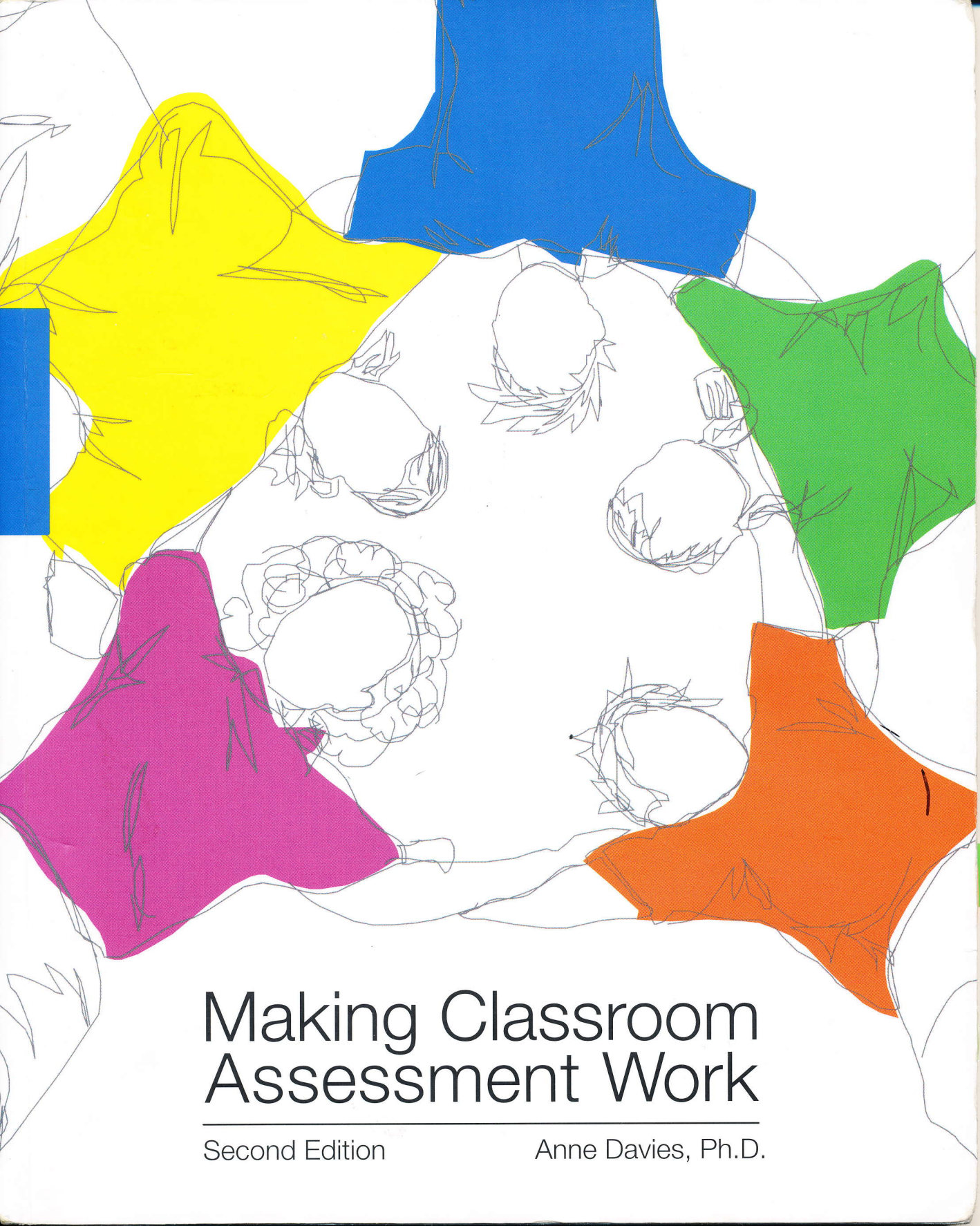


Making Classroom Assessment Work

Second Edition

Anne Davies, Ph.D.

Evidence of Learning

Chapter 5

Contents

Sources of Evidence

Observing the Learning

Collecting Products

Conversations About Learning

Creating a Plan

"Only if we expand and reformulate our view of what counts as human intellect will we be able to devise more appropriate ways of assessing it and more effective ways of educating it."

Howard Gardner

Once you have described what students need to learn and have developed a sense of what success might look like for your students, it is time to consider what kinds of evidence you will need to collect, in order to plan ongoing instruction and ensure validity and reliability. That way, when you evaluate at the end of the learning period, you and others can have confidence that you will be able to make high quality professional judgments and base your teaching on evidence of student learning needs.

Different teachers collect different kinds of evidence, even though the description of what their students need to learn may be the same. This is because the learning experiences that teachers design for different groups of learners may vary. Also, since students learn in different ways and at different times, collections of evidence may vary slightly in terms of how students choose to represent their learning. When making lists of the evidence to collect, teachers need to make sure they plan to gather evidence from a variety of sources, and that they gather evidence over time.

