

Using Alternate Assessment Results to Measure Student Progress

Meagan Karvonen
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karvonen@ku.edu

A Few Common Assumptions Behind Growth

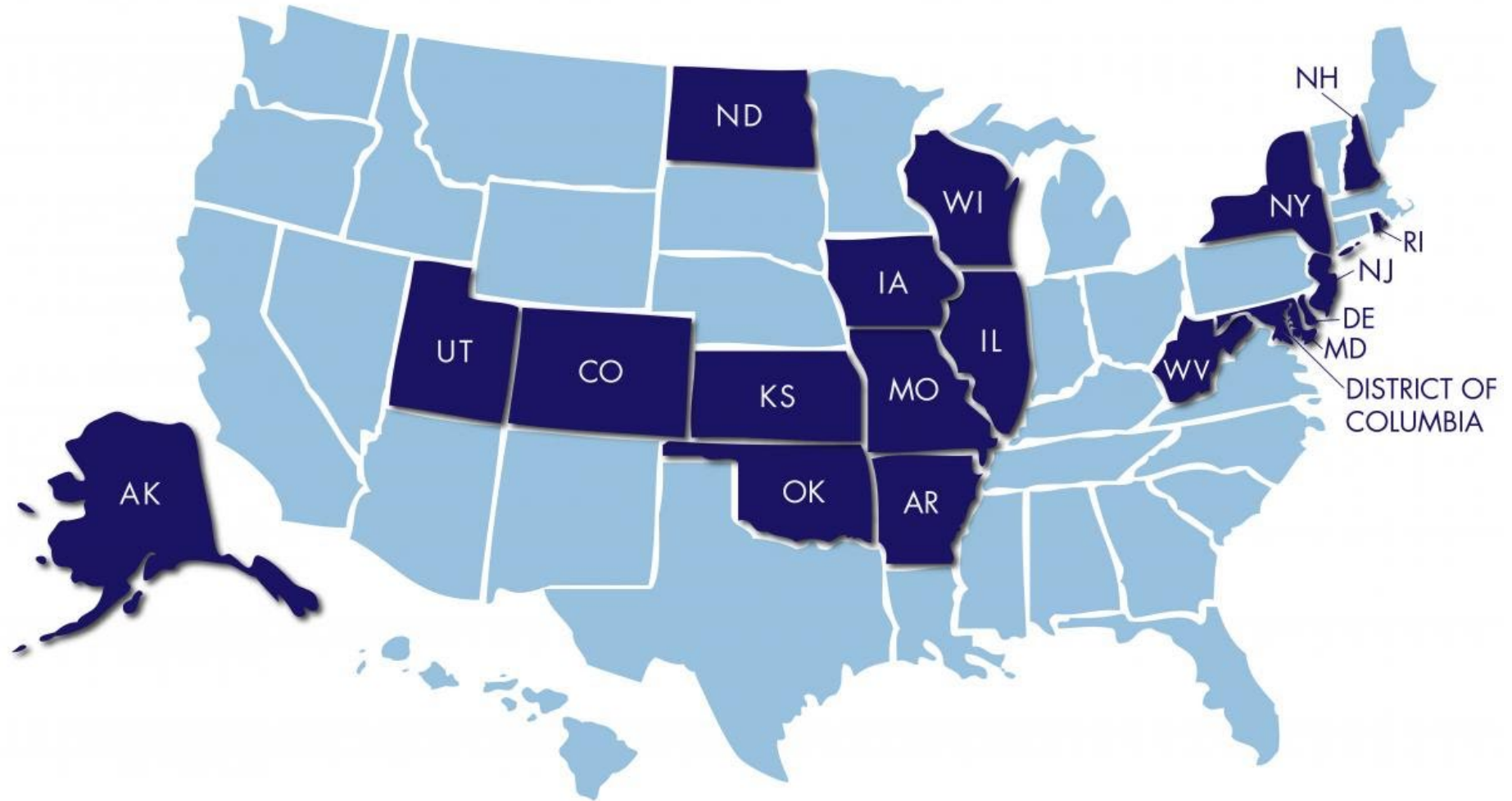
- We can measure growth in a unidimensional subject, across grades
- We know how much growth should be expected from one grade to the next
- Scores can be vertically scaled
- Populations are stable
- Performance is normally distributed

