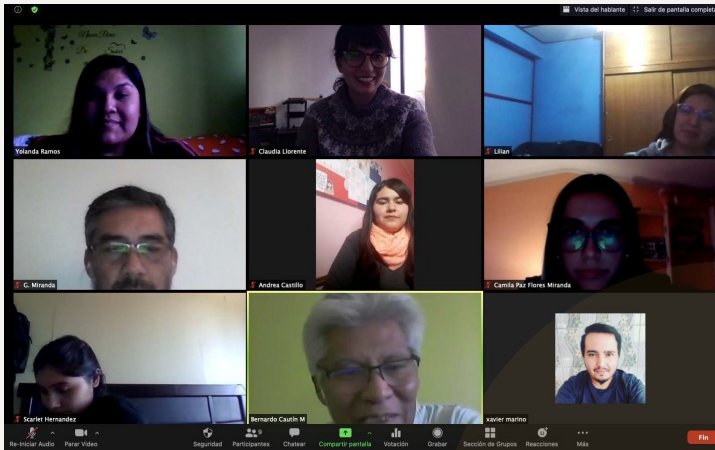
Volante, Müller, Salinas, & Cravens, X. (2023)

# Chile: Virtual Application of the TPEG Model (2020)



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

# Chile: Virtual Application of the TPEG Model (2020)





Deprivatization

Defining key  
learnings in a  
specific domain



**Escucha de nuevo!**  
Escucha y completa con la información

	Jennifer lives _____ She works _____ She loves _____
	Charles works _____ He plays _____ He goes _____
	Christopher lives _____ He loves _____
	Samantha lives _____ She works _____

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

Microsoft Word (Error de activación de...)

Herramientas de tabla    Herramientas de ecuación

Correspondencia    Revisar    Vista    Diseño    Presentación    Diseño

AaBbCc1    AaBbCc2    AaBbCc3    AaBbCc4    AaBbCc5    AaBbCc6    AaBbCc7    AaBbCc8    AaBbCc9    AaBbCc10    AaBbCc11    AaBbCc12    AaBbCc13    AaBbCc14    AaBbCc15    AaBbCc16    AaBbCc17    AaBbCc18    AaBbCc19    AaBbCc20    AaBbCc21    AaBbCc22    AaBbCc23    AaBbCc24    AaBbCc25    AaBbCc26    AaBbCc27    AaBbCc28    AaBbCc29    AaBbCc30    AaBbCc31    AaBbCc32    AaBbCc33    AaBbCc34    AaBbCc35    AaBbCc36    AaBbCc37    AaBbCc38    AaBbCc39    AaBbCc40    AaBbCc41    AaBbCc42    AaBbCc43    AaBbCc44    AaBbCc45    AaBbCc46    AaBbCc47    AaBbCc48    AaBbCc49    AaBbCc50    AaBbCc51    AaBbCc52    AaBbCc53    AaBbCc54    AaBbCc55    AaBbCc56    AaBbCc57    AaBbCc58    AaBbCc59    AaBbCc60    AaBbCc61    AaBbCc62    AaBbCc63    AaBbCc64    AaBbCc65    AaBbCc66    AaBbCc67    AaBbCc68    AaBbCc69    AaBbCc70    AaBbCc71    AaBbCc72    AaBbCc73    AaBbCc74    AaBbCc75    AaBbCc76    AaBbCc77    AaBbCc78    AaBbCc79    AaBbCc80    AaBbCc81    AaBbCc82    AaBbCc83    AaBbCc84    AaBbCc85    AaBbCc86    AaBbCc87    AaBbCc88    AaBbCc89    AaBbCc90    AaBbCc91    AaBbCc92    AaBbCc93    AaBbCc94    AaBbCc95    AaBbCc96    AaBbCc97    AaBbCc98    AaBbCc99    AaBbCc100

Ejemplo

1)  $-3a - 2b - 5b + 9a$   
 $3a + 9a - 2b - 5b$   
 $12a - 7b$

2)  $a^2 + b^2 - 2b^2 - 3a^2 - a^2 + b^2$

3)  $2x - 6y - 2x - 3y - 5y$

Página 3 de 5 | Palabras: 407 | Español (Latinoamérica)

