An Introduction to

The Enacted Curriculum

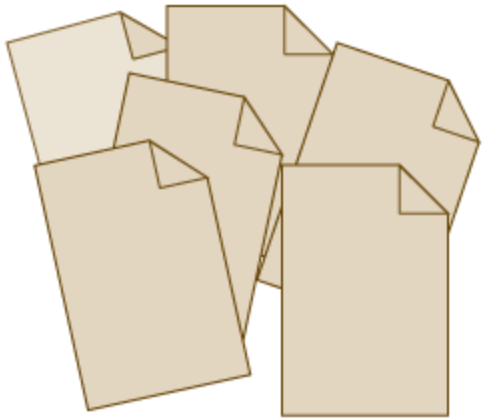
Part B – Description

Curriculum and Alignment Institute
November 8 – 9, 2010

Some Working Definitions

The "**Enacted Curriculum**" reflects the daily curricular experience of a student within instructional settings exemplified by assignments, instructional practices, and managed content.

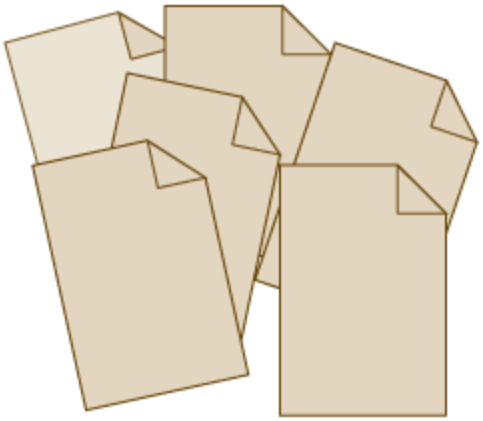
- *Textbooks & Workbooks*
- *Third-party consumables*
- *Teacher created lessons*
- *Computer-based training*
- *Virtual learning environments*
- *Social network group-learns*



Process Evidence

A first step...

Since the enacted curriculum reflects the daily curricular experience of a student, collecting graded student assignments provides the foundation for describing that experience.



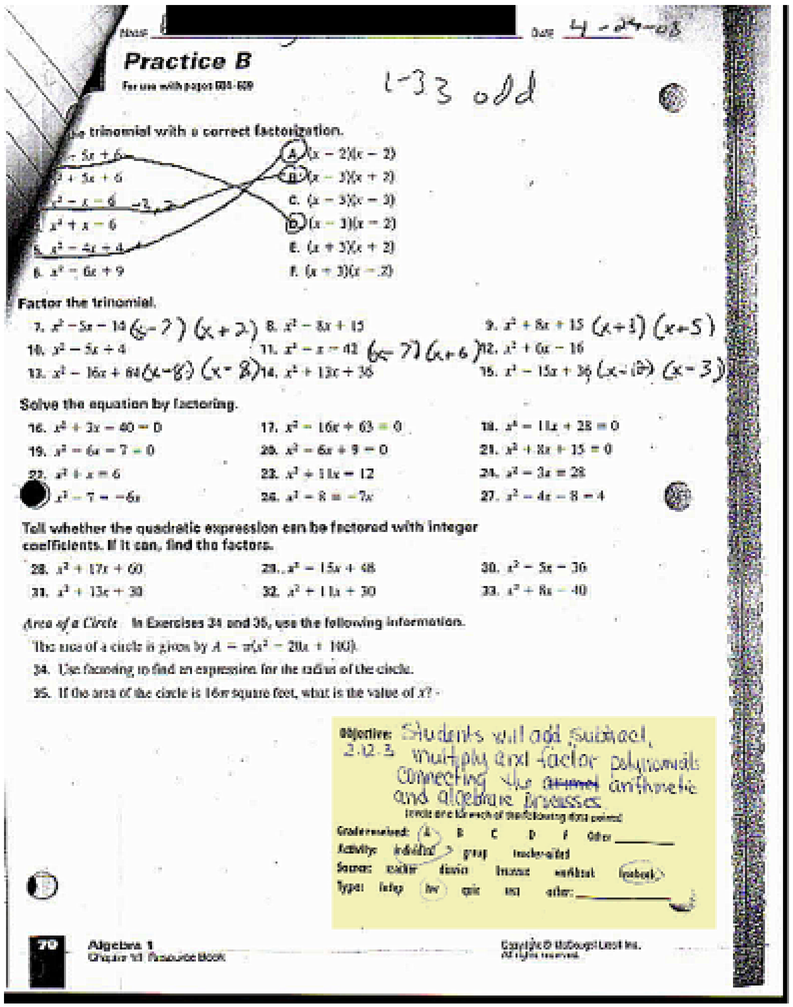
- Grades allow us to model the academic acceptance
- Assignments allow mapping of Standards and Cognitive Rigor
- Standards allow mapping of Drift and Supports

Big Picture Examples

In 2008, Nevada and Oklahoma conducted state-wide studies of their enacted curriculum to better understand the dynamics between curriculum in the classroom, instructional practices, and student performance.

