Lessons learned from Dynamic Learning Maps Alternate Assessment System

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Dynamic Learning Maps (DLM) Alternate Assessments

- Computer-based assessments for students with the most significant cognitive disabilities
- Grades 3-8, high school
- Operational since 2015
  - Currently used by >20 states for state accountability purposes
  - 6 of those states use the instructionally embedded model

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Instructionally Embedded Design

- Blueprints have flexibility with some constraints
- Short assessments (5-9 items) measuring each standard
  - Items available at 5 complexity levels– provide access to content
  - System recommends complexity level; teachers can accept or override
- Administer adjacent to instruction
- Results
  - Mastery throughout the year
  - Summative results based on all responses during the year

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REPORT DATE: 01-19-2022
SUBJECT: English language arts
GRADE: 10

Individual Student End-of-Year Report
Learning Profile 2021-2022

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Dynamic Learning

NAME: Student DLM
DISTRICT: DLM District
SCHOOL: DLM School

DISTRICT ID: DLM District
STATE: DLM State
STATE ID: DLM State ID

Student's performance in 10th grade English language arts Essential Elements is summarized below. This information is based on all of the DLM tests Student took during the 2021–2022 school year. Grade 10 had 19 Essential Elements in 4 Areas available for instruction during the 2021–2022 school year. The minimum required number of Essential Elements for testing in 10th grade was 10. Student was tested on 11 Essential Elements in 4 of the 4 Areas.

Demonstrating mastery of a Level during the assessment assumes mastery of all prior Levels in the Essential Element. This table describes what skills your child demonstrated in the assessment and how those skills compare to grade level expectations.

		Level Mastery				
Area	Essential Element	1	2	3	4 (Target)	5
ELA.C1.2	ELA.EE.RL.9-10.1	Identify concrete details in a familiar story	Answer questions by referring to a text	Cite textual evidence for explicit information in text	Discriminate between explicit and implicit citations	Determine a narrative's explicit meaning
ELA.C1.2	ELA.EE.RL.9-10.2	Identify the forward sequence in a familiar routine	Identify main idea	Identify details related to the theme of a story	Recount events contributing to the theme using details	Recount main events related to the theme
ELA.C1.2	ELA.EE.RL.9-10.4	Identify descriptive words	Identify the words or phrases to complete a literal sentence	Determine the meaning of idioms and figures of speech	Determine the meaning of words and phrases	Determine the meaning and impact of words and phrases
ELA.C1.2	ELA.EE.RI.9-10.1	Identify concrete details in a familiar informational text	Identify concrete details in an informational text	Cite textual evidence for inferred information	Discriminate between citations for explicit and inferred information	Cite evidence for a text's specific meaning

Levels mastered this year | No evidence of mastery on this Essential Element | Essential Element not tested

This report is intended to serve as one source of evidence in an instructional planning process. Results combine all item responses from the full academic year. Because your child may demonstrate knowledge and skills differently across settings, the estimated mastery results shown here may not fully represent what your child knows and can do. For more information, including resources, please visit https://dynamiclearningmaps.org/states.

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A Short History: 2015 Integrated Model

- Long instructionally embedded window + short spring summative
  - How states reached this decision
  - Steps to encourage blueprint coverage

- Conversations about improving the model ~2017
  - Length of windows
  - Technical considerations (e.g., reliability)
  - Supporting implementation with fidelity