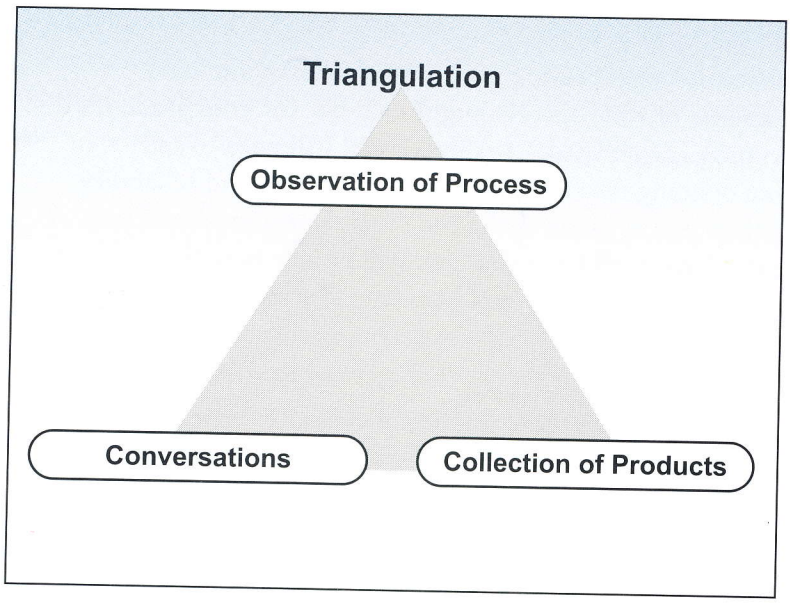
Sources of Evidence

There are three general sources of assessment evidence gathered in classrooms: *observations* of learning, *products* students create, and *conversations* – discussing learning with students (Primary Program

1990, 2000). When evidence is collected from three different sources over time, trends and patterns become apparent, and the reliability and validity of our classroom assessment is increased. This process is called *triangulation* (Lincoln and Guba 1984).

Reliability: think "repeatability" – reliability refers to students producing the same kind of result at different times.

Validity: think "valid" – the extent to which the evidence from multiple sources matches the quality levels expected in light of the standards or learning outcomes.

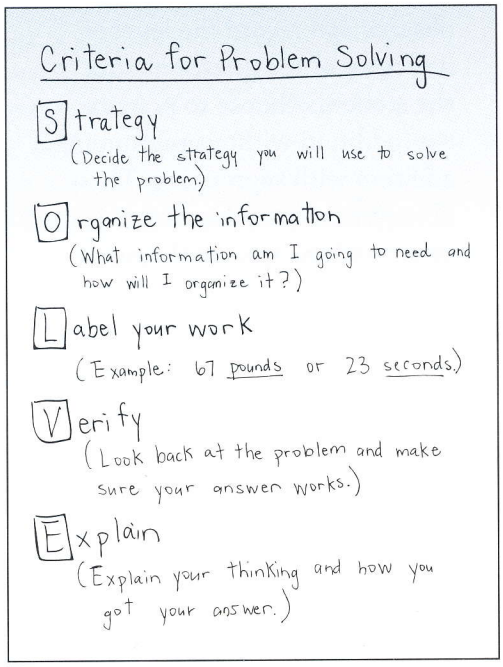


Observing the Learning

The list of evidence you plan to collect needs to include the observations you will make while students are learning. The record of observations becomes evidence.

You might observe . . . formal and informal presentations, drama presentations, scientific method being applied, music-related activities, reading aloud, group or partner activities, talking about one's own work, planning and designing a Web page, persuading, giving opinions, following instructions, listening to others, arguing, predicting, measuring objects, charades, dances, communicating ideas to others in a small group setting, conflict resolution, discussions, giving and receiving descriptive feedback, working with partners or in teams, identifying sounds, rhythm games, cartooning, playing instruments, jigsaws, demonstrations, any skills development, movement exercises, keyboarding, gestures, pantomimes, re-enactments, gymnastic routines, sign language, graphic design, simulations, debating, answering questions, presenting own work, giving instructions, singing, telling stories, verbalizing abstract reasoning, sculpture, choral readings, conversations, dialogues, dramatic readings, oral descriptions, oral reports, plays, puppet shows, Readers' Theatre, storytelling, demonstrating symbolic thinking, teaching a lesson, creating a slide show, role plays, verbal explanations, and verbal instructions. This list could include anything a teacher might observe students doing or might ask them to do.

Observations are essential if your classroom assessment and evaluation are to be reliable and valid. In addition to being necessary for triangulating your evidence, some learning can only be observed. For example, some students are better able to show what they know by doing it. These "in action" kinds of learners and younger children, who are able to record little in writing, need some of their learning assessed through observation. Also, products "under construction" can provide teachers with opportunities to observe students' learning. Without enough observational evidence, our evaluations at report card time risk being invalid.


Criteria for Problem Solving

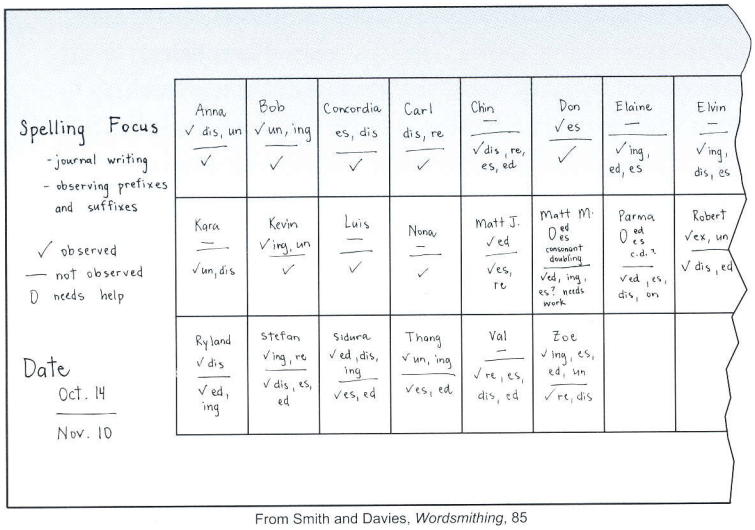
S trategy
(Decide the strategy you will use to solve the problem.)