- Collected 230K samples of actual graded student assignments in mathematics and Language Arts from 3rd to 8th grade classrooms
- Compiled 1.75 million records of instructional data
- Captured 507K instances of DOK, Blooms Revised Taxonomy, and alignment to standards directly from samples
- Gleaned 317K triplets (linked data for DOK, Blooms, and Standards) from samples
- Extracted 75K triplets supported by three or more blind sample reviews

Assignment Examples


Name [redacted] Date 4-24-08

Practice B

For use with pages 604-609

1-33 odd

...e trinomial with a correct factorization.

1. ... $- 5x + 6$ A. $(x - 2)(x - 2)$
2. ... $+ 5x + 6$ B. $(x - 3)(x + 2)$
3. ... $- x - 6$ C. $(x - 3)(x - 3)$
4. $x^2 + x - 6$ D. $(x - 3)(x - 2)$
5. $x^2 - 4x + 4$ E. $(x + 3)(x + 2)$
6. $x^2 - 6x + 9$ F. $(x + 3)(x - 2)$

Factor the trinomial.

7. $x^2 - 5x - 14$ $(x-7)(x+2)$ 8. $x^2 - 8x + 15$ 9. $x^2 + 8x + 15$ $(x+3)(x+5)$
10. $x^2 - 5x + 4$ 11. $x^2 - x - 42$ $(x-7)(x+6)$ 12. $x^2 + 6x - 16$
13. $x^2 - 16x + 64$ $(x-8)(x-8)$ 14. $x^2 + 13x + 36$ 15. $x^2 - 15x + 36$ $(x-12)(x-3)$

Solve the equation by factoring.

16. $x^2 + 3x - 40 = 0$ 17. $x^2 - 16x + 63 = 0$ 18. $x^2 - 11x + 28 = 0$
19. $x^2 - 6x - 7 = 0$ 20. $x^2 - 6x + 9 = 0$ 21. $x^2 + 8x + 15 = 0$
22. $x^2 + x = 6$ 23. $x^2 + 11x = 12$ 24. $x^2 - 3x = 28$
25. $x^2 - 7 = -6x$ 26. $x^2 - 8 = -7x$ 27. $x^2 - 4x - 8 = 4$

Tell whether the quadratic expression can be factored with integer coefficients. If it can, find the factors.

28. $x^2 + 17x + 60$ 29. $x^2 - 15x + 48$ 30. $x^2 - 5x - 36$
31. $x^2 + 13x + 30$ 32. $x^2 + 11x + 30$ 33. $x^2 + 8x - 40$

Area of a Circle In Exercises 34 and 35, use the following information.

The area of a circle is given by $A = \pi(x^2 - 20x + 100)$.

34. Use factoring to find an expression for the radius of the circle.
35. If the area of the circle is 16π square feet, what is the value of x?

Objective: 2.12.3 Students will add, subtract, multiply and factor polynomials connecting the arithmetic and algebraic processes.

Grade received: A B C D F Other

Activity: individual group teacher-aided

Source: teacher district literature workbook textbook

Type: hmwk hw quiz test other

79 Algebra 1 Chapter 10 Resource Book

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In terms of Cognitive Rigor:

- No problem aligns higher than DOK Level-1
- Bloom's Level-3 dominates the assignment

In terms of Instructional Acceptance:

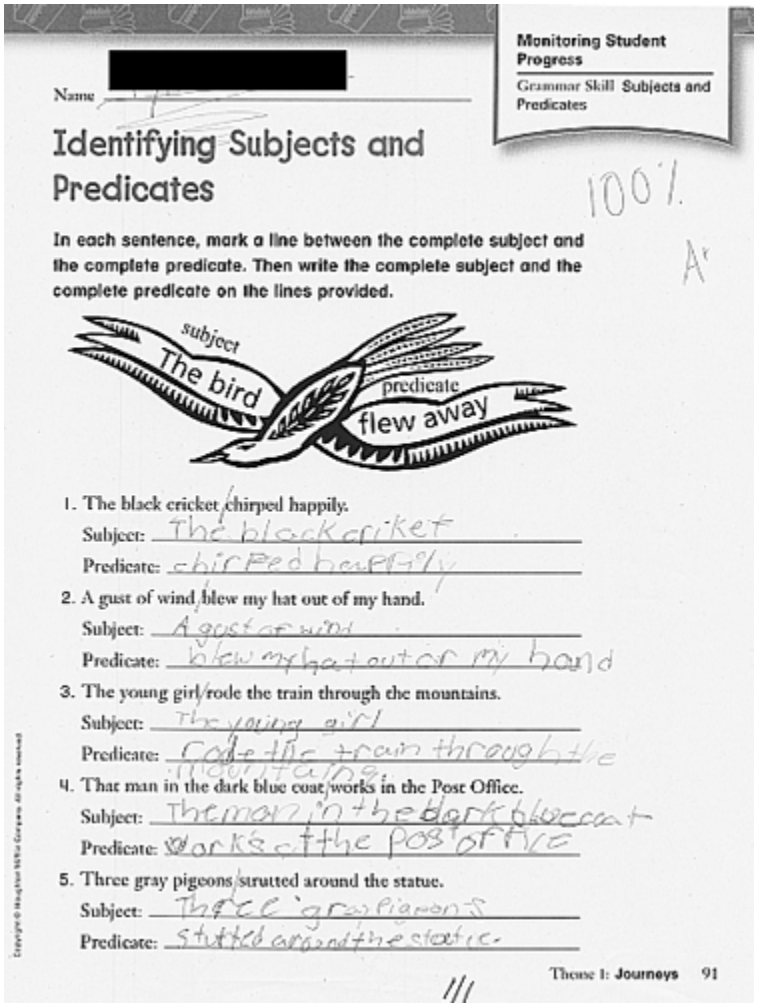
- The student received an "**A**" for an incomplete assignment
- The student showed no ***process evidence***