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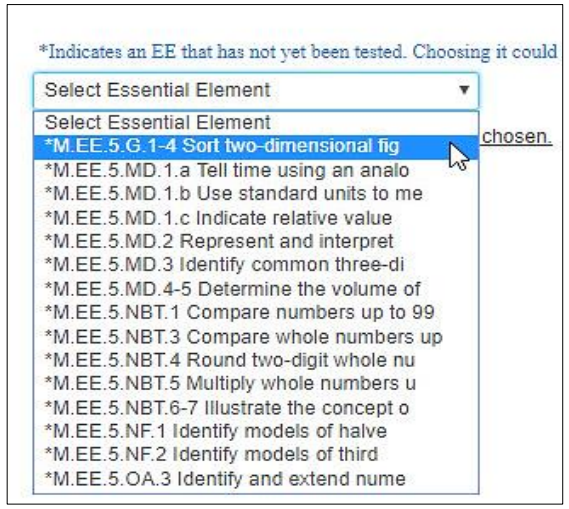
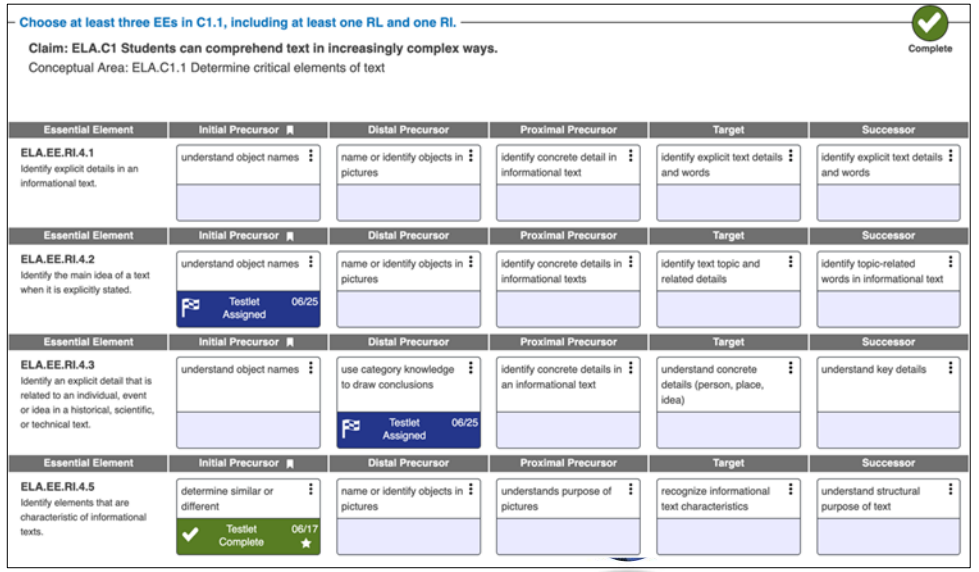
Current Instructionally Embedded Model

- Two 15-week testing windows
  - Fall (September-January) and spring (February to June)
  - Both have the flexibility of when and what to test
- Required some supports to make the transition
  - Test management
  - Reporting
  - Monitoring tools





Impacts of the Changes

- Usability
  - Fall 2021 focus groups
- Blueprint coverage
- Student achievement

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Change in Blueprint Coverage

Met or Exceeded	Integrated 2018–2019 (%)	Instr Embedded 2020–2021 (%)
ELA	75.6	95.9
Mathematics	78.8	94.5

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Lessons Learned

- Supportive conditions
- Validity
- Technical adequacy
- Communication

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Lesson #1

The right people with a shared vision and openness to change can figure out how to make it happen.

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Lesson #2

Recognize and question assumptions.

All of them.

