Increasing the Impact of Quality Instructional Actions—Through a Focus on Surface, Deep, and Transfer Learning

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Building Academic Success
LINKING TEACHER CLARITY, ASSESSMENT & FEEDBACK

How effectively we teach depends, first, on what we think teaching is. Three levels of thinking about teaching are distinguished. The first two are 'blame' models, the first blaming the learner, the second the teacher. The third model integrates learning and teaching, seeing effective teaching as encouraging students to use the learning activities most likely to achieve the outcomes intended. To do this requires some knowledge of how students learn. Students may use learning activities that are of lower cognitive level than are needed to achieve the outcomes, resulting in a surface approach to learning; or they can use high level activities appropriate to achieving the intended outcomes, resulting in a deep approach to learning. Good teaching is that which supports the appropriate learning activities and discourages inappropriate ones.

All teachers have some theory of what teaching is, even if they are not explicitly aware of that theory. Teachers' theories deeply affect the kind of learning environment they create in their classrooms (Trigwell and Prosser 1991; Gow and Kember 1993).

What are your beliefs about teaching and learning?

Learning is_____

_____

_____

_____

_____

Teaching is_____

_____

_____

_____

_____

PART 1 - TEACHER CLARITY

True or False?

1. There are two parts in targeted learning (teacher clarity): the first is being clear about what is to be learned from the lesson(s) (the learning intention); the second is having a way of knowing that the desired learning has been achieved (the success criteria). _____.

2. Teacher clarity involves the teacher knowing where he or she is going with the lesson and ensuring that the students know where they are going. _____.

3. Teachers need to know how to use teacher clarity to keep all students learning at the same pace. _____.

4. Greater trust between students and teachers occurs as a result of teacher clarity. _____

5. Teacher clarity means knowing if and when the students complete the activities. _____.

6. A key issue is that students should not be explicitly taught the learning intentions and success criteria. _____.

7. Teachers can assess the effectiveness of their clarity through students completing the activity or a lesson having been engaging and enjoyable. _____.

8. The major role of teacher clarity is to get the students engaged in and enjoying the challenge of learning. _____.

9. Unless teachers are clear about what they want students to learn (and what the outcome of this learning looks like), they are hardly likely to develop good assessment of that learning._____.

10. The goals (that is, the learning intentions) of any lesson should not be a combination of surface, deep, or transfer learning. _____.

Involving Students with Teacher Clarity

Developing a clear understanding of the standards students need to master and creating learning intentions and success criteria for those standards are critical *first* steps in establishing teacher clarity. In order to maximize the impact of teacher clarity on student learning, teachers need to ensure students understand and can apply the learning intentions and success criteria to monitor and assess their learning. Instructional planning needs to include consideration of strategies that can be used to support student understanding and application of LI and SC.

Example

Learning Intention: Today we are learning how to compare fractions.

Success Criteria:
- I can draw models to make fraction comparisons
- I can use symbols to compare fractions
- I can explain how the size of equal parts can be used to compare fractions
- I can create an argument using evidence to support me thinking

Teacher thought…"*This is probably going to be one of the most difficult units the students have been exposed to thus far in the school year, as it contains an introduction to multiple new concepts and ideas - much more than what has been present in prior units. On the flip side, there are a number of concepts and ideas that should be familiar to students from prior units as well. This unit begins to connect some of the isolated concepts students learned earlier in the school year. I want to make sure that students understand two things - 1. This is going to be a hard unit, so let's make sure we're ready to persevere in problem solving, and 2. They bring a strong amount of background knowledge to the table that they will be able to use to support mastery of new material.*"

Strategy #1 - Activating Student Background Knowledge

Strategy #2 - Co-Constructing Success Criteria

Co-Constructing Success Criteria

Date: _____

Today's Learning Intention is

Success Criteria

How will you prove that you mastered the learning intention? What evidence will you show? Come up with THREE to FIVE success criterion:

1

2

3

4

5

Strategy #3 - Student Progress Monitoring

Self-Assessing Your Progress Using Success Criteria

Date: _____

Directions: Capture the success criteria for the learning intention provided by your teacher in the boxes below. Prior to the end of the lesson, self-assess your progress by determining your performance level for each success criterion below.