O rganize the information
(What information am I going to need and how will I organize it?)

L abel your work
(Example: 67 pounds or 23 seconds.)

V erify
(Look back at the problem and make sure your answer works.)

E xplain
(Explain your thinking and how you got your answer.)



Spelling Focus
- journal writing
- observing prefixes and suffixes

✓ observed
— not observed
D needs help

Date
Oct. 14
Nov. 10

Anna ✓ dis, un — ✓	Bob ✓ un, ing — ✓	Concordia es, dis — ✓	Carl dis, re — ✓	Chin — — ✓ dis, re, es, ed	Don ✓ es — ✓	Elaine — — ✓ ing, ed, es	Elvin — — ✓ ing, dis, es
Kara — — ✓ un, dis	Kevin ✓ ing, un — ✓	Luis — — ✓	Nona — — ✓	Matt J. ✓ ed — ✓ es, re	Matt M: D ed D es consonant doubling — ✓ ed, ing, es? needs work	Parma D ed D es c.d.? — ✓ ed, es, dis, on	Robert ✓ ex, un — ✓ dis, ed
Ryland ✓ dis — ✓ ed, ing	Stefan ✓ ing, re — ✓ dis, es, ed	Sidura ✓ ed, dis, ing — ✓ es, ed	Thang ✓ un, ing — ✓ es, ed	Val — — ✓ re, es, dis, ed	Zoe ✓ ing, es, ed, un — ✓ re, dis		

From Smith and Davies, *Wordsmithing*, 85

Teachers have different ways of recording their observations. The key is that observations need to be focused to ensure that the information you are recording is related to the description of what students are to learn. It is usually not enough to observe that a student completed his math work. Rather, you would observe what skill was practiced, what level of skill the student was observed as demonstrating, and perhaps some possible next steps for instruction. For example, if students are practicing two-digit addition, you might choose to observe and record the level of difficulty of the questions that the students choose to practice: e.g., addition without regrouping, addition with regrouping. These observations may be used to form your teaching groups the next day, or to determine the subject of your math mini-lesson and the next day's practice activities. The same observations will later form part of the evidence that you will examine when you evaluate the students' progress in mathematics.

Math Problem Solving

Teacher _____ Grade _____

NAMES	/	/	/	/	/	/	/
RAHIM	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE
OSA	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE
ALEXI	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE
ISAAC	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE
JADE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE
TANIKA	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE
KAYLA	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE
HOLLY	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE
DAKOTA	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE	SOLVE

The focus of your observations depends on the purpose of the activity. If you can answer the following questions, then you are on your way to designing focused observations that will be useful in planning subsequent learning activities and will form a part of your evaluation later in the term.

- *What is the purpose of the learning activity? What are students to learn?*
- *What particular focus will I choose for this observation?*
- *How will I record and organize my observations so they are useful?*

Collecting Products

Teachers collect various kinds of evidence to show what students can do. These include projects, assignments, notebooks, and tests. As teachers become more knowledgeable about the implications of different theories of intelligence (Gardner 1984; Levine 1993; Sternberg 1996), they are expanding the ways students show or represent what they know. For example, when students are asked to represent what they know only in writing, some will be unable, due to their lack of skill as writers. However, when asked to demonstrate the process in action or to give an oral presentation, their knowledge and skill may rapidly become apparent.

More and more teachers are introducing an element of choice into the form that products may take. Some teachers create a list of ideas with their students. Over time, the list grows as students learn more about different ways of representing.

Different ways to show what we know...

- draw a diagram
- make a time line
- make a poster
- write a story
- do an oral presentation
- write a poem
- build a model
- design a Web page
- create a puzzle
- make a video
- create an iMovie
- make a podcast
- make a recording
- design a T-shirt
- do a report
- write a song
- create a collage
- build a diorama
- write a play
- do a journal entry
- perform a puppet show
- input e-journal entry

Conversations About Learning

We listen to learners during class meetings, at individual or group conferences, or when we read students' self-assessments about their work. We also have opportunities to listen when students assess their work in relation to criteria, analyze their work samples for their portfolios, or prepare to report to parents about their learning.

When we listen to students in these ways, we are inviting them to think about their learning. As they think and explain, we can gather evidence about what they know and understand. We can find out about what they did or created – such as, their best efforts, what was difficult or easy, what they might do differently next time, and what risks they take as learners. Students learn more when we take the time to involve them in self-assessment (Black and Wiliam 1998; Young 2000). The ability to articulate their learning processes – as part of a readers response, a mathematics response or in some other way – has become an increasingly important aspect of classroom and external assessment.

Conversations about learning involve listening to what students have to say about their learning, or reading what they record about their learning. The "conversation" may be face-to-face or in writing.

> *"I can't say enough about how impressed I am by how specific and articulate my students have become as a result of setting criteria, doing reflections and keeping learning goals portfolios."*
>
> *Holly Tomrose,*
> *High School English Teacher*

Creating a Plan

It takes some planning to make sure you have enough evidence, the right kind of evidence, and evidence that is reliable and valid. As teachers, we ensure reliability and validity by having proof of learning from multiple sources collected over time. We also plan to collect a range of evidence – both qualitative and quantitative data. We check the evidence we plan to collect by matching it to the curriculum standards for which we are responsible. We look at the learning destination and match it to the evidence asking: *Are there any gaps? Are there any overlaps? Am I collecting evidence from multiple sources?*

How much evidence is enough?