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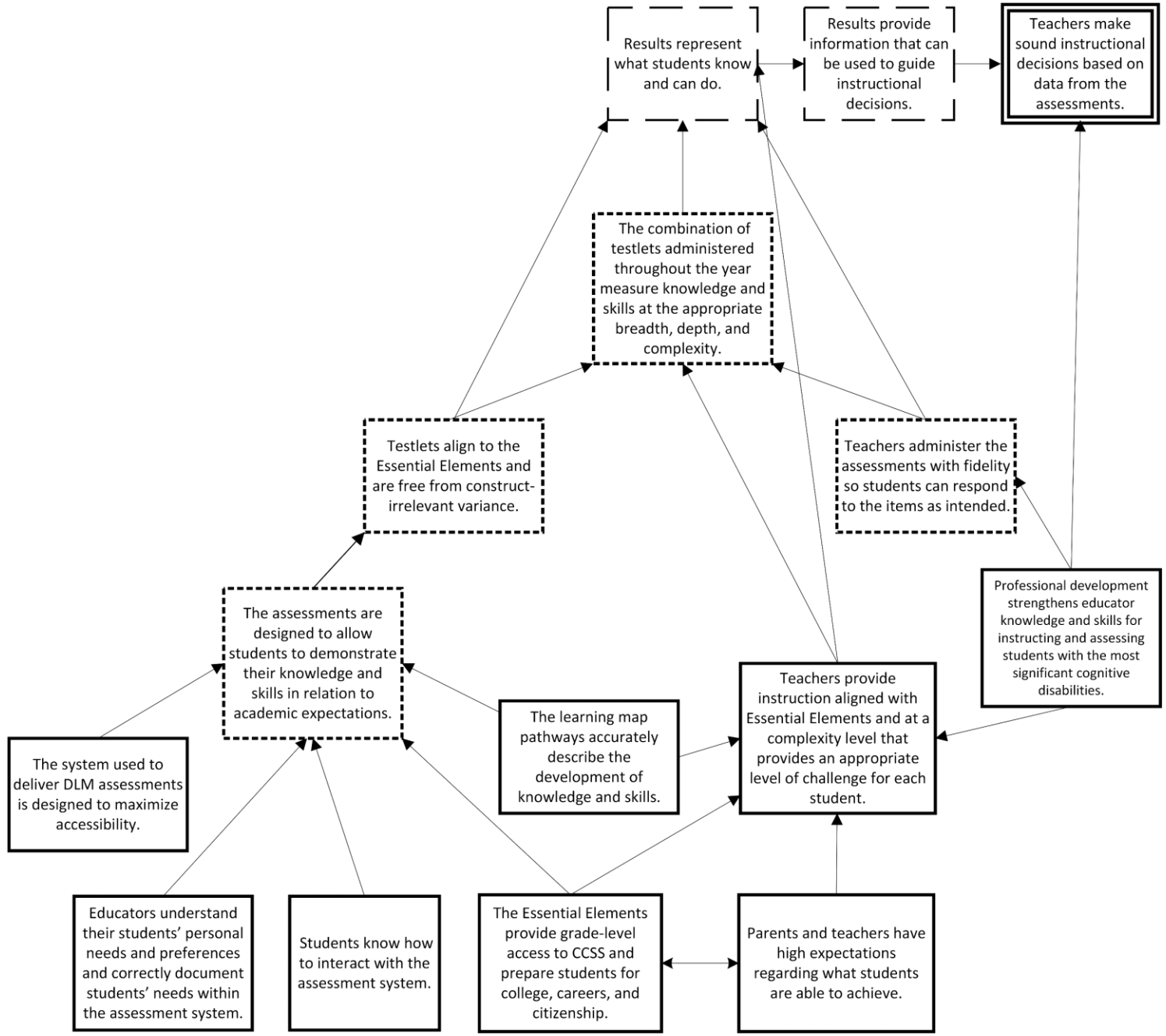
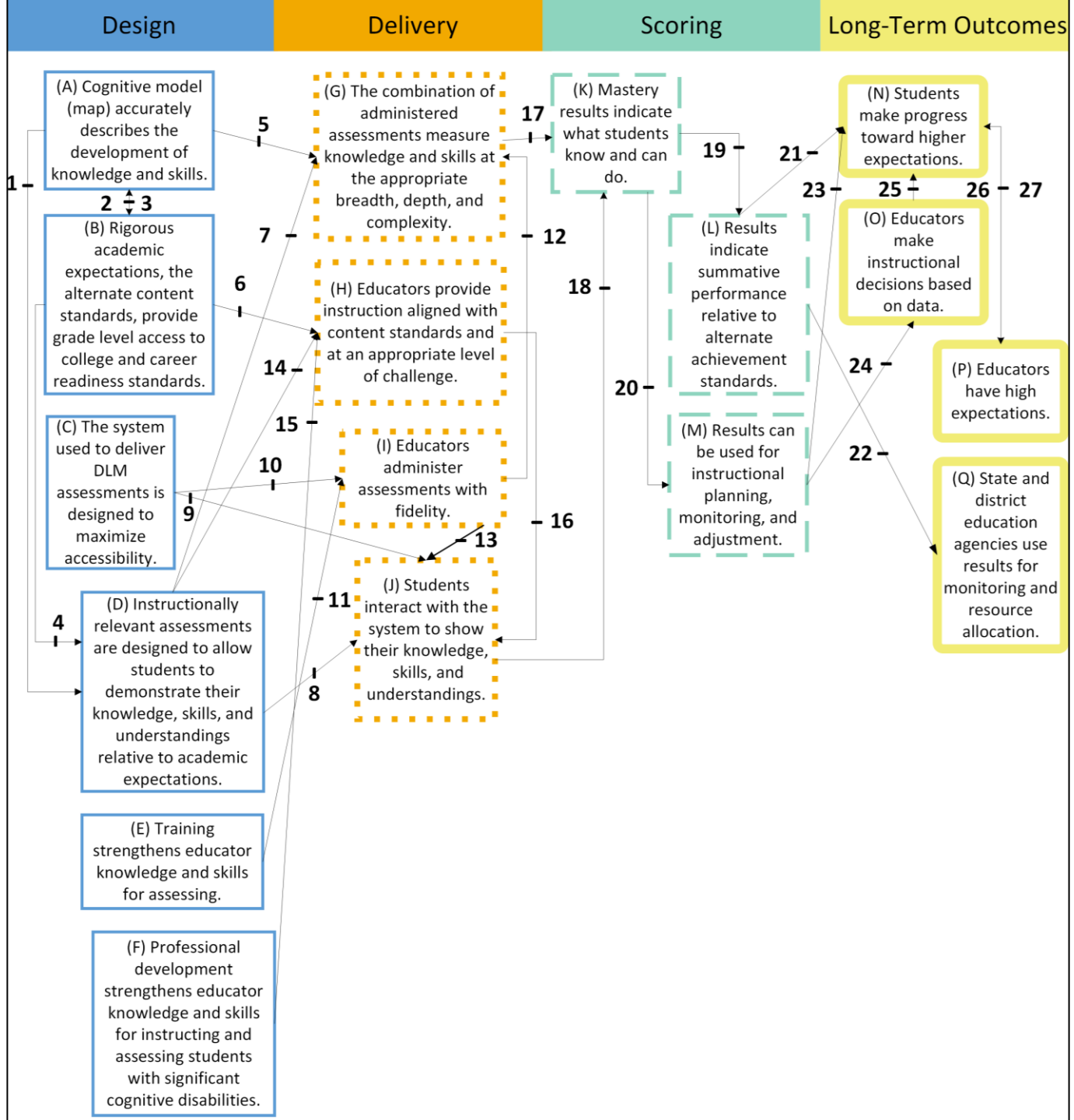

