Common Core State Standards Systems Map

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Two Systems Maps

- Enclosed are two systems maps capturing the complexity and interdependency of the Common Core State Standards implementation:

1. Stock-and-Flow diagram

2. Core Reinforcing Loops
1. Stock-and-Flow Diagram
INCREASING THE STOCK OF EFFECTIVE STUDENTS

Stock-and-Flow Diagram Notation

- The rectangle “Effective 4-12 Students” denotes a stock variable that behaves like a bathtub with an inflow and an outflow.
- The hollow arrow with the valve sign “Engaged Early Childhood Graduates” denotes the rate of Early Childhood Kids grow into Effective 4-12 Students over time.
- New borns grow from Early Childhood Kids to Effective 4-12 Students to Higher Education Students to Entry Job Employees to Effective Responsible Happy Citizens – the vision of the education effort.
STUDENTS MOVING FROM DISENGAGED TO ENGAGED AND EFFECTIVE

- *Early Childhood Kids* can become disengaged and grow into *Disengaged & Dropout 4-12 Students*, which can be reengaged into *Effective 4-12 Students*.
- *Effective 4-12 Students* can enter into higher education or they can go into entry jobs directly, some of which will return to school to get a college education.
WAYS THAT EFFECTIVE CCSS IMPLEMENTATION CAN INCREASE STOCK OF EFFECTIVE STUDENTS

- **Solid Arrow** represents the causal direction from a cause to an effect, e.g. more Effective Parents lead to higher Early Childhood Development and Out-of-School Supports.

- **Effective Common Core Implementation** is driven by Out-of-School Supports, Student Supports, Innovations in Pedagogy and Instructional Design, College and Career Readiness CCR Assessments, Common Core State Standards CCSS and Student Peer Network among others.

- **R sign** indicates a positive reinforcing feedback loop.

- **R1 Student Peer Network (PN) Loop**: more Effective 4-12 Students lead to more effective Student Peer Network, which enhances Effective Common Core Implementation through peer learning and creates more Effective 4-12 Students.

- Reinforcing feedback loops are key to scale up systemic change as various interventions catalyze circular self-reinforcing processes.

- The goal is to invest in various high-leverage points to the extent where the system tips into self-sustaining change processes.
GROWING EFFECTIVE TEACHERS

R2 Teacher Peer Network Loop: more Effective Teachers lead to a stronger Teacher Peer Network, which increases Teacher Capacity Building and creates more Effective Teachers. Creating a teacher peer network where teachers learn from their effective peers creates a powerful reinforcing loop to generate more effective teachers over time.
CONNECTING STUDENT OUTCOMES, TEACHER EVALUATION WITH TEACHER CAPACITY BUILDING

R3 Teacher Evaluation Loop: more Effective Teachers lead to higher Innovations in Pedagogy and Instructional Design, which increases Effective Common Core Implementation that creates more Effective 4-12 Students and better Student Outcomes. How to close the feedback loop so better Student Outcomes feed back to the creation of more Effective Teachers? 1) Strengthen the Teacher Evaluation—Teacher Capacity Building link by creating incentives and effective support for Teacher Capacity Building based on Teacher Evaluation&Feedback, and 2) strengthen the Student Outcomes—Teacher Evaluation link by aligning Teacher Evaluation&Feedback based on understanding influences of pedagogical innovation on Student Outcomes. This closes the reinforcing feedback loop from Effective Teachers to Student Outcomes to further development of Effective Teachers. Teachers are evaluate, coached and rewarded based on determinants of higher Student Outcomes, which further build their capacity to become Effective Teachers.

What are some specific investments to strengthen these two links?
R4 Higher Ed Alignment Loop: more Effective 4-12 Students lead to more Higher Education Students as less students dropout. This in turn generates more Higher Ed Revenue and creates a business case in addition to moral case for further K-12 and Higher Ed Alignment with CCSS.
GROWING EFFECTIVE BUILDING LEADERS TO SHAPE CLIMATE FOR MORE EFFECTIVE TEACHERS & IMPROVING STUDENT OUTCOMES

R5 Building Leader Peer Network Loop: similar to R2 Teacher PN Loop, more Effective Building Leaders lead to a stronger Building Leader Peer Network, which increases Building Leader Capacity Building and creates more Effective Building Leaders.

R6 Building Leader (BL) Evaluation Loop: similar to R3 Teacher Evaluation Loop, setting the right Building Leader Evaluation & Feedback based on Teacher Evaluation and on Student Outcomes can guiding coaching and incentivize further Building Leader Development and creates more Effective Building Leaders over time.
GROWING EFFECTIVE DISTRICT LEADERS TO SHAPE CLIMATE FOR GROWING BUILDING LEADERS & EFFECTIVE TEACHERS

R7 District Leader Peer Network Loop and R8 District Leader Evaluation Loop are two similar loops operating at the district leader level.
R9 State Leader Evaluation Loop:
the more State Leader Evaluation is based on Student Outcomes, the more Effective State Policy & Funding is aligned for Effective CCSS Implementation.
R10 Provider Learning Loop:
*Effective Education Resource/Service Providers* develop *Quality Instructional Materials* that enhance *Effective Common Core Implementation*, which leads to more *Provider Capacity Building* through learning and experience.
R11 Communication Loop: better Student Outcomes and Career Competitiveness lead to higher Public Perceived Benefits of CCSS, which enable better Communication and Stakeholder Engagement for Effective CC Implementation.
R12 Business & Community Leader Advocacy Loop: building Effective Business and Community Leaders is critical for advocating CCSS with wider stakeholders.
R13 Foundation & NGO Leaders Loop: building Effective Foundation & NGO Leaders is critical for coordinating high leverage investments.
How to Use the Map?

• When deciding on where to invest for effective CCSS implementation, one could use the map to reflect on the following questions:

1. As you look at the overall map, what loops are high priority to ensure implementation of CCSS is successful? Why?
2. Within those priority loops, what has been done about them currently? What are the weak or missing links in the loops?
3. Of those weak or missing links, what high-leverage points and specific investments should be focused in order to strengthen the loops?
4. How should those investments be sequenced under what timeline and why?
2. Core Reinforcing Loops

- The following map distills the core reinforcing loops from the more complex Stock-and-Flow diagram for ease of reading and focus.

- Each loop is renumbered that does not correspond to the ones shown in the Stock-and-Flow diagram.
Teacher Capacity
Building
Teacher Peer LC
(Training, Coaching, Peer Support)
Teacher Evaluation
Student Outcomes
Innovations in Pedagogy and Instructional Design
Instructional Materials
Out-of-School Support
Student Supports
CCSS Implementation Success
Effective Teachers
Teacher PLC
Teacher Education
R1
R2

Color Code:
Key Systems Capabilities
Interventions
Peer Learning Community
- InstructionalMaterials
- Out-of-SchoolSupport
- Innovations in Pedagogy and Instructional Design
- StudentSupports
- TeacherPeer LC (Training, Coaching, Peer Support)
- TeacherEvaluation
- TeacherCapacity Building
- Building Leader的发展
- Building Leader Evaluation
- Building Leader Peer LC
- Building Leader Development
- EffectiveBuilding Leaders
- EffectiveDistrict Leaders
- TeacherEducation
- District Leader PLC
- District Leader Development
- District Leader Accountability
- CCSSImplementation Success
- StudentOutcomes
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