There is no one right answer to this question. The amount of ongoing evidence needed to effectively plan daily instruction varies from teacher to teacher, depending on the subject, the teacher, the students, and the community in which they learn. Each teacher needs to determine the amount of evidence that works in his or her situation, given what students are learning.

One guideline to keep in mind is that you must have enough evidence to be able to identify patterns and trends in student learning. To do this, you need student work (evidence) that accounts for the full range of what needs to be learned. The evidence needs to show learning over time.

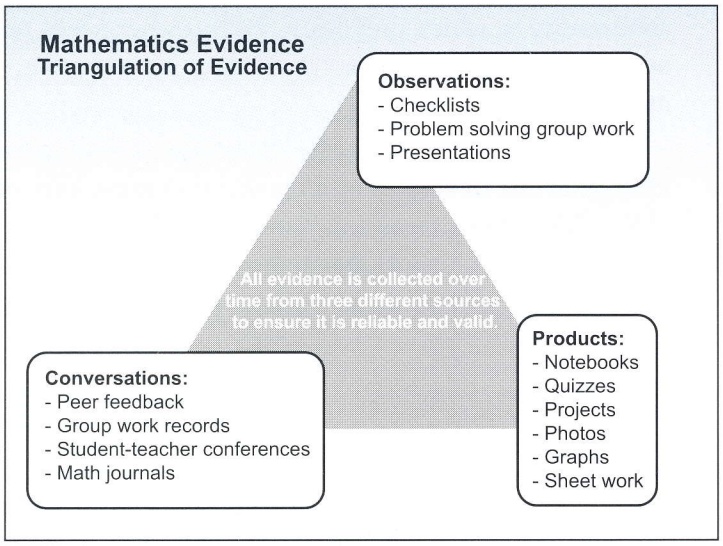
Taking care...

Be aware of the important difference between *large-scale assessment* and *classroom assessment*. The purpose of *large-scale assessments* is two-fold: to help the system be accountable *(Are we making the best use of our resources?)* and to identify trends *(Are students learning? What are they learning? How well?)*. To do this, large-scale assessments need only to collect a small amount of information from a large number of students. These assessments are designed to determine what students know, can do and can articulate in relation to what is to be learned. They do not collect enough information to give a valid and complete picture of everything students know and are able to do at any point in time, in relation to all the standards or learning outcomes they are to learn. Large-scale assessments can only provide a *snapshot* of *some* of the learning. They are better designed to describe what groups of students are able to do.

Classroom assessment is quite different. Teachers and students collect a large amount of evidence over time from multiple sources. It is designed to account for all that is to be learned by individuals – student by student. When done well, classroom assessment is better able to give a more valid and reliable accounting of a student's learning.

How do I know I have the right kinds of evidence?

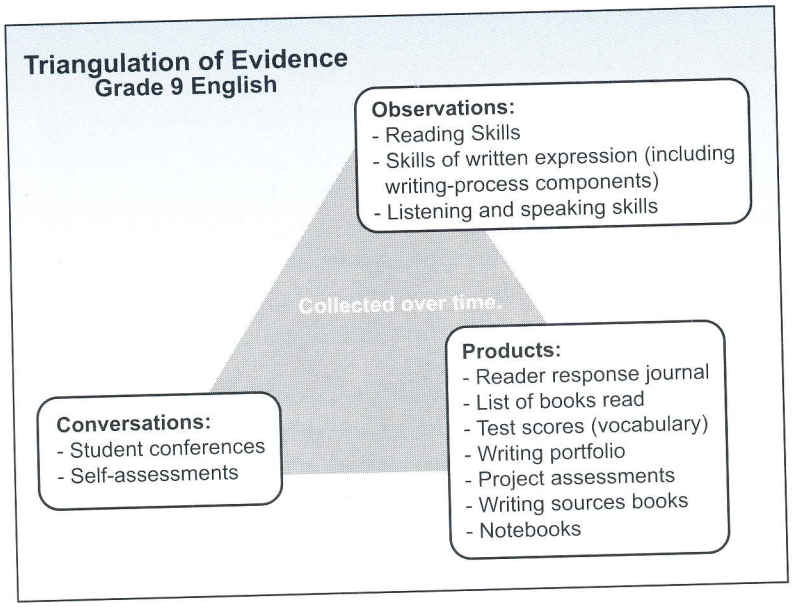
Evidence of learning may include observations, products, and conversations. The kinds of assessment evidence collected from students need to be appropriate to the type of learning. For example, paper-and-pencil is a great way to assess knowledge of basic facts, but would be unsuitable for assessing oral presentation skills. Sorting out what kinds of evidence you need to show different kinds of learning is a necessary step in planning what to collect. If your evidence is triangulated, then you are likely using a range of techniques to gather proof of learning over time. This is key to having the right kind and balance of evidence. Only you can determine whether or not it satisfactorily addresses the range of what needs to be learned. Your professional judgment will improve as you develop clear achievement criteria for reporting purposes (for example, see page 31).



How can I be sure my evidence will help my evaluations be reliable and valid?

If you have collected enough evidence and the right kind of evidence, and have thoughtfully worked with colleagues to improve your professional judgment, then you can feel confident that your evaluations will be reliable and valid. In general, confidence increases when there is a wide range of evidence, when it is collected over time and when there are clear criteria that define quality. Remember that everything students do, say, and create is potential evidence. Consider assessing more and evaluating less. We interrupt learning if we evaluate too often, whereas assessment information can guide instruction and support learning.

