The Classroom Assessment Environment: Teachers’ Choice of Assessments and Use of Data

Jane Delgado
Research Scientist
Research and Analysis
jdelgado@collegeboard.org
Assessment

Summative: Assessment of learning.

• “Assessments generally carried out at the end of an instructional unit or course of study for the purpose of giving grades or otherwise certifying student proficiency.” (Shepard et al., 2005)

• “…assessment (that) has increasingly been used to sum up learning…” (Black and Wiliam, 1999)

Formative: Assessment for learning.

• “Formative assessment is a process used by teachers and students during instruction that provides feedback to adjust ongoing teaching and learning to improve students’ achievement of intended instructional outcomes.” (FAST SCASS 2008)
The Classroom Assessment Environment

- Teachers have control over many aspects of assessment in the classroom.
- Teachers may decide to use the assessment tools available for multiple purposes – formative AND summative.
- State, district and school required tests and policies may affect how teachers see their role in creating the assessment environment in the classroom.
SpringBoard

• Rigorous content, learning progressions articulated from sixth grade through twelfth grade in both English language arts and mathematics. Aligned to the College Board Standards for College Success: the knowledge, skills and abilities necessary for success in college and AP.

• Model instructional units and lessons: engaging and interactive, introducing knowledge and skills in manageable steps that include opportunities to apply research-based strategies in reading, writing, oral proficiency, collaboration and problem-solving.

• Teacher professional development institutes and workshops that are designed to exemplify the strategic learning framework.

• 24-hour access to materials, exemplary student work, coaching and mentoring online.

• Balanced multiple assessment environment.
SpringBoard: Multiple Assessment Environment

- Instructional Discourse: Interactive lessons offer opportunities to review student work, monitor student talk, and observe cognitive organization.

- Embedded: Standardized formative performance tasks with scoring rubrics are embedded in each lesson. Student self-reflection is structured at intervals.

- Student Portfolios: are encouraged and structured.

- Computer-based Sequenced or Customized “diagnostic” assessments: can be used interactively online, or can be downloaded and printed out. Printed tests can be hand scored or scanned and data entered.
What SpringBoard assessments are teachers using most often?
(embedded, sequenced diagnostic, customized diagnostic)
What assessments will teachers use most often?

<table>
<thead>
<tr>
<th></th>
<th>1st Year End Spring 05</th>
<th>2nd Year End Spring 06</th>
<th>ELA</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embedded Assessments</td>
<td>53%</td>
<td>65%</td>
<td>75%</td>
<td>48%</td>
</tr>
<tr>
<td>Sequenced Assessments</td>
<td>NA</td>
<td>25%</td>
<td>33%</td>
<td>23%</td>
</tr>
<tr>
<td>Customized Assessments</td>
<td>15%</td>
<td>14%</td>
<td>18%</td>
<td>22%</td>
</tr>
</tbody>
</table>
Is the assessment information being used **summatively** (class grades) or **formatively** (as instructional feedback for students) or both?
Table 2: Percentage of teachers who agree that they use SB embedded assessments...

<table>
<thead>
<tr>
<th></th>
<th>To Determine Grades</th>
<th>To Inform Instruction</th>
<th>For Both Grades &amp; Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td>67%</td>
<td>69%</td>
<td>50%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>36%</td>
<td>55%</td>
<td>34%</td>
</tr>
<tr>
<td>Middle School</td>
<td>50%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>52%</td>
<td>62%</td>
<td></td>
</tr>
</tbody>
</table>
Table 3: Percentage of teachers who agree that they use SB online assessments…

<table>
<thead>
<tr>
<th></th>
<th>To Determine Grades</th>
<th>To Inform Instruction</th>
<th>For Both Grades &amp; Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td>20%</td>
<td>34%</td>
<td>15%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>16%</td>
<td>38%</td>
<td>13%</td>
</tr>
<tr>
<td>Middle School</td>
<td>18%</td>
<td>38%</td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td>16%</td>
<td>32%</td>
<td></td>
</tr>
</tbody>
</table>
National Teacher Assessment Survey

