### UNLOCKING Learning Intentions Shifting From Product to Process Across the Disciplines

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## Learning, Not Doing The Evidence

# 2

#### Clarity

Students are often asked by parents, "What did you do today?" A better question is "What did you learn today?" For decades students had been given tasks or activities with no clear understanding of what they were learning other than broad themes (e.g., We did painting/We did some writing/We did the Civil War), so the concept of learning, although assumed, did not appear to be made explicit. So why does it matter? Not knowing affects how you approach the task and whether you can meet the expectations of both the task and the teacher. Imagine you are asked to paint a seascape/compose a short melody/write a letter with no learning intention given. You will have many questions about this task in order to obtain the most favorable assessment from the teacher:

Does the weather in the picture matter? Can I have other things in the picture like boats, people, or hills? What are you looking for?

Can I use any instruments? What do you mean by short? Does it matter if it is atonal? Can it be any style? What is its purpose? How will it be assessed?

Can the letter be to anyone? What should the letter be about? Does it matter if it is friendly and chatty, or should it be polite and serious? How will I know if I've got it right?

#### PART I: SETTING THE SCENE

These questions usually manifest themselves in the classroom by students either (a) asking you what they have to do, even though the activity has been explained or (b) taking a lead from the person nearest them who is the best bet for getting things right and copying their approach.

Now imagine the difference if students are given the following learning intentions:

- We are learning to create watercolor washes. Context: a sky, sea, and land seascape
- We are learning to compose an eight-bar piano melody in baroque style. Context: any keyboard instrument
- We are learning to write a formal letter. Context: a letter of complaint after food poisoning in a restaurant

The clarity of the learning intention answers the students' questions. Not only does it clarify purpose for the students but it makes planning the lesson more focused for the teacher. Here is a possible walk through my lesson planning for the first learning intention: We are learning to create color washes.

I could do the following:

- 1. Demonstrate creating watercolor washes, co-construct the success criteria for this skill with students as I demonstrate, and write up the different steps.
- 2. Have the students practice the skill before moving on.
- 3. Have the class look at pictures of seascapes.
- 4. Present an excellent example of washes and a poor example—both from last year's class—and have students compare the two, analyzing what makes the difference between them.
- 5. Ask students to paint their own by using the success criteria they co-constructed and the knowledge they have gained.
- 6. Be on the move as students work, looking for instruction points, maybe adding to the success criteria, and encouraging students to share any insights.

One example of the impact of the lack of a learning intention is a clear memory I have of my middle school science homework one day. We were asked to repeatedly place our hands in hot then cold water at home and write up what happened. I did this faithfully and noticed that my hands were changing color: to red then white then mottled. I duly noted the different changes of color and received a curt comment at the foot of my writing when it was returned to me: "But what did you notice about your ability to feel the change in temperature?" I remember thinking, "Why didn't you tell us it was about temperature?" Of course, I assumed it was my fault for not being able to understand what the teacher wanted: students will always assume that any problems in their learning are their own fault.

Teachers often worry that science learning intentions will "give the game away" (telling the students the answer to something we want them to discover on their own during the lesson), but this doesn't have to be the case. Rather than state "We are learning that . . ." the wording can be "We are finding out what happens when. . . ." Making this small shift ensures the purpose is clear, but the investigation is still intact. The learning intention for my homework that day should have stated, "We are finding out how reliable the human nervous system is in detecting variation in temperature."

#### **Knowing How to Get There**

In the UK, back in 1990, when the England and Wales National Curriculum (which noted what to teach, but now how) was first introduced, teachers all started with *product* success criteria. My Gillingham study of 1991, involving 560 elementary school students and their teachers, revealed that teachers who instinctively gave students *process* success criteria saw greater learning gains. Of course, students need to know the expected final outcome, but process success criteria show students how to get there.