Results represent what students know and can do.
Results provide information that can be used to guide instructional decisions.
Teachers make sound instructional decisions based on data from the assessments.
The combination of testlets administered throughout the year measure knowledge and skills at the appropriate breadth, depth, and complexity.
Testlets align to the Essential Elements and are free from construct-irrelevant variance.
Teachers administer the assessments with fidelity so students can respond to the items as intended.
Professional development strengthens educator knowledge and skills for instructing and assessing students with the most significant cognitive disabilities.
The assessments are designed to allow students to demonstrate their knowledge and skills in relation to academic expectations.
The learning map pathways accurately describe the development of knowledge and skills.
Teachers provide instruction aligned with Essential Elements and at a complexity level that provides an appropriate level of challenge for each student.
The system used to deliver DLM assessments is designed to maximize accessibility.
Educators understand their students' personal needs and preferences and correctly document students' needs within the assessment system.
Students know how to interact with the assessment system.
The Essential Elements provide grade-level access to CCSS and prepare students for college, careers, and citizenship.
Parents and teachers have high expectations regarding what students are able to achieve.


Design
Delivery
Scoring
Long-Term Outcomes
(A) Cognitive model (map) accurately describes the development of knowledge and skills.
(B) Rigorous academic expectations, the alternate content standards, provide grade level access to college and career readiness standards.
(C) The system used to deliver DLM assessments is designed to maximize accessibility.
(D) Instructionally relevant assessments are designed to allow students to demonstrate their knowledge, skills, and understandings relative to academic expectations.
(E) Training strengthens educator knowledge and skills for assessing.
(F) Professional development strengthens educator knowledge and skills for instructing and assessing students with significant cognitive disabilities.
(G) The combination of administered assessments measure knowledge and skills at the appropriate breadth, depth, and complexity.
(H) Educators provide instruction aligned with content standards and at an appropriate level of challenge.
(I) Educators administer assessments with fidelity.
(J) Students interact with the system to show their knowledge, skills, and understandings.
(K) Mastery results indicate what students know and can do.
(L) Results indicate summative performance relative to alternate achievement standards.
(M) Results can be used for instructional planning, monitoring, and adjustment.
(N) Students make progress toward higher expectations.
(O) Educators make instructional decisions based on data.
(P) Educators have high expectations.
(Q) State and district education agencies use results for monitoring and resource allocation.
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Lesson #3

Articulate the rationale for every design decision.

