Enhanced Learning Maps: Roadmaps for Formative Assessment

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September 14, 2017
Enhanced Learning Maps Project Goal

To improve teachers’ ability to use effective formative assessment tools and practices to provide personalized instruction resulting in greater student achievement.
Many paths to student understanding...

- Different start and end points
- Different routes
- Different gaps along the way
The ELM Project provides a mechanism to represent the wide array of student learning and abilities

- How do you figure out where students are?
- How do you move them forward?
Informed Instructional Framework

Formative Assessment
Approach to teaching that is a process for moving students forward

Learning Map Model
Visual representation of how students learn

Instructional Resources
Set learning goals and create the conditions for noticing where students are

Instructional Resources include:
- Learning Map Model document
- Teacher Notes
- Instructional Activities
- Student Activity
- Solution/Feedback Guide
How do we get students from point A to point B?
Visualizing learning progressions in the likeness of a roadmap
ELM Learning Map Model
Models how children learn from birth through high school

- History
- ELA:
  - 2310 nodes
  - 5910 connections
- Math:
  - 2285 nodes
  - 4945 connections
Map Views

• Nodes
• Connections
• Standards
• Research based
• Teacher selected
Multiple Pathways of Learning
Shana Poettker
6th grade - South Middle School

• Planning purposes
  • Connections between nodes and the
  • Progression of concepts and skills
  • Gaps in knowledge

• ELM map views support development of lessons
  • Provide evidence of concepts and skills to include
6.RP.3

**Ratios and Equivalent Ratios**

**Lesson 3**

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**Student Activity for the lesson.**

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**Ratio Road**
The map alone will not move students forward

**Learning Map Model**
Visual representation of how students learn

**Formative Assessment**
Approach to teaching that is a process for moving students forward
Formative Assessment: Assessment *for* learning

- Identify learning goals
- Generate and collect evidence of student thinking
  - Observation
  - Discussion
  - Questioning
  - Review of student work
- Adjust immediately (or near immediately) based on evidence
- Provide ongoing feedback to teachers and learners, not for grading purposes
Formative Assessment
Assessment and the learning map
Moving students forward with the map and formative assessment:

• Where is the student going?
• Where is the student now?
• Where to next?

Adapted from Margaret Heritage Presentation, 2016
Guiding Questions in Lessons

• Unique component of the ELM resources
• Link back to the learning map model
• Bring formative assessment into each lesson
• Allow teacher to adjust instruction based on student response
Guiding Questions
Student Activity
Solution Guide/Student Feedback Guide

- Independent task
- Solution Guide/Feedback Guide – link back to the learning map model
- Bring formative assessment into each unit or lesson
- Allow teacher to adjust instruction based on student response
- Flexible implementation
Locater Tool: a device or system used for determining the position or location of something

- Grounded in the map model and guided by the instructional units
- Assist teachers in creating personalized learning progressions/maps for students
Connections: Map Model and Test Item

Read the sentence from the text and answer the question.

“This frame protects the net from the rain and the sun.”

What does the sentence most likely mean?

<table>
<thead>
<tr>
<th>Option</th>
<th>Understood node(s)</th>
<th>Misunderstood node(s)</th>
<th>% answered</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The net works best when dry and cool.</td>
<td>Describe the explicit meaning of an informational text using provided details and examples Make inferences about an informational text using provided details and examples</td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>B. The frame looks like an umbrella.</td>
<td>Describe the explicit meaning of an informational text using provided details and examples Make inferences about an informational text using provided details and examples</td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>C. The frame is stronger than the net.</td>
<td>Describe the explicit meaning of an informational text using provided details and examples Make inferences about an informational text using provided details and examples</td>
<td></td>
<td>0%</td>
</tr>
<tr>
<td>D. The net is in an outdoor space. ✓</td>
<td>Identify a point the author makes in an unfamiliar informational text</td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>
Benefits of an Informed Framework for Formative Assessment

• Teacher
• Student
• Instruction
Roadmaps for Formative Assessment

• Support teachers’ use of formative assessment.
• Move all kids from point A to point B, no matter where they start.
• Improve student understanding.
Teacher video clip
Enhanced Learning Maps: Instructional Resources

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