Closing the Learning Gap

Using Powerful Technology to Promote Formative Feedback

Rowena Mak & Anthony Reibel
Adlai E. Stevenson High School
Lincolnshire, IL
“Until we can afford newer technology for the office, just put the letter i in front of everything.”
Today’s Learning Outcomes

• discuss research on the effects of formative feedback models and examine its effect on the learning process

• acquire various strategies on how to use technology to enhance the formative feedback process and investigate its effect on student achievement

• gain awareness of technology applications that enhance the formative feedback process and reflect its current function in an academic
5 “Musts” of Formative Assessment at SHS

- Must provide effective feedback
- Must involve students in their own learning
- Must allow for adjustments in instruction based assessment results
- Must increase motivation and self-esteem
- Must directly outline “how to improve”
What do grades tell us?

“No, I can’t explain my D in math. That class teaches us about numbers, not letters!”
What is good “formative feedback?”
“...[Current] feedback is rather like a scene in the rearview mirror rather than through the windshield”

-Dylan Wiliam “Embedded Formative Feedback”
Feedback Loop

- Performance Event #1
- Reflection on Feedback
- Close “Learning Gaps”
- Performance Event #2
Should students be allowed to retake exams?

1. Yes
2. No
3. Undecided, can I answer this question again?
How many times should a student be allowed to do a retake?

1. Never
2. 1 Time
3. 2-3 Times
4. Until they reach “mastery”
What motivates students to improve performance?

1. Prizes, Goodies
2. Grades
3. Positive Feedback
4. Learning for learning’s sake
5. Grades and Positive feedback
What is the purpose of homework?

1. To reinforce what was learned in class — practice
2. To provide opportunities for students to reflect on their learning — *did you really get it?*
3. For discipline - having homework teaches students about good work ethic
4. I’m not sure - I do it because it’s part of the routine
Effective Feedback Loops should...

- be “corrective” in nature
- be timely - 48 Hour Rule
- be specific to a criterion
- allow students to clearly understand what to do next
- allow for multiple performance events

**based on Marzano**
Formative Feedback Loop

- **Desired state** (Proficiency Goal or Level)
- **Current state** (Where is the student’s understanding at now)
- **Compare current with desired state** (Reflection Medium)
- **Bring the current state in line with desired state** (Academic Vehicle)

*based on Dylan Wiliam “Embedded Formative Feedback”*
What happens when students use Feedback Loops?
Learning Target Subtest #28

Progress Points Treatment (24-48 Hrs)

Feedback Loop Users

Control

Control Group Received traditional feedback such as grades and written feedback between pre and post test.

Progress Points Group Received traditional feedback such as grades and written feedback, as well, but then used Progress Points to identify gaps in their learning, set improvement goals, used Progress Points to close gaps, then took post test if Progress Points Mastery was achieved.
Semester 2 Final Exam Average Score: Spanish 2

2007: 81%
2008: 84%
2009: 85%
2010: 85%
2011 Control: 82%
2011 Feedback Loop Users: 91%

-2% DECREASE from 4 year average
+7% Increase from 4 year average

Approx: 200 Students
What we noticed was....

- Most students when given the chance (performance event #2) will fix their own misunderstandings and learning gaps.
- Students can “target” the help they need
- Students study more purposefully
- Higher growth in (Test to Retake) percentage than on (Quiz to Test).
Lessons learned from feedback loops

• Most students when given the chance (performance event #2) will fix their own misunderstandings and learning gaps.
• Students can “target” the help they need
• Students can focus on the knowing-doing gap
• Students study more purposefully
• Higher growth in (Test to Retake) percentage than on (Quiz to Test).
Benefits for the teachers

Teacher can clearly identify:

- If a student has **solidified** their understanding
- If there is a positive or negative **pattern** in thinking
- If there still **remains a gap** in learning
- If a student has **regressed**
Benefits for the students

4 Essential Ways

- Recognize the connection between effort/practice and achievement
- Practice goal setting
- Encourage to self-advocate and self-direct
- Self-reflect on “learning gaps”
What are some new understandings you may have about feedback?
Technology that Promotes Formative Assessment & Feedback Loops
Technology Tools

- **Assessment Generators**
  - Google docs
  - Quia
  - ProProfs

- **Feedback Tools**
  - QR Codes
  - Screenr.com
  - YouTube

- **Feedback Loop Generator**
  - Progress Points (www.progresspoints.com)
Google Docs
<table>
<thead>
<tr>
<th>Timestamp</th>
<th>Name</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/9/2011 10:00:28</td>
<td>D</td>
<td>Reibel</td>
</tr>
</tbody>
</table>

En tu opinión, ¿van a ayudar la gorrita, la bufanda y las gotitas de limón al burro a recuperarse? ¿Por qué sí o por qué no?