When you get ready to evaluate and report on how well students are doing in relation to what needs to be learned, you will first need to review the description of learning, check that you have the right kinds of evidence, and use these *observations, products,* and *conversations* to answer the questions: *Did this student learn what she or he needed to learn? How well?* In order to make an evaluation, we may look at different collections of evidence for different students.



It is important that we use the evidence available for each student and compare it to the same set of curriculum standards and expectations. In a standards-based evaluation system, we have to account for each student's learning in relation to the expectations for that grade and subject area. While our written and verbal comments may speak to the amount of progress students have made in their learning, the evaluation must reflect their accomplishments in relation to the standards for the subject area and level at which they are working.

"Even with the best of maps and instruments, we can never fully chart our journeys."

Gail Pool



Guiding Our Own Learning

Develop a plan for collecting evidence by returning to your earlier description of what students need to learn, be able to do, and be able to articulate (see *Guiding Our Own Learning* on page 32).

Think about the evidence you and your students will be able to collect. Consider observations, products, and conversations. Make a list of all the evidence related to the learning destination.

When you are finished, review the list, asking yourself:

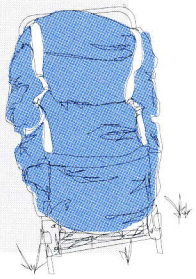
- Will my evidence show whether or not students have learned what they needed to learn?
- Is there any evidence I am collecting for which I am not accountable?
- Am I collecting evidence from multiple sources?
- Am I collecting enough evidence to see patterns over time?
- Am I collecting too much evidence? Is there anything I can stop collecting?
- How can my students be involved in collecting and organizing the evidence?

Show your draft to a trusted colleague. Ask if he or she thinks there is anything you have missed or anything you could delete. Consider the suggestions and make your own decision.

When we divide up the responsibility for developing the first draft, everyone benefits – we improve our work and have more confidence in it. Talk about your list of evidence with others. Share your list. Invite others to share their work with you. After you have piloted the process with one subject area, proceed to do the same with other subject areas or courses.

Guiding the Learning of Students

Prepare the students to *assess their way to success* by asking them to identify all the evidence they might have that shows proof of meeting the learning destination. Ask them to consider not only what *you* would need for proof but also what *others* (i.e. parents, employers, other institutions) would need for proof. Make a joint list of all the possible ideas for evidence of learning in relation to the learning destination. Remind them that the evidence is only a record of what they have learned; it isn't – and can never be – the whole story.





Involving Students in Classroom Assessment

Chapter 6

Contents

Assessment *for* Learning

Involve Students in Setting and Using Criteria

Engage Students in Self-Assessment

Increase the Sources of Specific, Descriptive Feedback

Assist Students to Set Goals

Have Students Collect Evidence Of Learning

Have Students Present Evidence Of Learning

"Good assessment tasks are interchangeable with good instructional tasks."

Lorrie Shepard

Assessment *for* Learning

Do you want engaged, enthusiastic learners? Do you want to work with learners who strive to produce quality work? Do you want your students to learn and achieve more? The research is clear. When students are involved in the classroom assessment process, they become more engaged in learning. Teachers are finding that six key strategies help to create classrooms where learning is the number one focus:

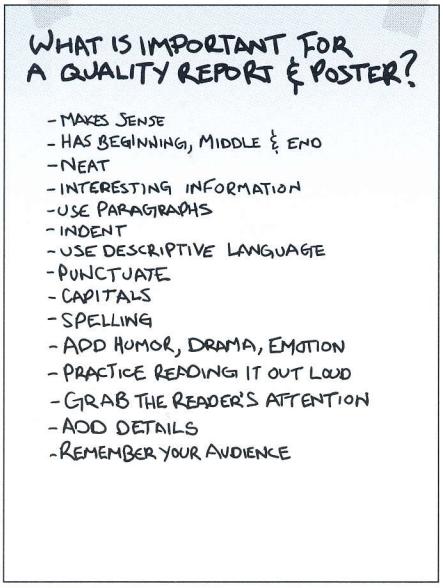
1. Involve students in setting and using criteria.
2. Engage students in self-assessment.
3. Increase the sources of specific, descriptive feedback.
4. Assist students to set goals.
5. Have students collect evidence of learning in relation to standards.
6. Have students present evidence of learning in relation to standards.

Involve Students in Setting and Using Criteria

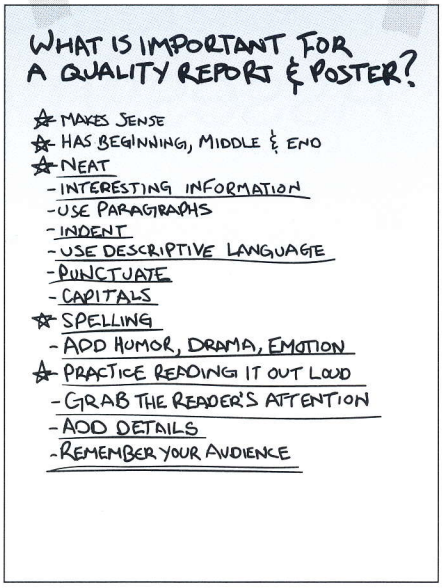
When we ask students what is important in creating a map, writing a story, doing a research report, or presenting to a small group, they get a chance to share their ideas. When teachers involve students in setting

criteria, they learn more about what the students know, and students come to understand what is important while they learn. Refer to Gregory et al.'s (1997) four steps for setting and using criteria (see page 35).