AA-AAS Growth: (A Few) Historic Challenges

- Content progressions across grades
- Scoring based on holistic judgment/performance levels or raw score
- Low cuts / high proficiency rates
- Changes in participation -- type of large-scale assessment across years/grades
- Complex population
- Small populations within states

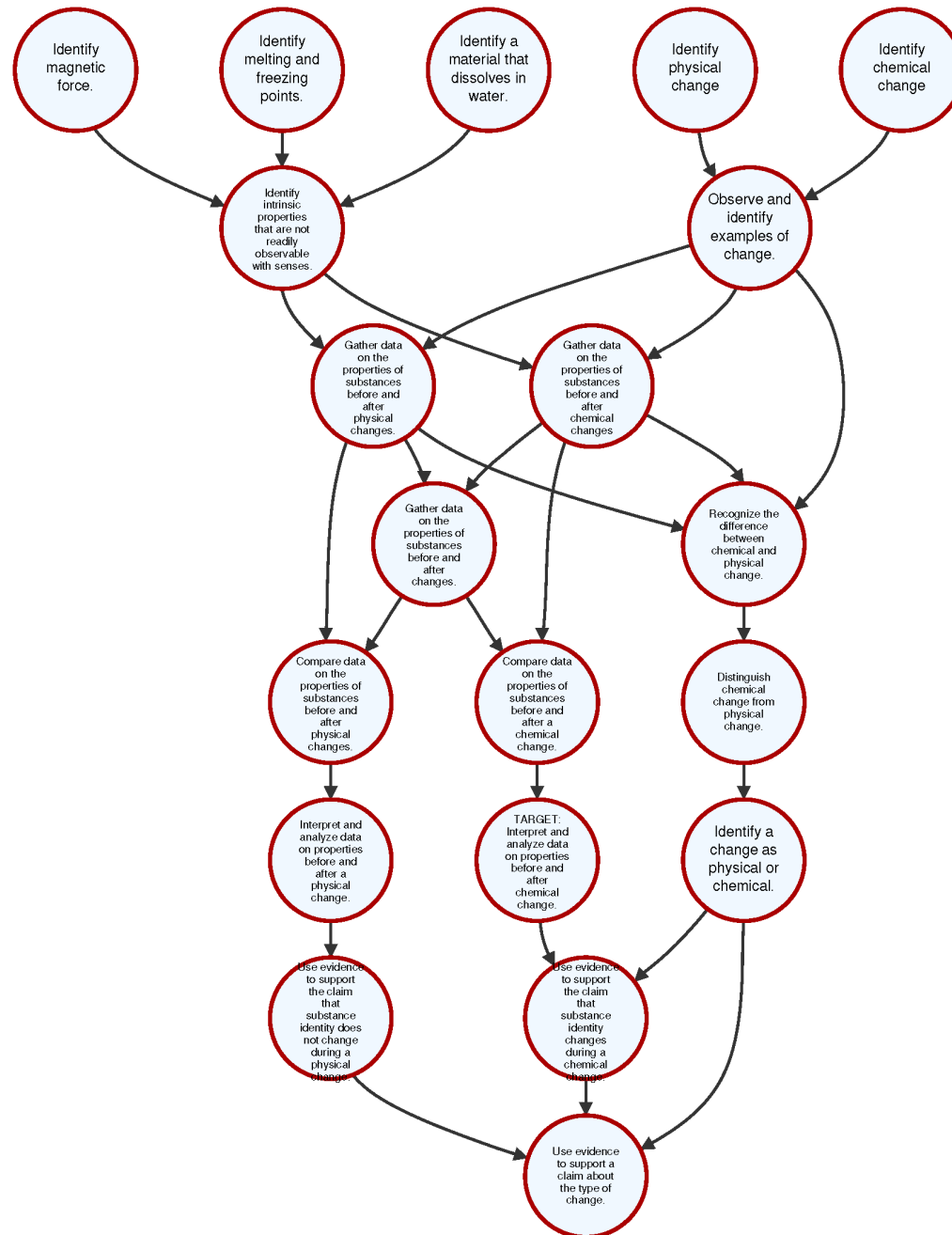


States Using DLM Assessments



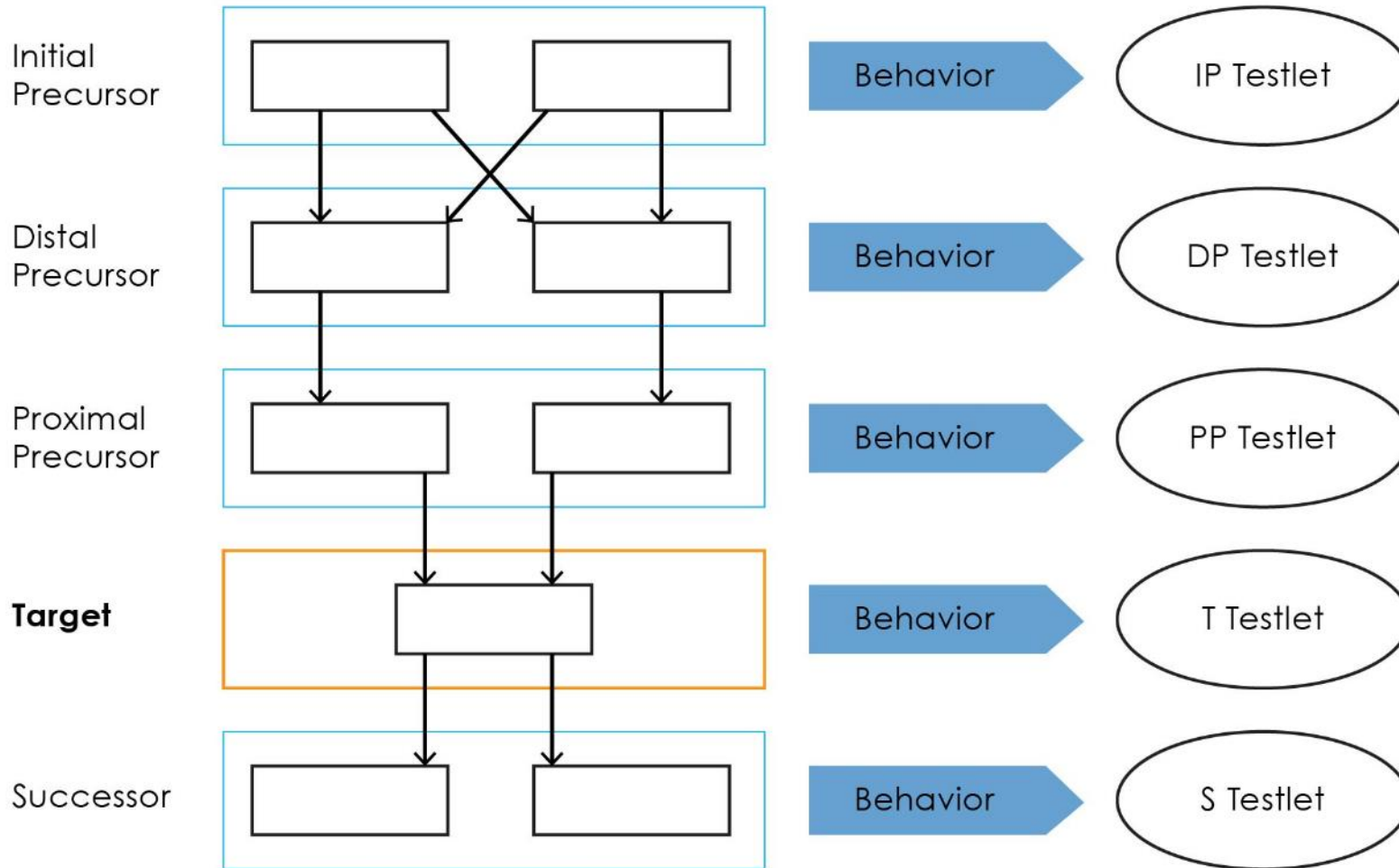
DLM System Design

Begins with fine-grained, multidimensional model of the domain