	I'm a pro and can teach others.	I'm able to do this on my own.	I'm still practicing but almost there.	I need more help.
SUCCESS CRITERIA 1:				
Evidence to support current performance level:				
My next learning steps:				
SUCCESS CRITERIA 2:				

Creating Assessment-Capable Visible Learners Self-Assessment

1 - This is commonplace and systematically embedded in my classroom or practice.

2 - This exists in pockets, but couldn't be considered commonplace, yet.

3 - This is not yet established in my classroom or practice.

Statement	Rating
Learning intentions are accessible to students in my classroom (i.e., posted, included on learning task, etc.).	
Success criteria are accessible to students in my classroom (i.e, posted, rubrics, scoring guides, progress monitoring sheets, etc.)	
I collaboratively design learning intentions and success criteria with my PLC.	
I communicate the learning intentions to my students so they always know what they are learning.	
I communicate the success criteria to my students so they are clear on what success looks like.	
I employ strategies in my classroom to support students in understanding and applying the learning intention and success criteria.	
I use exemplars in my classroom of to show what success looks like.	
Students self-assess their progress using the learning intentions and success criteria.	
I design or select learning tasks to elicit evidence of student learning focused on the success criteria established.	
I communicate to students how their learning tasks connect to the learning intention and success criteria.	
I explicitly teach students different strategies to use during the learning process (i.e., summarizing, number lines, graphic organizers, etc.)	
I make adjustments to my lessons based on the evidence I elicit from my students.	
I use evidence of student learning as feedback on my impact.	
I use evidence of student learning to make instructional inferences and plan next steps.	
I teach students how errors are opportunities to help them learn,	

Look at the strategies below and determine what phase or phases of learning the strategy best supports. Capture your responses in the table below.

Strategy	Surface, Deep and/or Transfer?
Summarizing	
Class Discussion	
Feedback	
Vocabulary Instruction	
Problem Solving Teaching	
Reciprocal Teaching	
Teacher Clarity	
Cooperative Learning	

STOP & REFLECT: How do you currently select strategies to use in the classroom with students? What drives the decision-making process?

ENSURING A SHARED LANGUAGE OF LEARNING JIGSAW

STRATEGY	STRATEGY DEFINED	1 Word 1 Phrase
#1 Summarizing	Summarization involves students writing summaries of texts they are reading with the aim of capturing the main points and excluding unimportant or repetitive material. The generality and accuracy of the summary are important moderators, and it is not clear whether it is better to summarize smaller pieces of a text (more frequent summarization) or to capture more of the text in a larger summary (less frequent summarization). Younger and less able students are not as good at summarization. The research suggests summarizing is more effective when the subsequent assessments of learning are performance or generative and not closed or multiple-choice tests.	
#2 Class Discussion	The research suggests that when students are involved in classroom discussion, their level of comprehension improves. But not all discussions are created equal. A number of discussion strategies were included in the research (collaboration reasoning, questioning the author) and some were identified as being more effective than others. A classroom discussion is effective if it enables students to build and check their knowledge and if it allows the teachers to see what the students know and understand. A simple rule of thumb, however, is that as teacher talk decreases, student talk increases and this can be beneficial for learning. It's about dialogue not monologue. The obvious question to consider is who does most of the talking in your classroom and could you develop more opportunities for effective classroom discussion where students can build their own knowledge and teachers can check understanding.	