(This will help with lessons 4 and 5.)

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Lesson #4

Be ready to do the methodological work.

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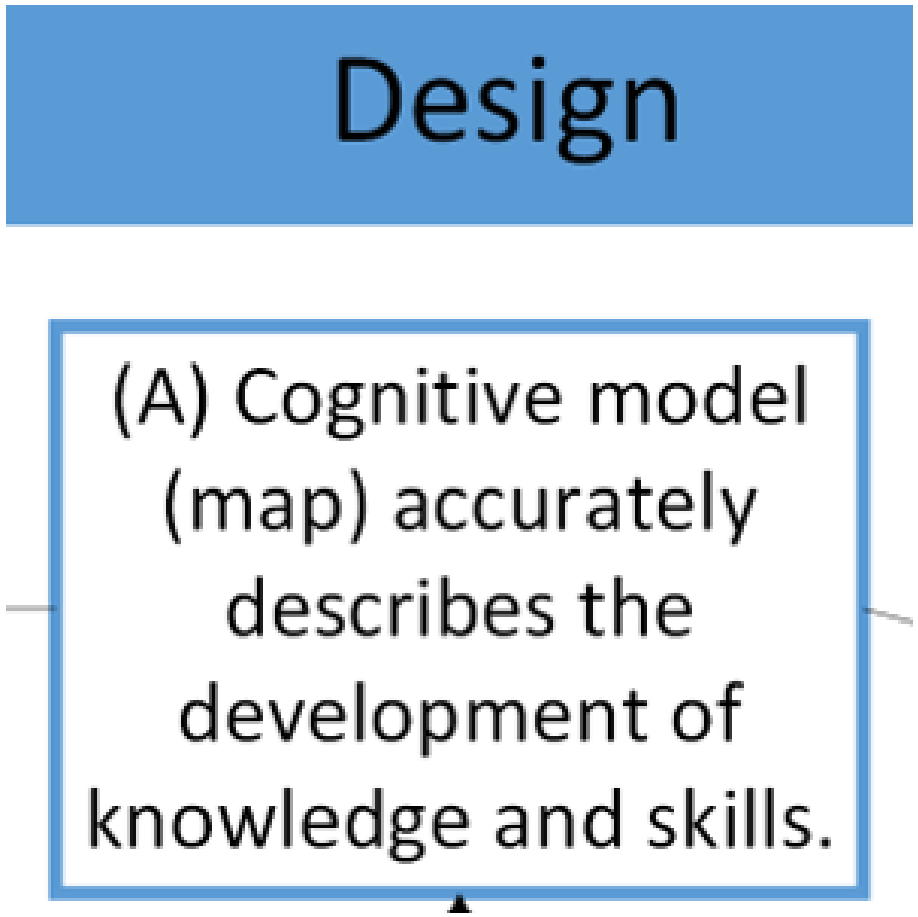

- Literature synthesis
- Sequence of internal and external reviews, following criteria
- Procedural evidence
- Empirical evidence (less sophisticated)
- Empirical evidence (more sophisticated)

Example Evidence for Instructionally Embedded Assessments

- Map model
  - External review
  - **Model-based validation**
- Test assignment
  - Teacher selections of standards, levels
  - System recommendations
- **Implementation fidelity**
- DCM scoring
  - Model fit
  - **Reliability**
- Standard setting
  - **Profile-based method**
- Score reporting
  - Design of mastery-based reports
  - Interpretation and use of mastery results

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Lesson #5

Figure out how to communicate about it.

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Still Figuring Out

- Districts still following a more traditional summative approach
- Useful measures
  - Through-year progress in a DCM world
  - Aggregating heterogeneous student data for teacher use

Questions?