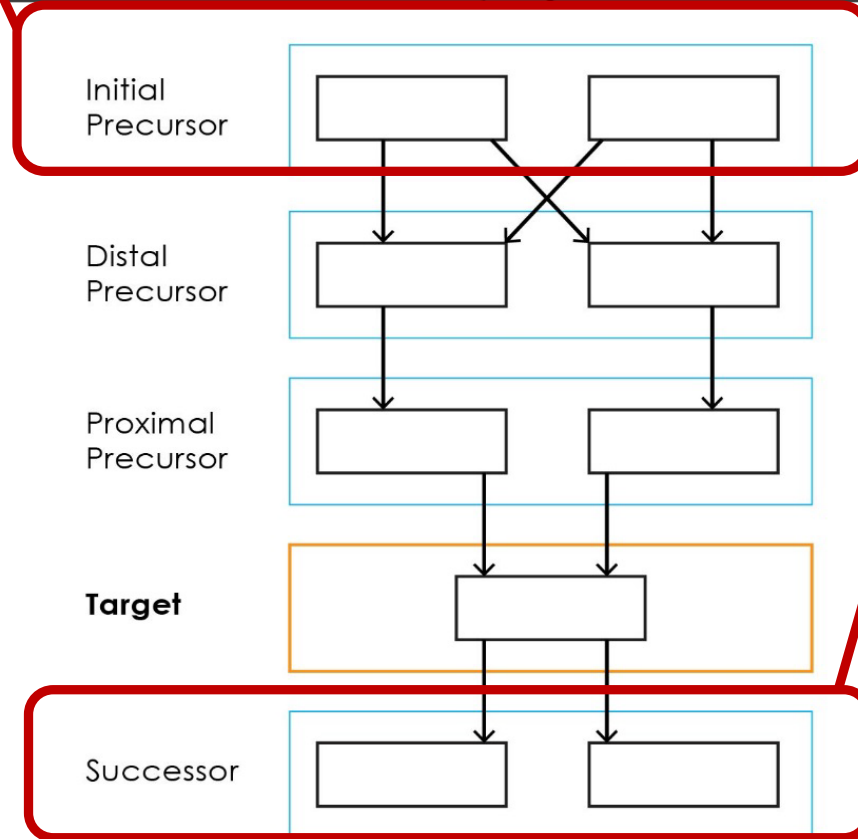
Testlets at Linkage Levels

Connect the map----- to the items developed




Example: Linkage Level Mastery

| Essential Element | Level | | | | |
|-------------------|---|--|--|---|--|
| | Initial Precursor | Distal Precursor | Proximal Precursor | Target | Successor |
| 8.NS.2.a | Recognizes separateness as objects that are not joined together. Identifies set as a group of objects sharing an attribute. | Understands the unit fraction as the quantity formed by one part when a whole is partitioned into equal parts; divide sets into two or more equal subsets. | Understands that the decimal point is a dot used to separate the whole number part from the fractional part of a number. Identifies a fraction with a denominator of 10 and match it with the corresponding decimal. | Identifies a fraction with a denominator of 100 and match it with a corresponding decimal from a set of fractions and decimals. | Compares two decimals to tenths or hundredths, and communicate the decimal $<$, $>$, or $=$ the other decimal. |