#3 Feedback	Feedback is about providing information about task performance to the learner/teacher. Feedback research is extensive and varied which makes interpreting the findings complex. Effect sizes from these many studies show considerable variability, meaning some forms of feedback are more powerful than others. Feedback can be very powerful, especially when it is from the student to the teacher. If the teacher is open to feedback regarding what students know and understand, where they make errors, when they have misconceptions, and when they are disengaged, then they can respond accordingly, and this can have a large positive impact on student achievement gains. The least effective types of feedback are programmed instruction, praise, punishment, and extrinsic rewards. Feedback is more effective when it provides information on correct rather than incorrect responses and when it builds on changes from previous tries, so students can make connections to prior attempts and efforts. It is also more impactful if the type of feedback is correctly aligned to the phase of learning a student is in.	
#4 Vocabulary Instruction	Vocabulary instruction explicitly focus on improving students' knowledge and understanding of words and vocabulary. Students who have experienced vocabulary instruction had major improvements in reading comprehension and overall reading skills. Most effective vocabulary instruction includes providing both definitional and contextual information, involves students in deeper processing, and gives students more than 1 or 2 exposures to the word to be learned.	
#5 Problem Solving Teaching	Problem-solving teaching involves defining or determining the cause of the problem - identifying, prioritizing and selecting alternatives for a solution; and/or using multiple perspectives to uncover the issues related to a particular problem, design an intervention plan, and then evaluating the outcome. Studies here range from problem solving teaching in math and science and reading through to problem-solving around conflicts between groups/individuals and approaches to solve these problems.	

PART 2 - ASSESSMENT

Once clarity has been established in the classroom, important consideration needs to be given to the role of assessment. Part of establishing clarity is so that the teacher and the student are both clear on the evidence needed to show mastery. There should be a hand to glove fit between the success criteria and the learning tasks that students will engage in.

In order to partner the right learning task with the appropriate evidence needed, there needs to be an exploration of surface, deep and transfer learning.

- ★ What type of knowledge will students need to acquire?
- ★ When and where is there an application of the knowledge acquired?
- ★ Where do opportunities exist for application of learning in new and novel situations?

Surface - "Surface learning does not mean superficial learning. Rather, surface learning is a time when students initially are exposed to concepts, skills, and strategies. Surface learning is critical because it provides a foundation on which to build as students are asked to think more deeply." - Hattie, Fisher and Frey (*Visible Learning for Mathematics*, 2017)

Deep - "We define deep learning as a period when students consolidate their understanding and apply and extend some surface learning knowledge to support deeper conceptual understanding . . . We think of this as a 'sweet spot' that will often take up more instructional time, but can be accomplished only when students have the requisite knowledge to go deeper." - Hattie, Fisher and Frey (*Visible Learning for Mathematics*, 2017)

Transfer - "Transfer learning [is] the point at which students take their consolidated knowledge and skills and apply what they know to new scenarios and different contexts. It is also a time when students are able to think metacognitively, reflecting on their own learning and understanding." - Hattie, Fisher and Frey (*Visible Learning for Mathematics*, 2017)

BIGGEST TAKEAWAY:

⇨ **YOUR TASK:** Go back and look at the learning intentions and success criteria you created earlier and code them as being surface, deep, or transfer learning. This will help you in designing an instructional sequence that makes sure students have the surface level knowledge needed to engage in deeper learning experiences.

EXAMPLE

Learning Intention: Today we are learning how to use context clues to determine the meaning of an unknown word in a text.

Success Criteria:
- Determine different context clue strategies - SURFACE
- Identify unknown words in what you are reading - SURFACE
- Recognize context clues present that support determining word meaning for unknown words - DEEP
- Explain how the context clues present support determining word meaning of each of the words - DEEP
- Determine the meaning of the unknown words - DEEP

Teacher thought…*"This isn't the first time students will have been exposed to learning about context clues. The skill is present in multiple grade level ELA standards. The change that needs to be present is in the complexity level of the text students are interacting with Surface level learning may entail a review or reteaching of the different strategies that students can use to determine the meaning of an unknown word. The deeper learning I would like to engage students in is through applying their knowledge of context clues to determine the meaning of an unknown word in a complex text and connecting the meanings of different unknown words to deepen understanding of a complex text."*

Strategy #1 - Modeling with a Think Aloud

Strategy #2 - Close Reading *(Close Reading is a strategy that can be used to understand challenging text (Boyles, 2012/2013; Fisher & Frey, 2013; Frey & Fisher, 2013; Hinchman & Moore, 2013). Close Reading comprehension involves the reader developing a deeper understanding of text, not a quick read for the gist of the passage (Shanahan, 2012).*

Take a moment to review the learning intentions and success criteria you have created and the surface, deep and transfer coding you applied. What are strategies you will use to elicit the *specific* evidence needed to show mastery of the success criteria?