In terms of the student:

- How does this affect motivation?
- How does this affect learning?
- How does this affect assessment?

Assignment Examples

continued...



Monitoring Student Progress
Grammar Skill Subjects and Predicates

Name [redacted]

Identifying Subjects and Predicates

100%
A+

In each sentence, mark a line between the complete subject and the complete predicate. Then write the complete subject and the complete predicate on the lines provided.

subject: The bird
predicate: flew away

1. The black cricket chirped happily.
   Subject: The black cricket
   Predicate: chirped happily
2. A gust of wind blew my hat out of my hand.
   Subject: A gust of wind
   Predicate: blew my hat out of my hand
3. The young girl rode the train through the mountains.
   Subject: The young girl
   Predicate: rode the train through the mountains
4. That man in the dark blue coat works in the Post Office.
   Subject: The man in the dark blue coat
   Predicate: works at the post office
5. Three gray pigeons strutted around the statue.
   Subject: Three gray pigeons
   Predicate: strutted around the statue.

Theme 1: Journeys 91

In terms of Cognitive Rigor:

- The assignment had little rigor

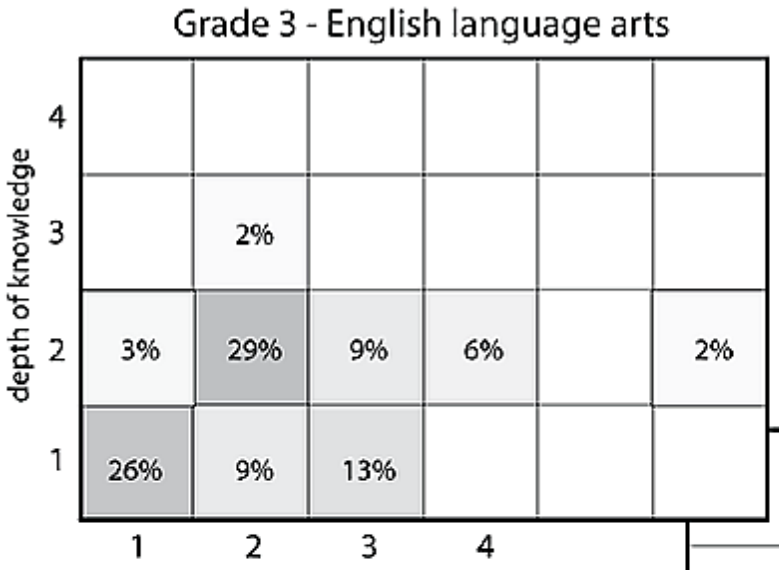
In terms of Instructional Acceptance:

- The student was in a regular 7th grade English class
- Does receiving an "**A**" on this assignment give the student realistic expectations?

Again, in terms of the student:

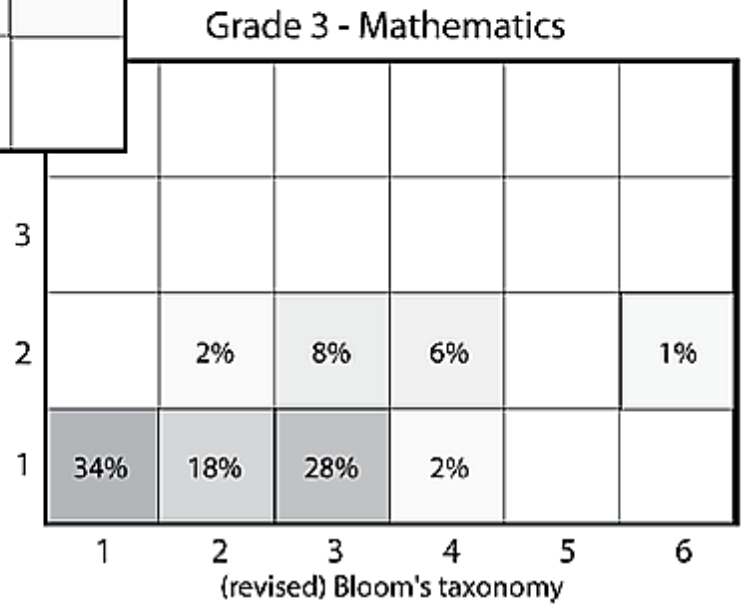
- Why was this assigned?
- How does this extend learning?