Learning Profile

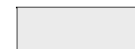
| Area | Essential Element | Level Mastery | | | | |
|----------|-------------------|---|--|--|--|--|
| | | 1 | 2 | 3 | 4 (Target)  | 5 |
| ELA.C1.1 | ELA.RI.3.1 | Attend to object characteristics | Identify familiar people, objects, places, or events | Identify concrete details in an informational text | Understand simple questions about concrete details | Identify words related to explicit information |
| ELA.C1.1 | ELA.RI.3.2 | Seek absent objects | Attend to object characteristics | Identify illustrations for a familiar text | Identify a concrete detail in an informational text | Identify explicit details in informational texts |
| ELA.C1.1 | ELA.RI.3.3 | Identify a forward sequence in a familiar routine | Identify actions in familiar routines | Identify events in a familiar informational text | Determine which event comes first | Identify temporal information or events |
| ELA.C1.1 | ELA.RI.3.5 | Seek absent objects | Identify familiar people, objects, places, or events | Identify illustrations that go with a text | Use basic text features to find information | Use specific text features to locate information |
| ELA.C1.1 | ELA.RL.3.1 | Attend to object characteristics | Identify familiar people, objects, places, or events | Answer who and what questions about details in familiar text | Answer who and what questions about story details | Answer wh- questions about story details |



Levels mastered this year



No evidence of mastery on this Essential Element



Essential Element not tested

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This report is intended to serve as one source of evidence in an instructional planning process. Because evidence of student mastery of each Essential Element is based on a limited number of items, the estimated mastery patterns depicted here may not fully represent what a student knows and can do.

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DLM Perspective on “Growth”

- Intended uses of results: include traditional summative purposes but also inform instruction
- Judgments about student progress are in reference to mastery within the fine-grained maps
- What is “typical” or “expected” growth for students with the most significant cognitive disabilities?

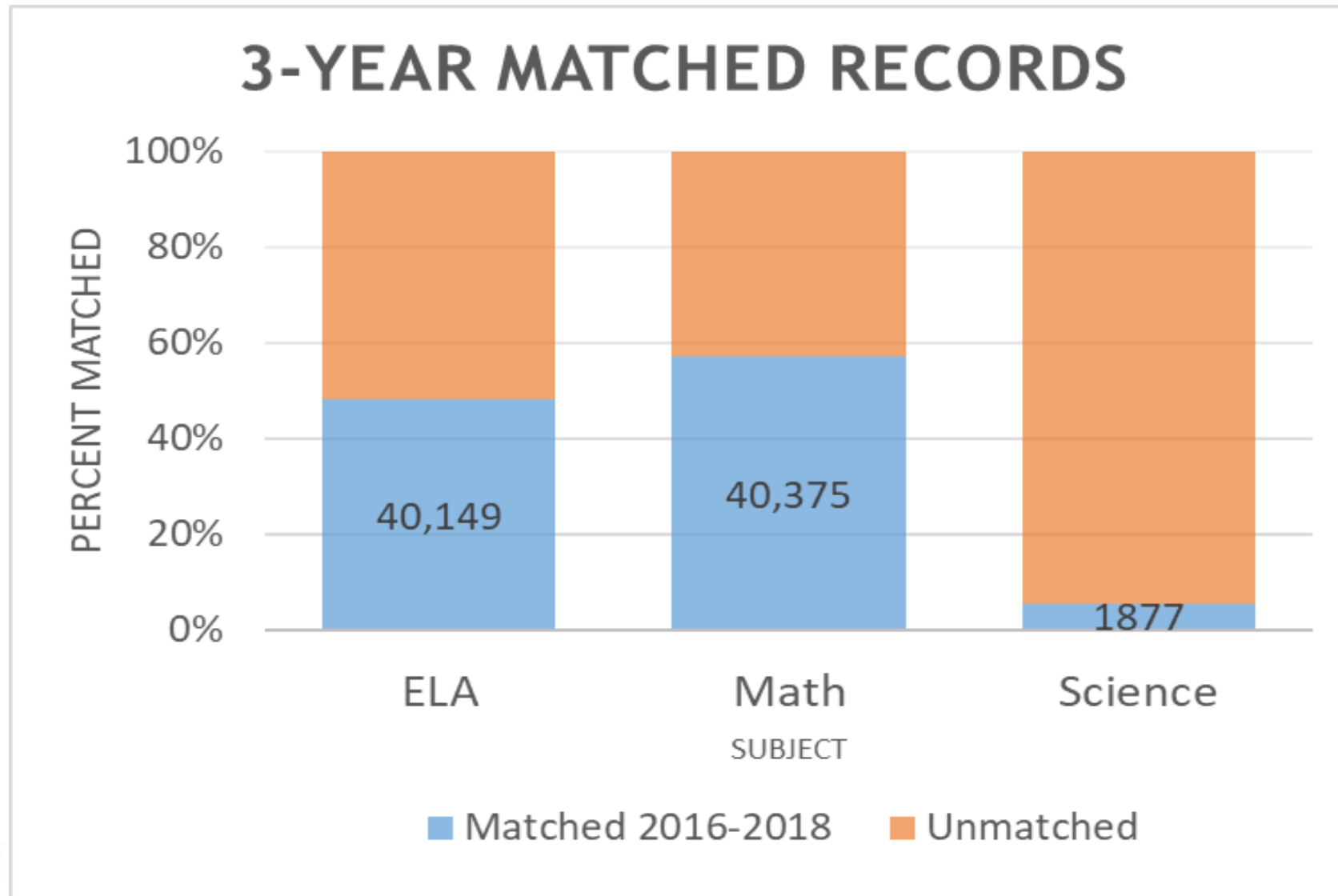
Key Considerations for DLM Alternate Assessments