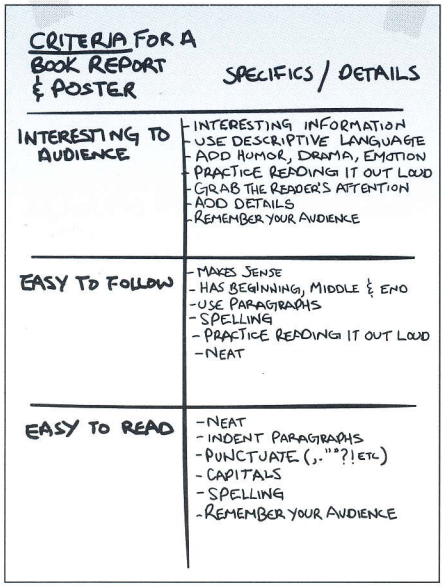
1. Brainstorm a list of ideas



2. Sort and group the ideas



3. Make and post a T-Chart



4. Use and revise as you learn more



Increase the Sources of Specific, Descriptive Feedback

The more specific, descriptive feedback students receive while they are learning, the more learning is possible. Teachers who want all students to succeed, arrange ways for students to give themselves feedback or receive feedback from others. One way teachers do this is by involving students in setting criteria so they can give themselves feedback in relation to the criteria as they are learning. When teachers impose the criteria, no matter how clear, it is not as effective as when students help set the criteria in their own words.

Your Name: _____
Today's Date: _____

Bless me, Ultima Presentation
Self Reflection

Respond to the following in a few sentences.

1. What was one strength of the way in which you presented your poster project (this could be one of the criteria your group focused on or another quality of a good oral presentation)?

I thought my voice was very clear and loud. This is important in making a good presentation because people have to be able to hear you when you make a presentation.

2. What is an area in which you think you need to improve during your next oral presentation review (this could be one of the criteria your group focused on or another quality of a good oral presentation)?

I Think I should make better visuals because it shows how good it is.

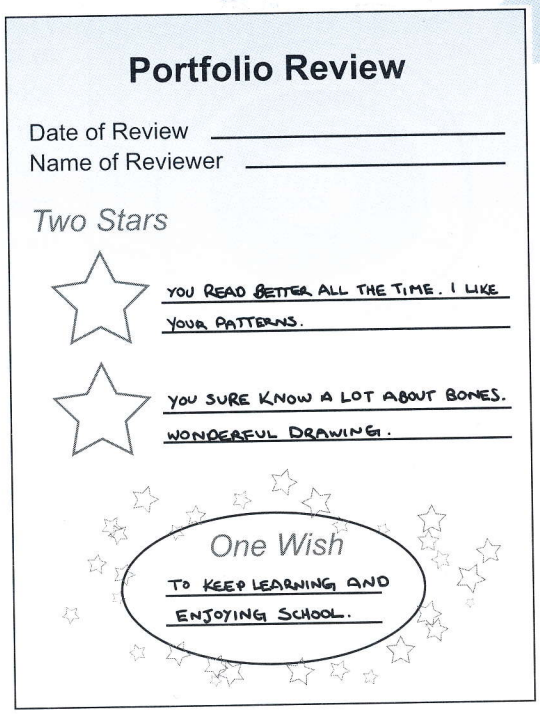
3. What could you do in preparation to practice or develop this skill?

Practice drawing.

With thanks to Holly Tornrose, Yarmouth, Maine

A second way to increase the feedback possibilities for students is to provide models, samples or exemplars; analyze their key attributes *with* students to show what success looks like; and then ask students to use the samples, models and exemplars to help them reach quality. Sometimes teachers demonstrate a range of quality by providing samples that show what the journey to quality looks like; other times teachers show only the best exemplars – samples which illustrate quality. The decision as to whether to show a range of samples or only high quality samples depends on the teacher's purpose for using samples. For example, writing would likely require several samples because every classroom contains a developmental range of students who need to see samples close to where they are. On the other hand, a science teacher may choose to show only outstanding science lab reports, because there is a single destination and it needs to be made very clear so that all students can be successful.

A third way teachers are arranging for students to receive more specific, descriptive feedback is by asking students to assess their peers in relation to criteria and models. The quality of peer assessment increases when it is based on clear criteria and appropriate samples. This not only increases the amount and rate of students' learning, but can also reduce time spent marking and grading.



Portfolio Review

Date of Review _____

Name of Reviewer _____

Two Stars

YOU READ BETTER ALL THE TIME. I LIKE YOUR PATTERNS.

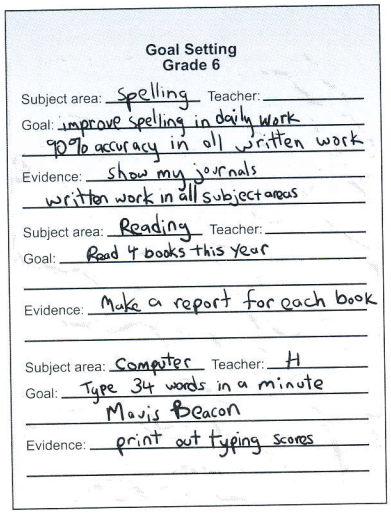
YOU SURE KNOW A LOT ABOUT BONES. WONDERFUL DRAWING.

One Wish

TO KEEP LEARNING AND ENJOYING SCHOOL.

