Domains of Deeper Learning Competencies

- **COGNITIVE**
  - Content knowledge
  - Critical thinking/problem solving

- **INTRAPERSONAL**
  - Learning to learn
  - Academic mindsets

- **INTERPERSONAL**
  - Communication
  - Collaboration
Assumptions Underlying the Deeper Learning Initiative

- School Approaches to Promoting Deeper Learning
  - Strategies
  - Structures
  - Cultures

- Students’ Experienced Opportunities To Engage in Deeper Learning

- Student Outcomes
  - Cognitive
  - Interpersonal and Intrapersonal
  - Graduation
  - Postsecondary Success
Design for Test of Concept

1. **Examples of the concept:**
   - At least moderate implementers of DL network models
   - Serve high proportions of traditionally underserved students
   - Non-selective, whole school

2. **Comparison:**
   - What would have happened had the students not attended DL network schools?
   - Schools serving similar student pop; same jurisdiction and other criteria
   - Students matched for incoming achievement, characteristics
3. Cohort Model
   - To capture HS and post-HS experiences/outcomes?
   - 5 successive cohorts of students – defined by entry into G9
   - Combination of extant and new data collection

4. Outcomes across each domain
   - Cognitive: PISA-based Test for Schools (deep content and problem-solving – R, M, S))
     State HS Graduation tests (CAHSEE, NY Regents)
   - Inter- & Intra-personal Competencies: validated student surveys
   - HS Graduation
   - Post-secondary matriculation and persistence (NSC)
Findings in a Nutshell

- Better Assessment Scores
- Stronger Intrapersonal and Interpersonal Skills
- Higher On-Time Graduation Rates
- More Likely to Attend 4-Year Colleges
- Equitable Opportunities and Outcomes
Report 1: School Approaches

School Approaches to Promoting Deeper Learning
- Strategies
- Structures
- Cultures

Students’ Experienced Opportunities To Engage in Deeper Learning

Student Outcomes
- Cognitive
- Interpersonal and Intrapersonal
- Graduation
- Postsecondary Success
Variation in approach across network schools

Most common strategies and structures:
- project-based learning
- internship opportunities
- collaborative group work
- longer-term cumulative assessments
- advisory classes and alternative scheduling structures

These strategies and structures were reported to a greater extent in network schools than non-network schools.
Report 2: Opportunities

School Approaches to Promoting Deeper Learning
- Strategies
- Structures
- Cultures

Students’ Experienced Opportunities To Engage in Deeper Learning

Student Outcomes
- Cognitive
- Interpersonal and Intrapersonal
- Graduation
- Postsecondary Success
Estimated Average Effect of Attending a Network School on Students’ Opportunities for Deeper Learning

![Graph showing various metrics and their effect sizes related to deeper learning.](image-url)
Report 3: Student Outcomes

School Approaches to Promoting Deeper Learning
- Strategies
- Structures
- Cultures

Students’ Experienced Opportunities To Engage in Deeper Learning

Student Outcomes
- Cognitive
- Interpersonal and Intrapersonal
- Graduation
- Postsecondary Success
Outcomes

- **Graduation**: Students attending network schools had **9% higher rates of on-time graduation** compared to similar non-network students.

- **Post-secondary Attainment**:  
  - More likely to attend 4-year colleges; selective institutions  
  - Similarly likely to go on to some kind of post-secondary  
  - Positive effect on initially low-achievers (greater benefit from DL)

- **Achievement**: **Higher scores on PBTS and high school achievement test scores**
Cognitive Skill Development: Results

PBTS Outcomes

- **PBTS Reading**: Effect Size 0.20
- **PBTS Math**: Effect Size 0.11
- **PBTS Science**: Effect Size 0.10

State Assessment Outcomes

- **High School Math**: Effect Size 0.10
- **High School ELA**: Effect Size 0.05
Interpersonal and Intrapersonal Competencies: Results

- Students in network schools had higher levels of:
  - collaboration skills,
  - academic engagement,
  - motivation to learn, and
  - self-efficacy

- Measures of self-management, creative thinking skills, perseverance, and locus of control did not differ between network and non-network students.
Effects did not differ between students entering Grade 9 with below-average or above-average test scores for most outcomes.

Exception: greater benefit on post-secondary enrollment for initially low achievers.
Conclusion

- Overall evidence to support concept and assumptions underlying deeper learning initiative.

- Confidence in findings:
  - Based on robust quasi-experimental design, checks and cross-checks
  - Consistency of findings
  - Connection between DL opportunities and outcomes holds at both the school and individual student level
Opportunities and Outcomes for Individual Students

Motivation to Learn vs. Opportunities for Complex Problem Solving

Academic Engagement vs. Opportunities for Collaboration
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