Feedback Structures that Foster a Growth Mindset

Increase student metacognition and decrease grading time.

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Do Now - What is your mindset?

Take the quiz in your packet or online.

Take the quiz online: http://community.mindsetworks.com/my-mindset?force=1

Some other Self Assessments to determine mindsets in the classroom

http://www.mindsetworks.com/assess/
Objectives of Session

Summarize the idea of a growth mindset. Compare and contrast growth and fixed mindset.

Introduce feedback structures that promote the growth mindset by providing the opportunity for students to become more metacognitive about their learning.

Introduce structures to increase feedback opportunities for students without increasing grading time for the teacher.
Fixed Mindset

A belief system that suggests that a person has a set amount of intelligence, skills or talent.

Growth Mindset

A belief system that suggests that one’s intelligence can be grown or developed with persistence, effort, and a focus on learning.

“Becoming is better than being.”
Fixed vs. Growth Mindset

Student Success is a Matter of Mind-Set

Students with a fixed mind-set... VS Students with a growth mind-set...

- believe that their intelligence and abilities are fixed and that personal effort has little impact
- feel pressured to “look smart,” believing they’re defined by their natural abilities
- avoid challenging material to protect their self-esteem
- give up in the face of setbacks, attributing difficulty to a lack of ability
- ignore or avoid constructive criticism, seeing it as an attack on their natural abilities
- feel diminished by others’ success, believing that success is unattainable without natural ability

- believe that their intelligence and abilities can grow through personal effort
- feel motivated to “get smart,” knowing that effort maximizes abilities
- welcome challenging material, improving their self-esteem and abilities in the process
- persist in the face of setbacks, believing they can prevail with sufficient effort
- embrace criticism as a learning tool, a means of improving
- feel inspired by others’ success, knowing that success is attainable through effort

Why Mindset Matters

<table>
<thead>
<tr>
<th>Grade</th>
<th>Fixed Mindset</th>
<th>Growth Mindset</th>
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</thead>
<tbody>
<tr>
<td>K</td>
<td>n/a</td>
<td>100%</td>
</tr>
<tr>
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<td>2</td>
<td>18%</td>
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<td>3</td>
<td>42%</td>
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Growth vs. Fixed mindset Praise and Feedback

Feedback that fosters a growth mindset:

“You are working hard to understand this. Great job.”

Praise the process and the effort.

Feedback that fosters a Fixed mindset:

“You made that look easy.”

“You’re so smart.”

Praise of the outcome or the product instead of the effort it took to get there.

“Students who are praised for their intelligence, learn to value performance while students who are praised for their effort and hard work value opportunities to learn.”

Sousa, David (2009) How the gifted Brain Learns. p.34
30 Second Task

Brainstorm process-praise statements that you could use with your students or peers.
Science Class - Engineering Projects

What does growth mindset look like in Science Class?

Engineering Projects

- Rockets
- Mousetrap Car

Student Work Examples

- Student 1
- Student 2

Where do you see evidence of growth mindset on this project?
2 Parts to Metacognition

- Metacognitive Knowledge
  - Reflection and awareness of one’s own thinking

- Metacognitive Regulation
  - The ability to manage one’s own thinking process and how we go about learning
Metacognitive Knowledge

- Awareness of knowledge
  - What one knows
  - What one does not know
  - What one wants to know
  - Awareness of others’ knowledge

- Awareness of thinking
  - Understanding tasks and the nature of what is involved in the task

- Awareness of thinking strategies
  - Understanding approaches to directing learning
Metacognition Strategies

- Help students become more efficient and effective in their learning
- Help students evaluate when they need additional resources
- Help students understand when to apply various approaches to problem
Metacognition is…

A skill that has to be taught to students
Think of a time when you asked your students to assess their own learning and reflect on their work.

- How did you structure this activity?
- What difficulties and challenges did you face trying to make this happen in your classroom?
- Was the experience successful?
  - How do you know?
Where does feedback fit in?

- In order to accurately self-assess their knowledge, students need a variety of feedback.
- The feedback needs to be
  - Timely
  - Accurate
  - Relevant
  - Growth Mindset Oriented
Feedback Activity: Part 1

- What are the different ways that your students receive feedback in your classroom?

- Include, all feedback sources, not just feedback they receive from you.
Feedback Activity: Part 2

- Get in groups of 4.
- Discuss the different forms of feedback that occur in your classroom.
- Make a group list of your answers.
- Give each feedback a score from 1-4.
  - 1 = Does not involve student metacognition
  - 4 = Very high level of student metacognition.
My Realization

- If the vast majority of the feedback my students are getting is from me, than I am working TOO hard and they are not working hard enough
- I am taking away their opportunity to reflect, question each other and learn metacognitive strategies
- I am not giving students enough opportunity to take responsibility for their learning
Attitude Shift in the Classroom

- It is not only the teacher’s job, but also the student’s responsibility to assess and direct their own learning.
My action steps to improve metacognition.

- Be transparent with learning objectives
- Reframe feedback through a growth lens
- Provide more opportunities for students to reflect on their growth
- Provide more opportunities for students to give feedback to and receive feedback from one another
- Provide opportunities for students to receive feedback from outside sources
Weekly Learning Reflection

Weekly Learning Reflection Sheet

Pros:
- Students reflect on learning.
- Students create action steps.
- It gives me a clear picture on what students understand and what we still need to work on.

Cons:
- Takes class time for training.
- Some students are resistant.
ELR Sheet

- Helps students track their learning
- Is visual
- Has a reflection section for students to
  - Plan next steps
  - Determine if strategies are working or if they need new ones
  - Determine if office hours or tutoring are needed

Example from Math Class
Assessment Reflection Sheets

**Purpose:** Provides an opportunity for students reflect on assessment, identify work put into preparation for assessment and create an action plan for relearning material.

Benefits
- Feedback to students and parents/guardians
- Reflection of assessment
- Sneak in data analysis, focus on different ways to interpret data.
- Sets and helps enforce clear reassessment expectations for students and parents.

Example from Pre-Algebra Class. **Soft Copy**
Adult Teach

What is it?

What it looks like in my classroom.
  Sample Adult Teach Page

Tips for an effective page.
  Format of page

less is more
Pear Deck

An interactive slideshow program.

Pros

- Basic Peardeck is free. The upgrade is really cool.
- Interactive
- Downloadable data
- Provides the opportunity to gather data and provide feedback to students.

www.peardeck.com/join
Google Forms with Flubaroo

Google Form: Sample

Google Sheets Add-On
1. Open Google Sheets
2. Click on Add-On Tab
3. Click on “Get Add-On”
4. Add Flubaroo

To incorporate it into your lesson:
1. Create Google Form
2. Complete the form
3. Open Form Responses

What it does…

It grades google form responses and emails responses to students.

Instant feedback + No teacher grading.
Kagan Structure - Rally Coach

Student to Student Feedback

Pros:
- Great for verbal processing.
- Students have specific roles.
- Low risk formative work.

How I use this in my classroom.

Example of Rally Coach Form
Kagan Structure - Commonalities

Student to Student Feedback

Pros

Student to student discussion

Students rely on their peers as resources

Fosters debate and higher level thinking when students have to explain their reasoning

Sample
Closure - TOD

CPD Closure Reflection Activity

Thank you for your time and participation!