1. Heterogeneity among students taking DLM assessments
2. Eligibility variation within and across states
3. Diagnostic scoring model
4. Four performance levels describe achievement relative to standards
5. Cut points made for each grade separately
6. Distribution assumptions
7. No vertical scaling or interval-level scales
8. Sample size reductions after splitting by model and grade
9. High school assessments typically not required annually
10. Matched records available for subset of population

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Record Matching

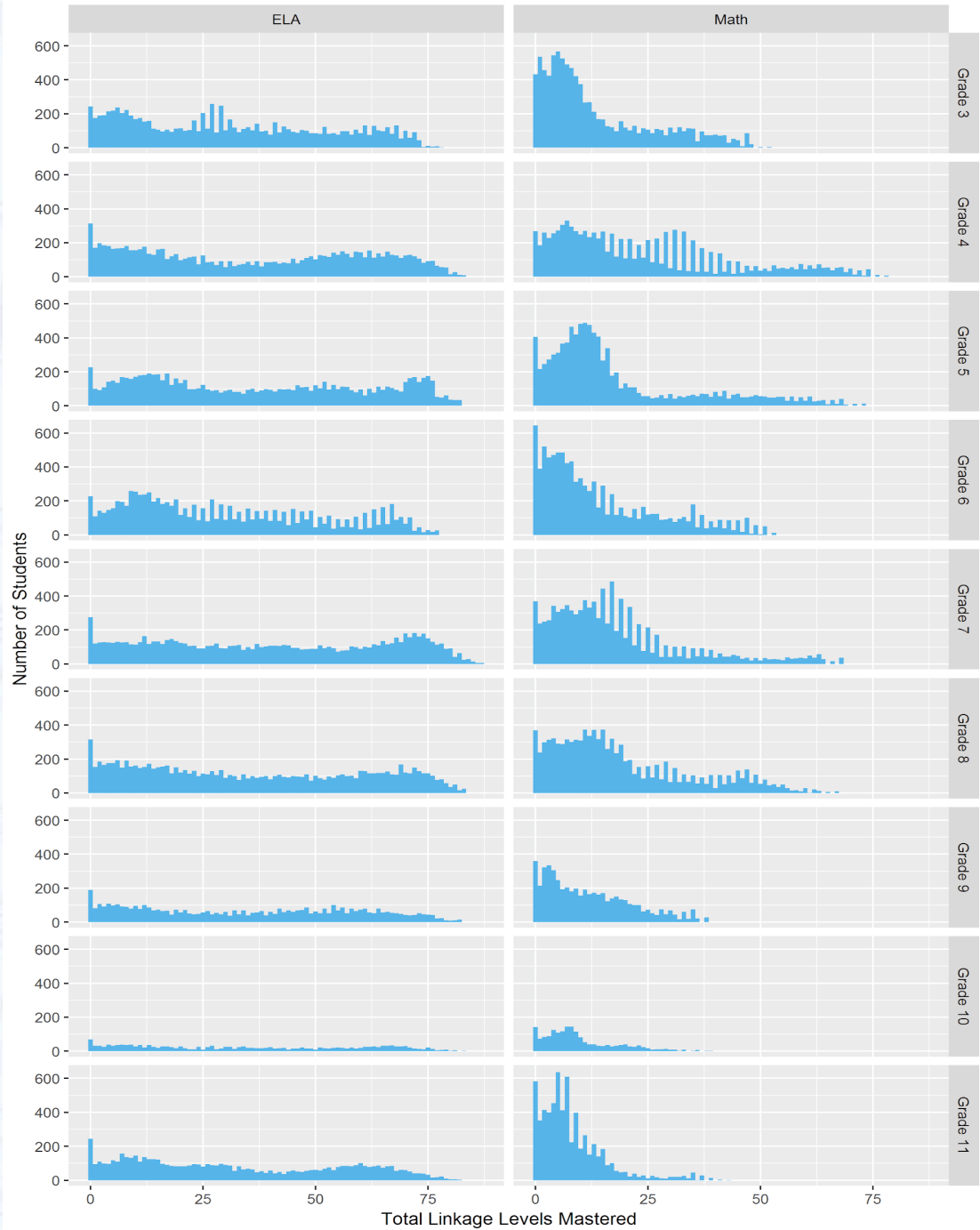


Sample Size

| Grade | Integrated | | Year-End | | Science |
|-------|------------|------|----------|------|---------|
| | ELA | Math | ELA | Math | |
| 5 | 1257 | 1253 | 7116 | 7112 | 96 |
| 6 | 1314 | 1314 | 7158 | 7153 | 105 |
| 7 | 1275 | 1273 | 7312 | 7297 | 107 |
| 8 | 1346 | 1343 | 7654 | 7650 | 111 |
| 9 | 472 | 470 | 1570 | 1567 | 145 |
| 10 | 423 | 419 | 1466 | 1463 | 628 |
| 11 | 449 | 451 | 1468 | 1472 | 606 |
| 12 | 130 | 129 | NA | NA | 79 |