Peeking at Cognitive Rigor



In terms of Cognitive Rigor:

- Low organizational complexity
- Shallow levels of Bloom
- Low intellectual fluidity

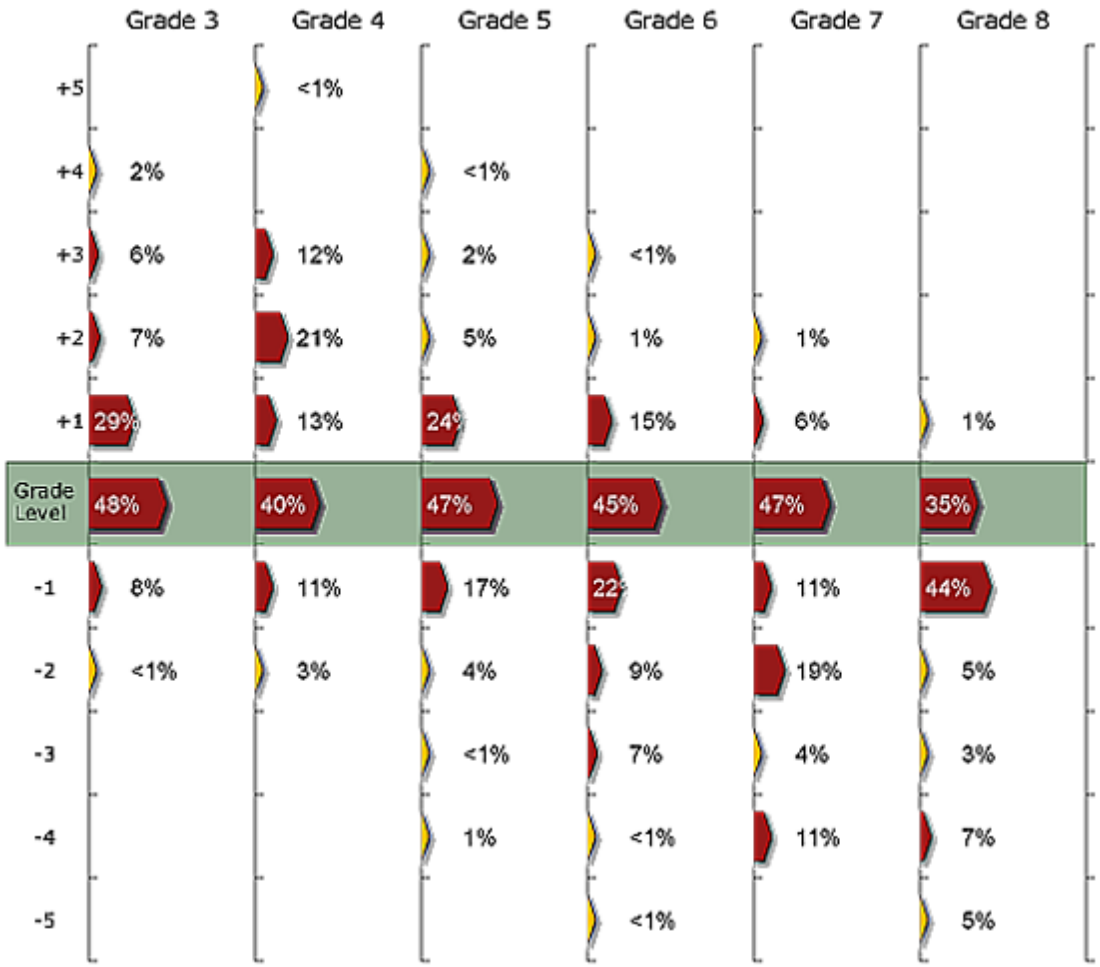


How does this affect:

- Problem solving skills?
- Critical or Creative thinking?
- 21st Century Skills?