Assist students to set goals

Brain research is indicating that closing in on a goal triggers a part of the brain linked to motivation. Whether you consider the often-reported Yale study where students recording their goals in writing were far more likely to achieve them, or studies related to fitness, weight loss programs or changing any habit, the trend is clearly in support of the power of goal setting. Csikszentmihalyi's (1993) research led him to write "... flow usually occurs when there are clear goals a person tries to reach, and when there is unambiguous feedback as to how well he or she is doing." Goals help bring focus and energy to bear in the service of learning. Teachers working with students know that goals become more specific and realistic when there are clear criteria and samples that show what success looks like. Goals may be short term, in that they identify next steps in the learning; or long-term, i.e., focused on improving the quality of the work – the evidence of learning – over a term or year.



Goal Setting
Grade 6

Subject area: Spelling Teacher: _____

Goal: improve spelling in daily work
90% accuracy in all written work

Evidence: show my journals
written work in all subject areas

Subject area: Reading Teacher: _____

Goal: Read 4 books this year

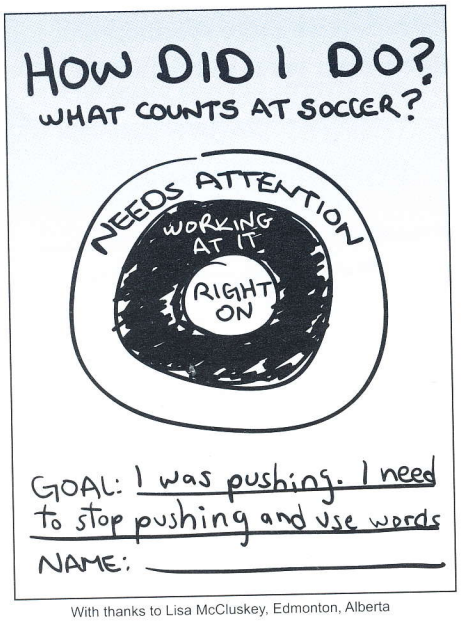
Evidence: Make a report for each book

Subject area: Computer Teacher: H

Goal: Type 34 words in a minute
Mavis Beacon

Evidence: print out typing scores

This goal-setting outline is available as a Blackline Master on page 123 of the Appendix.



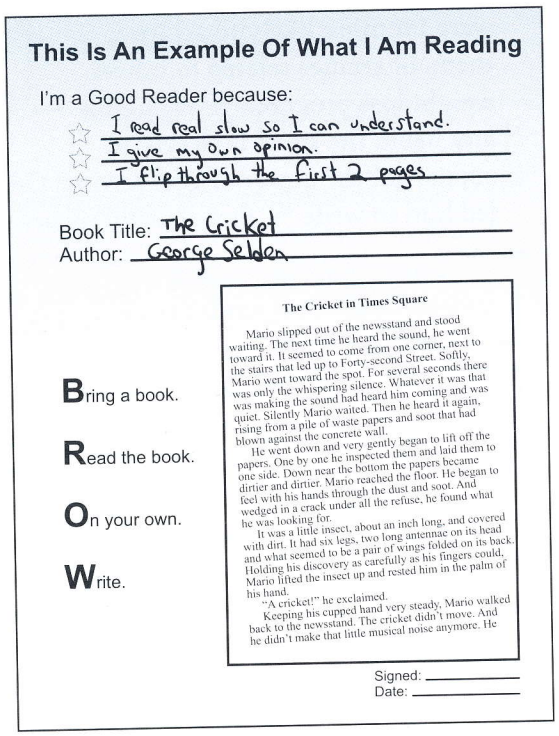
With thanks to Lisa McCluskey, Edmonton, Alberta

Have Students Collect Evidence Of Learning

When students know what they are to learn and what it looks like to be successful, they are informed enough to self-monitor their way to success. When students collect, reflect, organize and present evidence of learning to others, they acquire skills to be more accountable for their own learning. Teachers may invite students to collect their evidence in any number of ways, from online collections to physical portfolios with a specific structure. Again, when the learning destination is clear and students have played a role in brainstorming possible evidence, they are more likely to know what needs to be collected in order for them to show proof of their learning.

Have Students Present Evidence Of Learning

Audience is key to any presentation. Today's students have a variety of audiences, both in their homes and in their communities. As schools seek to be more accountable to the larger community, students are presenting their evidence of learning to a more diverse range of people, both face-to-face and online. Students who learn to present themselves as learners are more prepared to keep families and community informed and involved. Students who know



This Is An Example Of What I Am Reading

I'm a Good Reader because:

- I read real slow so I can understand.
- I give my own opinion.
- I flip through the first 2 pages.

Book Title: The Cricket
Author: George Selden

Bring a book.

Read the book.

On your own.

Write.

The Cricket in Times Square

Mario slipped out of the newsstand and stood waiting. The next time he heard the sound, he went toward it. It seemed to come from one corner, next to the stairs that led up to Forty-second Street. Softly, Mario went toward the spot. For several seconds there was only the whispering silence. Whatever it was that was making the sound had heard him coming and was quiet. Silently Mario waited. Then he heard it again, rising from a pile of waste papers and soot that had blown against the concrete wall.

He went down and very gently began to lift off the papers. One by one he inspected them and laid them to one side. Down near the bottom the papers became dirtier and dirtier. Mario reached the floor. He began to feel with his hands through the dust and soot. And wedged in a crack under all the refuse, he found what he was looking for.