Distributions

Total linkage levels mastered, by subject and grade



Distributions

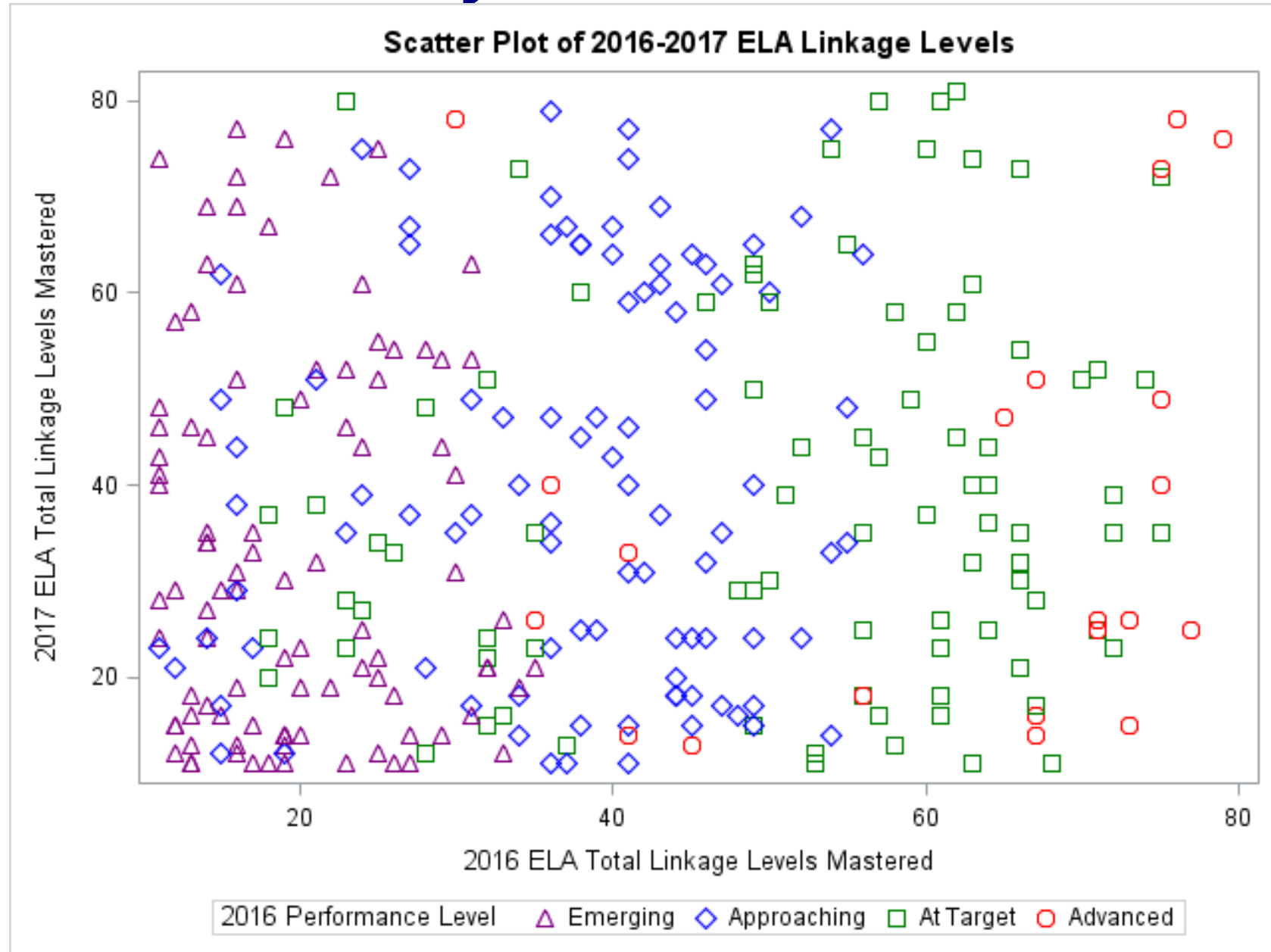
ELA Performance Level Transitions

| | | Grade 8 | | | |
|---------|-------------|----------|-------------|--------|----------|
| | | Emerging | Approaching | Target | Advanced |
| Grade 7 | Emerging | 2715 | 368 | 73 | 12 |
| | Approaching | 685 | 1186 | 579 | 71 |
| | At Target | 129 | 647 | 1126 | 303 |
| | Advanced | 10 | 50 | 365 | 372 |

Math Performance Level Transitions

| | | Grade 8 | | | |
|---------|-------------|----------|-------------|--------|----------|
| | | Emerging | Approaching | Target | Advanced |
| Grade 7 | Emerging | 4296 | 1120 | 193 | 26 |
| | Approaching | 584 | 1100 | 316 | 62 |
| | At Target | 73 | 263 | 221 | 64 |
| | Advanced | 23 | 107 | 128 | 102 |

Mastery Across Years



DLM Perspective on Student Progress

We have work to do before we can support reliable and valid measures of students' academic progress.

1. Provide states with **guidance** on appropriate use of DLM results - *provided via partner call with accountability staff*
2. Produce **white paper** summarizing common approaches and implications for DLM assessments - *on website*
3. Explore **student learning-centered progress** options rather than policy-driven or aggregated growth reporting - *in progress*

For More Information

White Paper #1 available at:
<https://tinyurl.com/dlm-growth-ch1>

- Background on growth and DLM
- Common growth measures
- Issues related to reporting growth for DLM assessments presented throughout
 - Limited to most commonly applied metrics and those that DLM partner states indicated they currently use or may intend to use