Data drawn from the unified data set

Peeking at Grade-Level



In terms of adopted grade-levels:

- A significant range in drift existed
- Less than 50% had no drift
- Nearly 90% drifted within 3 grade-levels
- Drift moved from positive to negative across grade-levels

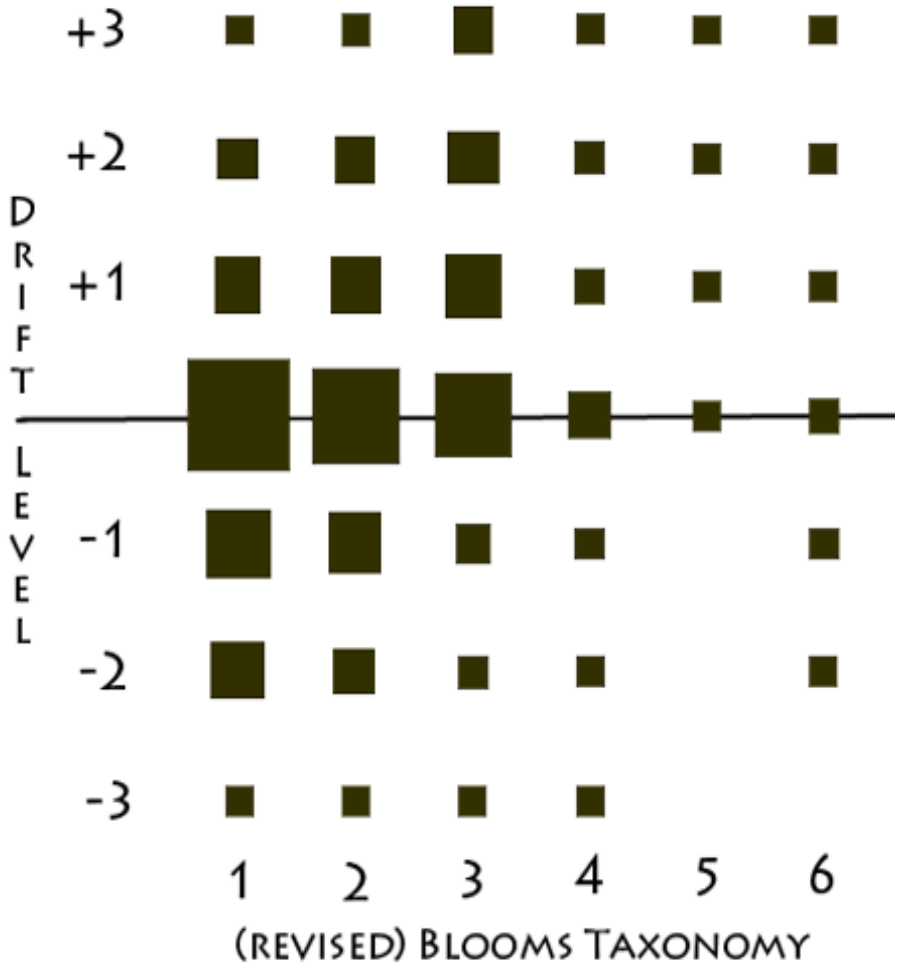
How does this affect:

- Specific grade-level skills?
- Specific grade-level concepts?
- Assessment of students?

Data drawn from the unified data set

Blooms versus Drift

(Within three grade-levels)