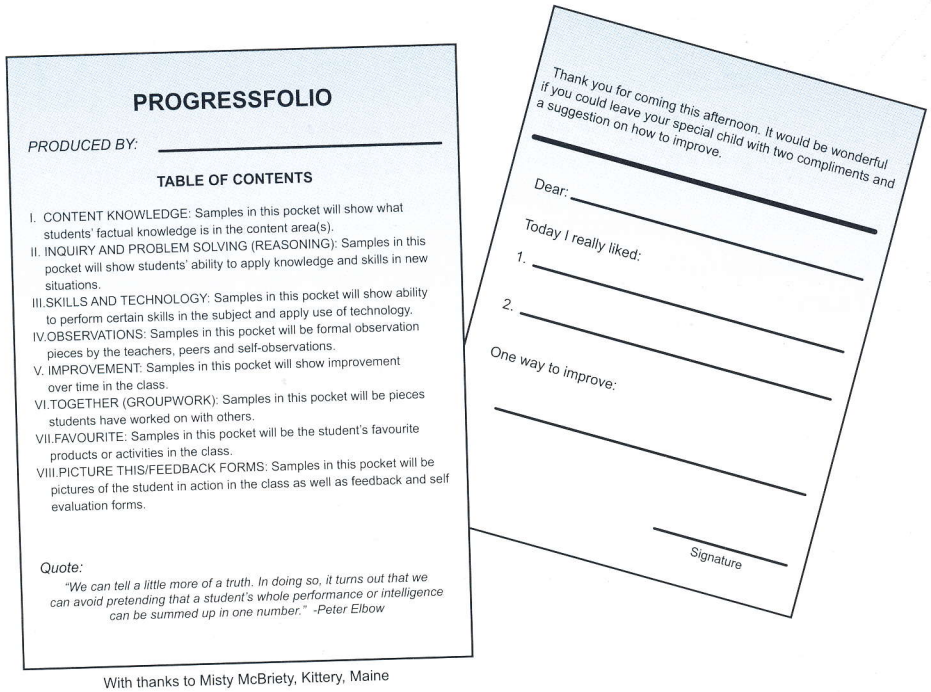
It was a little insect, about an inch long, and covered with dirt. It had six legs, two long antennae on its head and what seemed to be a pair of wings folded on its back. Holding his discovery as carefully as his fingers could, Mario lifted the insect up and rested him in the palm of his hand.

"A cricket!" he exclaimed.

Keeping his cupped hand very steady, Mario walked back to the newsstand. The cricket didn't move. And he didn't make that little musical noise anymore. He

Signed: _____
Date: _____

they will be providing proof of learning often assume more responsibility for collecting, reflecting and organizing the evidence. They are aware of what they know and can present their evidence of learning in ways appropriate to the audience, whether it is made up of their teacher(s), parents, peers, or other community members.



PROGRESSFOLIO

PRODUCED BY: _____

TABLE OF CONTENTS

I. CONTENT KNOWLEDGE: Samples in this pocket will show what students' factual knowledge is in the content area(s).
II. INQUIRY AND PROBLEM SOLVING (REASONING): Samples in this pocket will show students' ability to apply knowledge and skills in new situations.
III. SKILLS AND TECHNOLOGY: Samples in this pocket will show ability to perform certain skills in the subject and apply use of technology.
IV. OBSERVATIONS: Samples in this pocket will be formal observation pieces by the teachers, peers and self-observations.
V. IMPROVEMENT: Samples in this pocket will show improvement over time in the class.
VI. TOGETHER (GROUPWORK): Samples in this pocket will be pieces students have worked on with others.
VII. FAVOURITE: Samples in this pocket will be the student's favourite products or activities in the class.
VIII. PICTURE THIS/FEEDBACK FORMS: Samples in this pocket will be pictures of the student in action in the class as well as feedback and self evaluation forms.

Quote:
"We can tell a little more of a truth. In doing so, it turns out that we can avoid pretending that a student's whole performance or intelligence can be summed up in one number." -Peter Elbow

Thank you for coming this afternoon. It would be wonderful if you could leave your special child with two compliments and a suggestion on how to improve.

Dear: _____

Today I really liked:

1. _____

2. _____

One way to improve:

_____

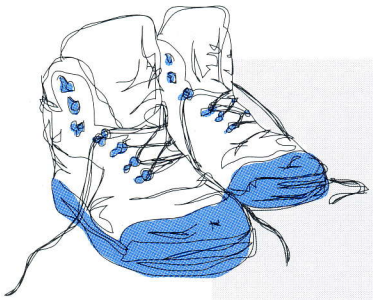
Signature

With thanks to Misty McBriety, Kittery, Maine

As you consider refining and renewing your classroom assessment practices, don't be deceived by how simple it appears to be to involve students in classroom assessment. The ideas themselves are simple, but the implementing of them in today's busy classrooms will take some time. Be assured that the time spent improving classroom assessment will be well worth it in terms of student learning and achievement.

"Holding the mind to a subject is like holding a ship to its course; it implies constant change of position combined with unity of direction."

John Dewey



Guiding Our Own Learning

Think about assessment in your classroom. *How does it guide instruction? How do you involve students in the process? What do you do that is similar to the ideas you have read in this chapter? What is different?* Record your thoughts.

Consider meeting with your learning circle to share ideas and strategies that work. Learning circles often find it helpful to focus on ideas related to the following topics: involving students in setting criteria, collecting samples, engaging students in peer and self-assessment, ways to collect and organize evidence, as well as ways to have students share evidence of their learning with others.

Guiding the Learning of Students

As you prepare students to assess their way to success, remember students need practice setting criteria, engaging in peer and self-assessment, collecting and organizing evidence of their learning as well as sharing evidence of their learning with others. Identify a starting point for you and your students. Consider co-constructing criteria around a project, a process, or a simple classroom routine, such as how to organize their notebooks for easy feedback, how to clean up or how to form a line-up. Once you have criteria that you have set together, then peer and self-assessment are more likely to be purposeful, articulate and pertinent.