Spring 2008, 436 teachers: 85% taught middle school, 50% were English language arts, 50% were mathematics teachers

RESEARCH QUESTION: What impact do state, district and school assessment practices have on the choices teachers make about classroom assessments?
Cognitive Learning Theory and Assessment

Teacher Responsibility

Preparation
Assesses and activates background knowledge

Presentation
Explains concepts and strategies
Models strategies

Practice
Coaches with extensive formative feedback
Uses flexible scaffolding

Evaluation
Encourages transfer
Incorporates teacher feedback and uses information from self-assessment

Expansion
Grows in self-awareness, self-regulation and meta-cognitive abilities
Uses strategies independently in new situations

Student Responsibility

Begin active learning
Participates
Practices strategies with guidance
Continues active learning in working memory
Integrates learning into long-term memory, begins self-reflection

Formative Assessment

Environment Scale (Reliability .732)

- Students participate in structured self-assessment activities
- I interact with each student individually
- Students participate in structured peer-assessment activities
- Students work on their student portfolios
- I have time to do differentiated instruction for my students using the assessment feedback
- Other than tests, quizzes and homework, I have multiple sources of feedback for adjusting instruction
- I use some assessment events that are not graded
- All the students in my class could get an “A”
Formative Assessment Environment Scale (cont.)

• When an assessment indicates a gap in student learning, my students are confident about what to do next
• I have created assessment events for my classroom that are used regularly to track student progress
• Students who fall behind stay in my classroom and they receive additional supports to help them catch up
• Most of the students in my classroom know what they need to accomplish in order in order to do well in the course
• I have effective strategies for helping those who fall behind catch up by the end of the course
Annual State Tests and the Formative Classroom

State test characteristics measured

- The type of items on the test: multiple-choice only, essay or constructed response
- High stakes: required for graduation, used to rank order schools
- Accountability and rewards for teachers and schools
- Helpful feedback: for students in measuring progress toward a standard and for teachers to use in instruction

State test characteristics significantly associated with formative classrooms (p < .05)

- Helpful feedback for students in measuring progress toward a standard
- Helpful feedback for teachers to use in instruction
Interim Tests and the Formative Classroom

Interim Test characteristics measured

- Multiple-choice, essay or constructed response
- Embedded, end-of-unit, aligned to standards & curricula
- Measures of growth, available in time to use instructionally
- Helpful feedback: for students in measuring progress toward a standard and for teachers to use in instruction

Interim test characteristics significantly associated with formative classrooms (p < .05)

- Tests are helpful feedback for students in measuring progress
- Tests are multiple-choice AND constructed response
- Tests are helpful feedback for teachers in adjusting instruction
School or District Policies and the Formative Classroom

School and district policies measured

• Time is set aside for teachers to plan to use data in instruction
• The school has extended day and/or Saturday programs for students who fall behind
• Teachers have autonomy in determining grades
• Grades are cumulative or norm-referenced
• Separate curricular track for college bound students
• Rewards/punishments for students, teachers and schools

School and district policies significantly associated with formative classrooms (p < .05)

• Time is set aside for teachers to plan to use data in instruction
• Schools receive a financial reward when students do well
• The school has extended day and/or Saturday programs for students who fall behind
Multiple Regression

Predicted Variable = Formative Assessment Scale score
Multiple R = .405, 16% of variance accounted for

Significant Predictors in the Model

• Time is set aside for teachers to plan for the use of the test results in instruction
• Schools receive a financial reward when students do well on the tests
• The interim tests are helpful feedback for students in measuring progress
Conclusions

- Teachers have control over many aspects of assessment in the classroom: frequency, consequences, standards-based, differentiation.

- Teachers may decide to use the same assessment tools available for multiple purposes – formative AND summative. Purposes *may not be in conflict* if the focus is on growth toward a standard for all students. It will depend on the perceived priorities.

- State, district and school required tests and policies may affect how teachers see their role in creating the assessment environment in the classroom. Policies will inform teachers about what is valued in student achievement.
For further information:
Jane Delgado
Research Scientist
Research and Analysis
jdelgado@collegeboard.org
www.collegeboard.com