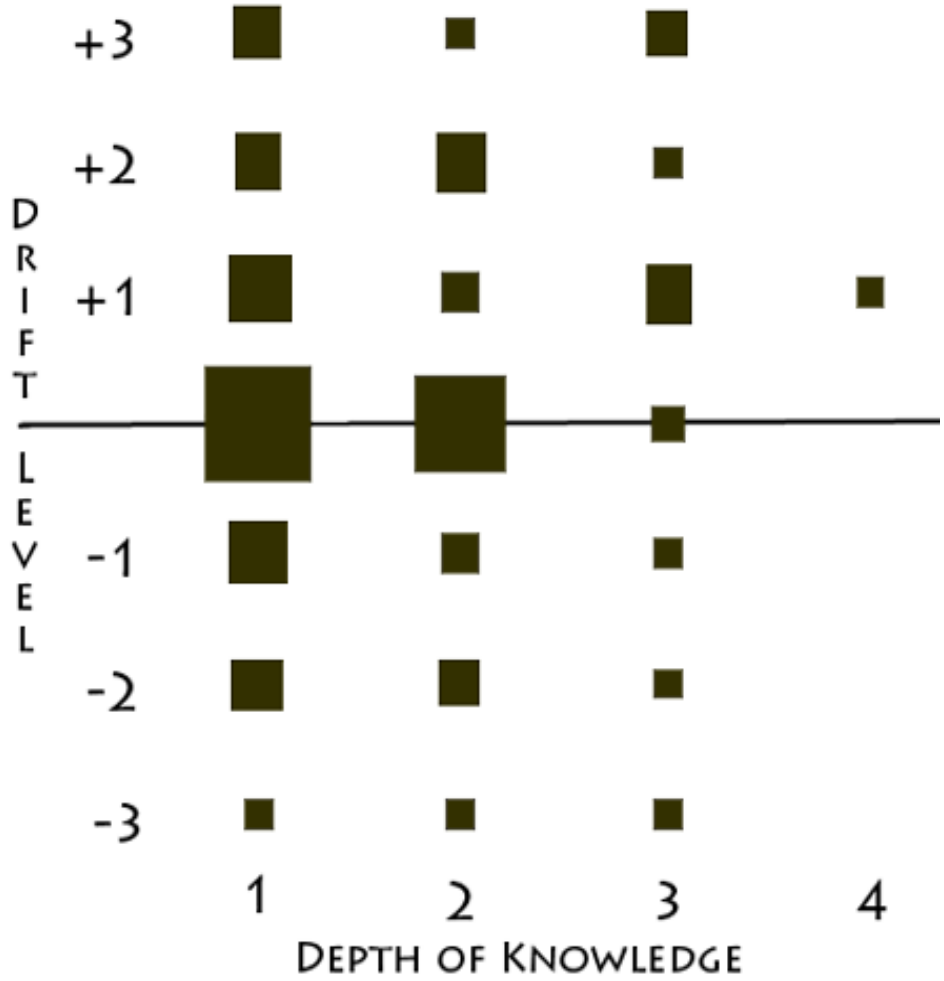


Some General Observations:

- Bloom's levels were significantly low across all assignments
- Positive Drifts favored level 3 (Apply)
- Negative Drifts avoided levels 5 (Evaluate) and 6 (Create)

DOK versus Drift

(Within three grade-levels)

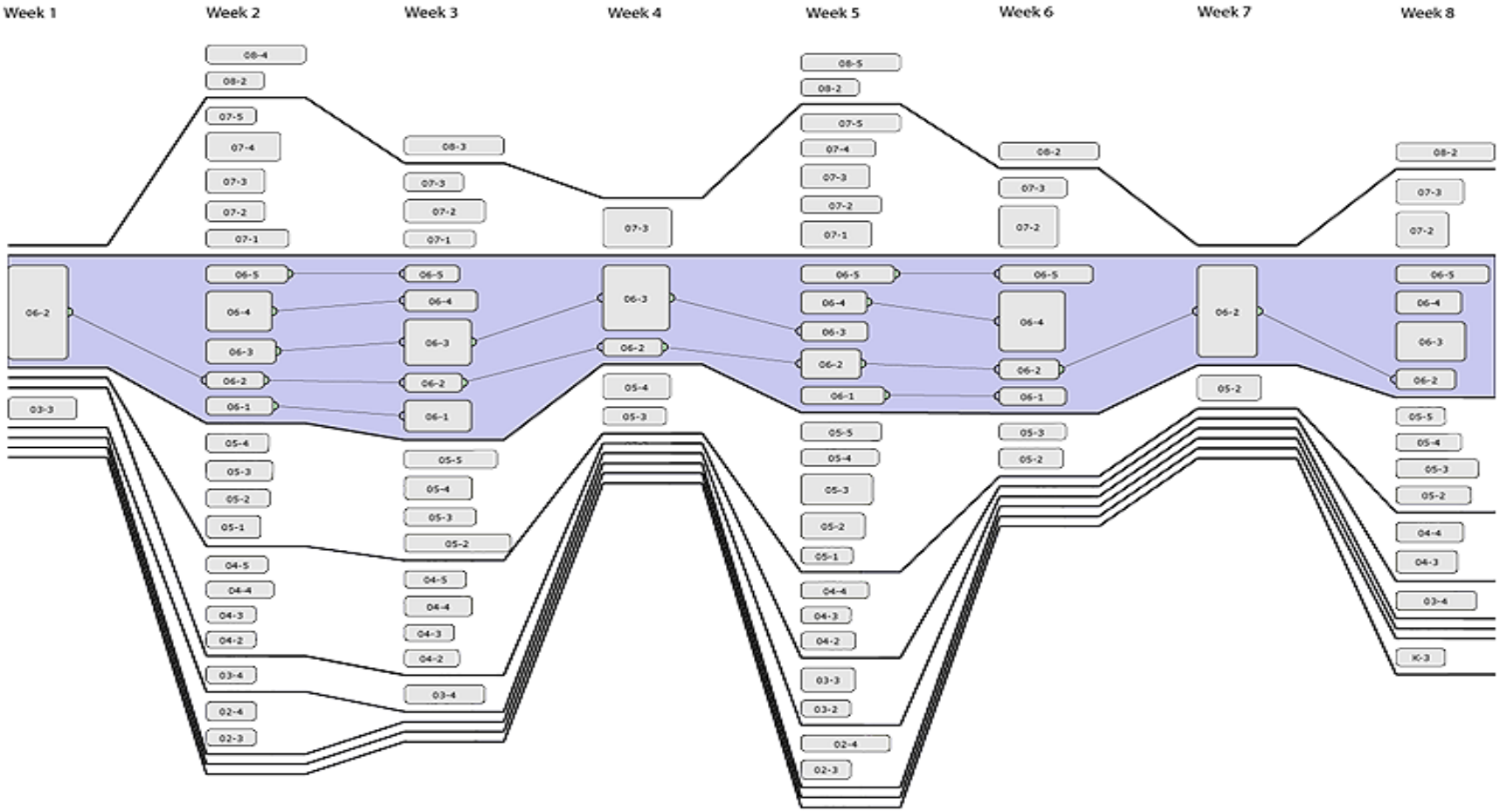


Some General Observations:

- DOK levels were significantly low across most assignments
- Positive Drifts had the largest variety
- Negative Drifts clustered mostly around levels 1 & 2

Following the Trail

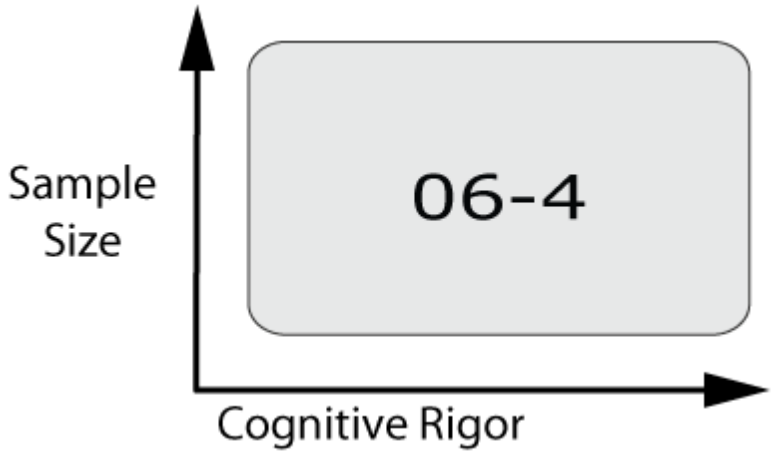
Sixth Grade Mathematics



Following the Trail

Academic footprints

When looking at process evidence for an enacted curriculum, we categorize samples for a specific alignment by its relative sample size and Cognitive Rigor.



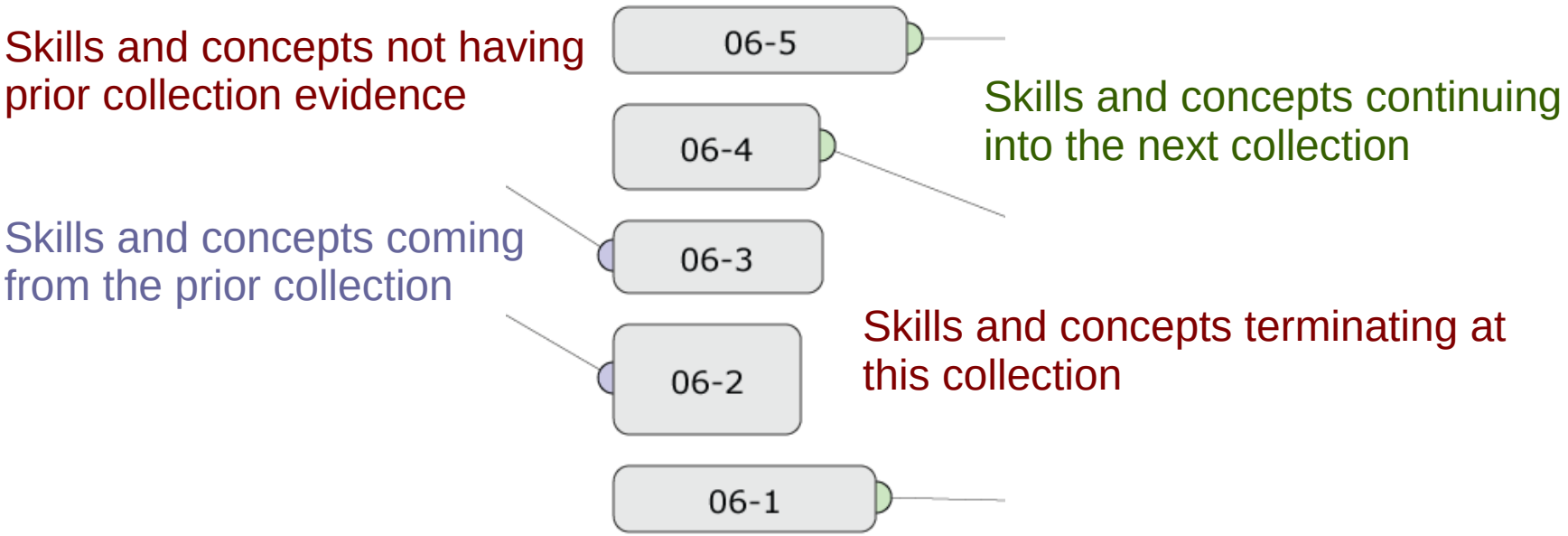
Reading a cell:

- The taller the cell, the more samples were included
- The wider the cell, the more rigorous the samples