LEARNING INTENTION	PRODUCT SUCCESS CRITERIA (OUTCOME EXPECTATION)	PROCESS SUCCESS CRITERIA (ENABLES THE LEARNING)
To be able to use papier-mâché	You will have made a solid bowl of papier-mâché.	Remember to:
		<ul> <li>Tear up newspaper into small strips.</li> </ul>
		<ul> <li>Create the required shape out of chicken wire, or use a balloon.</li> </ul>
		• Mix wallpaper paste.
		And so on

#### **EXAMPLE 2.1: Product vs. Process Success Criteria From the Gillingham Project**

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LEARNING INTENTION	PRODUCT SUCCESS CRITERIA (OUTCOME EXPECTATION)	PROCESS SUCCESS CRITERIA (ENABLES THE LEARNING)
To write an effective characterization	Someone who reads it will feel they really know the person.	Choose to include:
		<ul> <li>Their hobbies and interests</li> </ul>
		Their likes and dislikes
		• Extrovert or introvert?
		<ul> <li>Examples of their personality (key point)</li> </ul>
		<ul> <li>Their appearance if it shows something about their character</li> </ul>
		• Their attitude to others
		• A back story to illustrate their character
To identify odd and even numbers	Your answers will be mostly correct, showing you understand the difference between odd and even numbers.	Remember to:
		<ul> <li>Look at the last digit in the number to check the pattern.</li> </ul>
		<ul> <li>Divide the number by two to check (even divides equally, odd has one left over).</li> </ul>

Process success criteria are a breakdown of the learning intention, giving either the compulsory process steps needed or the possible ingredients for students to choose from. Without success criteria, how are students to know which elements they should include or emphasize? How will they know how their work will be judged? How will the teacher know all the elements that need to be taught or for students to have feedback about?

Once the learner has process success criteria, they have a framework for a formative dialogue, with peers or adults, which enable them to do the following:

- Know what the learning intention means.
- Know the *compulsory steps* involved with a closed learning intention (e.g., to find percentages of whole numbers) or the elements of a particular writing form (e.g., a newspaper report).
- Know the *possible ingredients* for an open learning objective (e.g., a ghost story opening).

- Identify where success has been achieved and where help might be needed.
- Be clearer about where improvements can be made.
- Have a basis for peer discussions.
- Discuss strategies for improvement and self-regulation.
- Reflect on progress.

#### The Evidence for Learning Intentions and Success Criteria

#### **Visible Learning Findings**

In Hattie's groundbreaking synthesis of meta-analyses (www.visible learningmetax.com), sharing *learning intentions* has an effect size of 0.51 and is categorized as having the "potential to accelerate student achievement." Sharing *success criteria* has an effect size of 0.88 and is categorized as having the "potential to considerably accelerate student achievement."

#### **Formative Assessment**

Learning intentions and success criteria are key elements of formative assessment (see Figure 2.1): a conceptual framework of instruction and learning strategies, which, when combined, give students maximum opportunity to achieve beyond their potential.



Formative Assessment: The Key Elements



#### PART I: SETTING THE SCENE

Formative assessment in action includes the following:

- The learning intention is the starting point for the teacher's or teacher and students' *planning*, although the starting point of a *lesson* is often to plan a five-minute prior-knowledge question for the class to discuss in their pairs (see examples on page 46) while the teacher eavesdrops, then deciding whether the plan for the lesson needs any on-the-spot rethinking.
- The learning intention is broken down into mini goals or ingredients, commonly known as *success criteria*, most effective when co-constructed with students.
- Using published or old anonymous examples of excellent and "not so good" student work for class analysis allows the concept of *quality* to be known for the focus learning intention.
- Talk partners; good questioning; and on-the-spot self, peer, and teacher feedback, often via "mid-lesson learning stops" enable *improvements to be made* during the learning.

#### **Mastery and Performance Goals**

All schools use mastery goals and performance goals. Performance goals are focused on how the learner is *performing (getting an A grade)*, whereas mastery goals focus on what the learner is *learning (how to solve simple equations)*. By students knowing learning intentions and having constructive feedback that relates to that learning intention (Ames & Ames, 1984; Butler, 1988; Crooks, 1988; Deevers, 2006; Hillocks, 1986), they are more likely to achieve both the mastery and performance goals, as mastery and effective feedback can be seen as the route to high performance.

If schools overfocus on performance goals, students often become demoralized and avoid difficult tasks, believing that their ability is lacking. If the focus is mainly on mastery goals, however, students are less likely to switch off from learning (Rolland, 2012).