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

AI Experts

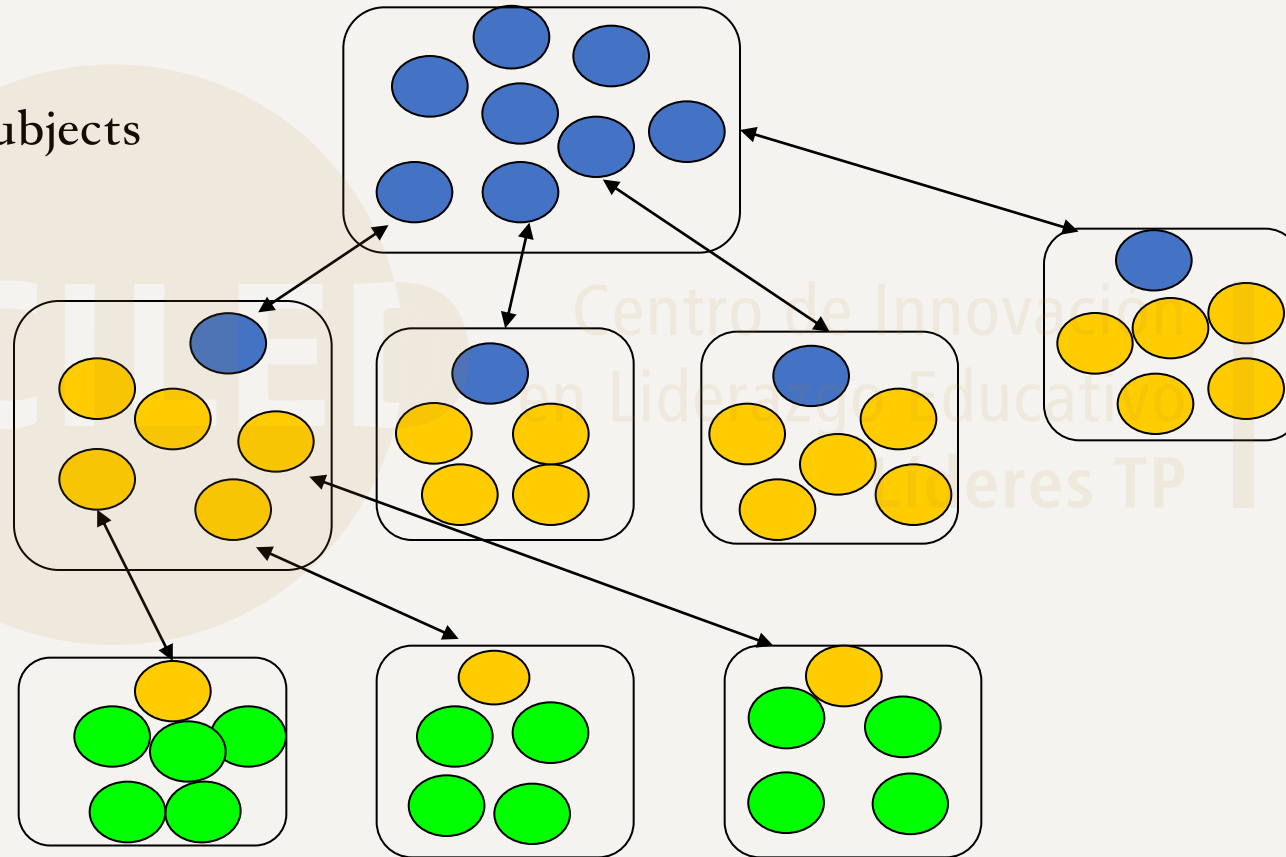
+ Master Teachers of 12 subjects

Master teacher

+ subject teacher leads

Subject teacher lead

+ teachers



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

PBL 概念 + ...

PBL 黃金標準：學生



☆ Rate 0

PBL 黃金標準：老師



☆ Rate 0

21世紀技能（就業能力）



☆ Rate 0

國外PBL範例 (learning in hand)



☆ Rate 0

prompt + ...

步驟一 整理課程地圖



☆ Rate 0

步驟二 擬定驅動問題



☆ Rate 0

步驟2-2使用6a進行驅動問題評估



☆ Rate 0

步驟三 表現任務指定細向



☆ Rate 0

## Designing Problem-based Learning

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



# The Power of Collaborative Inquiry

A New Era for Gaining Knowledge:



# Creating Conditions for Effective Teacher Development and Retention: Opportunities and Challenges for School Leaders

CILED

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Thank You!

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