Following the Trail

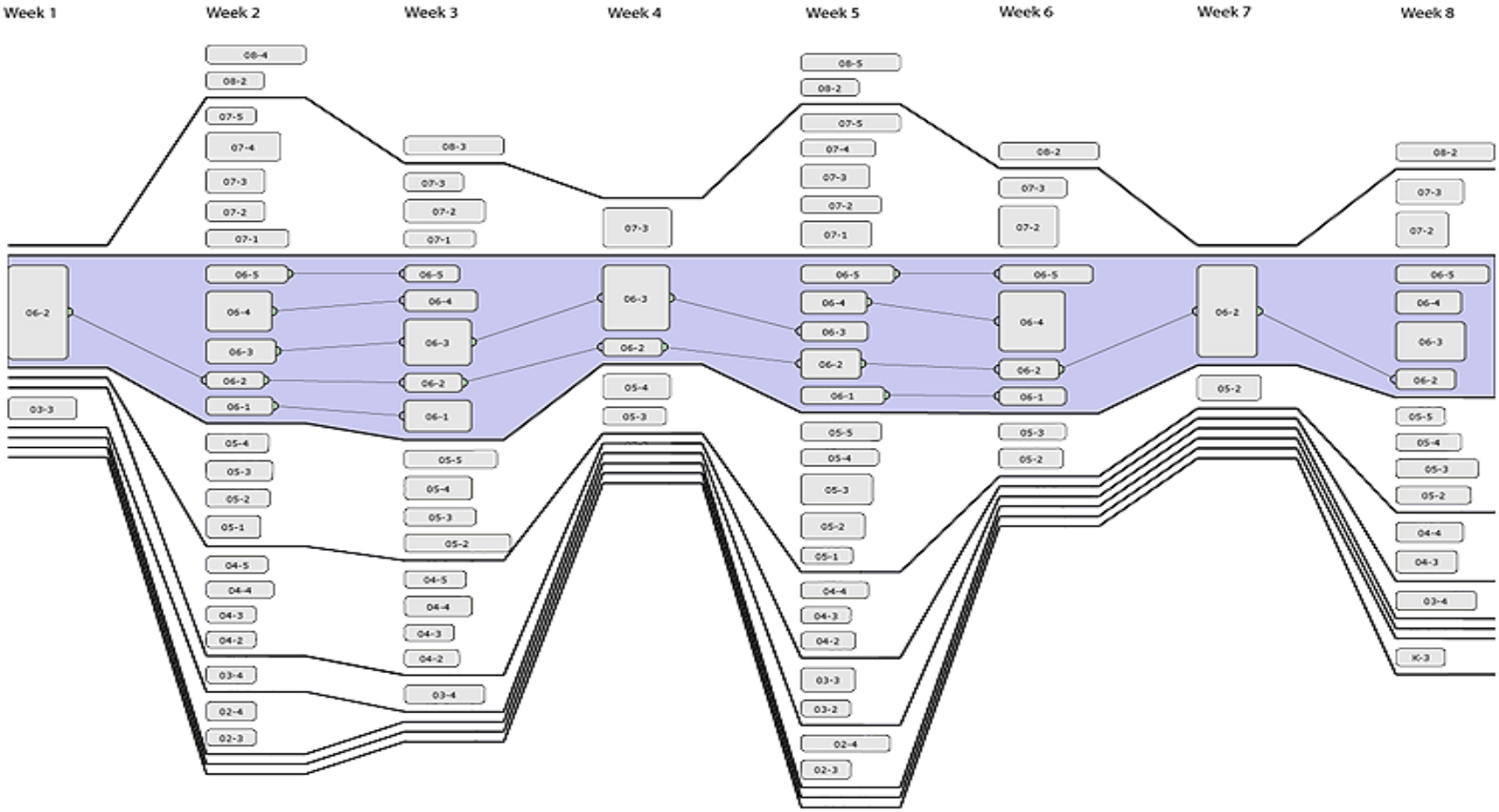
Learning paths

Connecting cells from one collection to another defines a path along which skills and concepts move through the learning experience.



Following the Trail

Learning landscape



Focusing on Objectives

Staying focused on the learning objectives remains key to effective standards-based instruction.

When looking at low versus high performing schools within the study data, high degrees of Drift coupled with low levels of cognitive rigor typically yielded depressed results.

Returning to those assignments, a clear pattern of simple questions and answers, low learner accountability, and poor self-documenting activities became evident.

Questions to Consider

What affects do long-term, low rigor instruction have on learning?

If below grade-level work is used primarily for remediation, then explain why a Bloom's level of “Recall” occurs most frequently in those assignments?

Why should we strive to provide a wider variety in rigor?

Pretend a standard defines five types of objectives, if the lesson does not illicit those responses are we asking the student to overcome instruction, or simply to respond with the required five regardless?

Open Q & A

We have some time left, so if any burning questions remain please feel free to ask.

Contacting the Presenter

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