No porque no me gusta a mi burro es un mal burro. Si ellos necesitan para un yeso y para recuperarse.

¿Qué piensas que es necesario que haga una persona con dolor de cabeza, dolor de garganta y dolor en el corazón?

No porque personas Quien duele es un causa lost.

Una persona necesita ir a la hospital si dolor de cabeza, dolor de garganta y dolor en el corazón.
<table>
<thead>
<tr>
<th>Timestamp</th>
<th>Escríban su nombre</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/25/2010 10:29:06</td>
<td>Filipovich</td>
<td>Ese</td>
<td>Estas</td>
<td>Aquella</td>
<td>Ese</td>
<td>Aquella</td>
<td>Ese</td>
<td>Aquel</td>
</tr>
<tr>
<td>10/25/2010 10:30:29</td>
<td>Roselli</td>
<td>Ese</td>
<td>Estas</td>
<td>Aquella</td>
<td>Este</td>
<td>Aquella</td>
<td>Estes</td>
<td>Estos</td>
</tr>
<tr>
<td>10/25/2010 10:30:32</td>
<td>Kayla tyus</td>
<td>Ese</td>
<td>Estas</td>
<td>Aquella</td>
<td>Este</td>
<td>Aquella</td>
<td>Estes</td>
<td>Esa</td>
</tr>
<tr>
<td>10/25/2010 10:30:52</td>
<td>Ben voermans</td>
<td>Ese</td>
<td>Estas</td>
<td>Aquella</td>
<td>Este</td>
<td>Aquella</td>
<td>Estes</td>
<td>Esa</td>
</tr>
<tr>
<td>10/25/2010 10:31:32</td>
<td>katie</td>
<td>Ese</td>
<td>Estas</td>
<td>Aquella</td>
<td>Ese</td>
<td>Aquella</td>
<td>Estes</td>
<td>Estas</td>
</tr>
</tbody>
</table>
Formative Feedback Quiz

1. _______ las dos de la tarde.
   - era
   - eran
   - fue
   - fueron

Incorrecta
remember LUSE D PATH
The H stands for H.
We use imperfect when we want to state simply what time it was in the past.
Please retake the question

Buen Trabajo - Pregunta dos
De repente el Sr. Reibel _______ *
   - gritó
   - grité
   - gritaba
   - grita
# Differentiated Quiz

## U2E1 - Posesivos

<table>
<thead>
<tr>
<th>Timestamp</th>
<th>A posessive shows...</th>
<th>Mine (las muñecas) (HDST1)</th>
<th>Yours - tú (los árboles) (HDST2)</th>
<th>I like his (los zapatos) (HDST3)</th>
<th>Do you (tú) like ours? (los juguetes) (HDST4)</th>
<th>She has his books (HDR2)</th>
<th>I want your blocks (HDR3)</th>
<th>Ours (HDR4)</th>
</tr>
</thead>
</table>
Feedback should be "corrective" in nature
Feedback should be timely

Screencasting
Formative Assessment: Evident Patterns

- Increases “mindfulness” in learning targets
- Creates meaningful teacher-student interaction
- Success is long lasting, not transient
- Lowers overgeneralization of skills or errors
- Teaches students that ability is not fixed
- Increases task-involved feedback, lowers ego-based feedback (grades)
The Two Essential Questions

Where are my “Gaps”?  
I know what my “Gaps” are.

How do I close them?  
I know how to close them.
How can you create “feedback loops”?

Please turn to someone next to you and answer this question.

- **(Goal Line)** - Desired state (Proficiency)
- **(Baseline Entry)** - Current state
- **(Growth Chart)** - Compare current with desired state
- **(Envelopes)** - Bring the current state in line with desired state
What do grades tell us?

With a partner, take a few minutes to write your own caption
Questions?

- techgap.weebly.com
- powerfulformativeassessment.weebly.com
- areibel@d125.org
- rmak@d125.org