Carol Dweck's (1989) work on motivation summarizes what happens if you get students to focus only on competitive structures such as grades (*performance orientation*) rather than on *what they have learned* and what they need to do to improve (*learning orientation*; see Figure 2.2):

FIGURE 2.2 Performance Orientation vs. Learning Orientation		
PERFORMANCE ORIENTATION (I want the best grade/merit mark/to be first.)	LEARNING ORIENTATION (I want to work hard/I want to learn and know how to improve.)	
Belief that ability leads to success	Belief that effort, practice, and input leads to success	
Concern to be judged as able and to perform	Belief in one's ability to improve and learn	
Satisfaction from doing better than others or succeeding with little effort	Preference for challenging tasks	
Emphasis on interpersonal competition and public evaluation	Derives satisfaction from personal success at difficult tasks	
Helplessness: evaluates self negatively when task is difficult	Applies problem solving and self-instructions when engaged in tasks	

#### The Process of Learning

Hattie and Timperley (2007) describe the process of learning and feedback as three elements:

Where am I going? (Knowing the learning intention)

How am I going? (How am I doing so far? Helped by the success criteria)

Where to next? (How could I improve?)

Black and Wiliam (2009) have three similar elements:

Where the learner is going (knowing the learning intention)

Where the learner is right now (How am I doing so far?)

How to get there (success criteria and knowing what excellence looks like)

Both models draw on the "closing the gap" theory made famous by Sadler (1989) drawing on the work of Ramaprasad (1983). The learner has to do the following:

"Possess a concept of the standard (or goal or reference level) being • aimed for.

- Compare the actual (or current) level of performance with the standard.
- Engage in appropriate action which leads to some closure of the gap" (Sadler, 1998).

#### Student Ownership of the Learning Intention

Sadler doesn't say "know the goal" but instead says "possess a concept of the standard (or goal . . .)." This is achieved by not only knowing the learning intention but also understanding how it breaks down into criteria that help the learner achieve the goal. Co-constructing success criteria by analysis of excellent examples or comparing good and poor examples makes the concept of the goal even clearer. Once students know the goal, the success criteria, and what excellence does and does not look like, they are in full possession of the goal. Without all of these, it would be like being given instructions to make a chocolate cake with no recipe, instructions, or picture of how it should look, or it would be like trying to build a table with no clear goal (size, material, style?), criteria for success, or a chance to look at good and poor examples and what makes the difference.

In order to judge the quality of a student's achievement, the teacher must have a clear understanding of what the learning intention means, what quality for that learning intention would look like and be able to compare a student's performance to that concept. It is not enough for the teacher to hold this idea of what success looks like, however, as the feedback would only be one way, limiting the student's ability to develop independently. *The student* must also understand the learning intention and the definition of quality held by the teacher so that he or she can monitor their progress during its production—the ability to self-regulate, a characteristic of deep learning.

Success criteria are a breakdown of the learning intention, most helpful when they focus on the process and give the rules or tools that enable the student to achieve the learning intention. Wiliam and Leahy (2015) state the following:

Process success criteria can be particularly helpful to students if they break the process that students are expected to follow into a number of smaller, more easily managed steps. We need to remember, of course, that not all success criteria are steps, as they are sometimes ingredients, not necessarily in chronological order, and can be optional suggestions rather than compulsory elements. More of this later!

The success criteria give a basis for student self-regulation and feedback and demystify the steps or ingredients needed to achieve success. They differ for skills and knowledge and often between subjects hence, the many examples throughout this book.

Simply *giving* students success criteria is not as powerful as *co-construction*. Effective strategies for co-construction nearly always involve analyzing good examples or comparing good and poor and identifying what makes one better. This makes the process rich in not only helping students to internalize the success criteria but also to see what excellence does and does not look like.

#### Transfer to Long-Term Memory

In order to have any chance of transferring new learning to long-term memory, we know, through cognitive science research, that "memory is the residue of thought" (Willingham, 2009). It follows, therefore, that students need to be focusing their learning and thinking on the learning intention and success criteria—what we want them to learn and how to get there. Without this clarity, they could easily be preoccupied with other aspects of the task or what they believe to be important rather than what we want them to actually think about.

#### SUMMARY OF KEY POINTS

- 1. The emphasis should be on learning, not doing, with clear learning intentions.
- Process success criteria state the steps or ingredients during the process of learning, which will provide a structure for self- and teacher assessment. Product success criteria state the expected outcome.
- Learning intentions and success criteria have high effect sizes in meta analyses.



- 4. Learning intentions and success criteria are one part of the conceptual framework of formative assessment.
- 5. By focusing on learning intentions and success criteria, students are more focused on mastery goals than performance goals, which will ultimately improve their final grades.
- 6. Sadler's (1989) "closing the gap" conditions include knowing the goal but also possessing a concept of the goal, achieved by process success criteria and knowing what good ones look like.
- The cognitive science research on memory indicates that "memory is the residue of thought," so we need students to be thinking about learning intentions and success criteria as the main focus of their learning.