See the example below using one of the strategies identified to support the learning intention and success criteria captured above..

Strategy #1 - Modeling with a Think Aloud

Teacher Thought...*I'm going to model a think aloud for my students using the following sentences below.*

1. Unlike the **apoplectic** parent shouting **imprecations** at the administrator, Mr. Wallaby stood still, enjoying the unexpected entertainment.

Teacher Thought...*These are the things I want to model and "think about" as I look at the sentence and take it apart to try and make meaning of the unknown words.* 1a. The sentence refers to Mr. Wallaby as an administrator. What does that mean his job is?
     1b. Who is an administrator at our school?
     1c. The sentence refers to a "parent shouting." Why might a parent shout at an administrator?
     1d. What emotions would a parent be feeling if they were shouting at an administrator?
     1e. What kinds of things might a parent be shouting at an administrator if they were feeling the emotions I identified?
     1f. What is Mr. Wallaby's reaction to the unexpected entertainment?
     1g. The word "unlike" at the beginning of the sentence is a clue that differences are being identified. What is the event referred to in the sentence that has the opposite effect of "enjoying the unexpected entertainment?"

     Keeping all of my clues in mind I think the word apoplectic means really angry.

     Keeping all of my clues in mind I think the word imprecations means things that are mean or harmful (actual definition is curse).

10 Formative Assessment Strategies to Elicit Evidence of Student Learning

Strategy	Definition	Notes/Ideas for my classroom
#1 Anticipation guide	A strategy that is used before reading to activate students' prior knowledge and build curiosity about a new topic. E.g., Before reading a selection, students respond to several statements that challenge or support their preconceived ideas about key concepts in the text.	
#2 Concept mapping	Concept maps are graphical tools for organizing and representing knowledge. They include concepts, usually enclosed in circles or boxes of some type, and relationships between concepts indicated by a connecting line linking two concepts. Words on the line, referred to as linking words or linking phrases, specify the relationship between the two concepts.	
#3 Picture Connection	Students are given a topic or idea to think about and then are asked to select from a wide range of pictures the one they feel connects most with the topic or idea at hand. Students can write about their connection, talk with a peer or a group of peers, or engage in classroom discussion.	
#4 Reciprocal Teaching	A strategy that teaches students to learn by summarizing, questioning, clarifying, and predicting as they discuss and interact with text with the aim of improving understanding of what they are reading and to learn to monitor their own learning and thinking.	
#5 True or False - Prove it!	Students are shown different answers or solutions and asked a focused question about something that is true or false. Students are asked to justify their answers. For example, Which of the following statements is true? Which of the following statements is false.	
#6 Exit Ticket	This is completed by students at the end of a lesson or class. It can serve a number of purposes: provide feedback to the teacher	

	about the class; require the student to do some synthesis of the day's content; challenge the student with a question requiring some application of what was learned in the lesson.	
#7 Table Top Discussions	Students are posed with hypothetical scenarios that are designed to expose learners to problems and issues that might emerge in a variety of situations and invited to think about how they may be solved.	
#8 Student Self Evaluations	Students are given a template to list the success criteria for the lesson. At the end of the lesson, students self-assess their learning providing "proof" or evidence for why they rated themselves where they did as well as identify their next learning steps.	
#9 Feedback Question Cards	Students are prompted to utilize a variety of tools and resources to formulate a focused question seeking feedback on an specific area they need support with.	
#10 Co-Constructing Success Criteria with Students	Students are given the learning intention for the lesson and then invited to consider what the success criteria would be. This can be done by taking them through a task, and asking "What did I just do?"	

MAKE IT HAPPEN IN YOUR CLASSROOM! Pick one strategy that you will use in your classroom in the next upcoming two weeks.

Strategy:
Standard and/or skill and concept to focus on:
Potential misconceptions to assess for:
Brief summary of how strategy will be used:
How will you analyze and respond to the evidence you elicit?