

From: How to Meet Standards, Motivate Students, and Still Enjoy Teaching! By Barbara Benson, Corwin Press, © 2003.

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## Making Reflection Routine

**T**he second major component of a standards-based classroom, after creating a community of learners, is making reflection a routine for the teacher and the students. Reflection is the process of looking back and learning from our experiences and looking forward to plan ways to improve performance. It is a crucial step in any effort to improve student learning—something we must all do in this era of accountability. Reflection has personal value as well since it allows us to pause and take stock of our progress. As Costa and Kallick (2000), respected educators and consultants, state, “Building in frequent opportunities for faculty and students to reflect on their teaching and learning enriches education for all” (p. 60).

Reflection connects to the process for getting quality because it is a major part of the Deming-Shewhart Cycle of Continual Improvement (see Box 2.12). This cycle requires that, if we wish to improve processes or products, we first plan for action, and, after we have acted, we observe and study the results so that we can make a better plan for future action (Aguayo, 1990). Athletic coaches know this process well. They make a plan for the game, play the game, watch the films to study the results, and determine what needs to be done differently as they prepare for the next game. Now they have a plan to play a better game next week. In industry and sports, leaders agree that if we never reflect on what we have done, we will simply continue to do the same things over and over again, never getting any better. Reflection is necessary for improvement in education also.

Another benefit of reflection is that it helps us to process new experiences and new information so that we retain what we learn and can use it later. This is good for teachers so that they can develop new, more effective ways to implement standards and teach students well. It is also necessary for students so that they can remember what they have learned in their classes and succeed on any mandated, high-stakes tests. Our brains enjoy the process of reflecting and actually need it to move new knowledge to long-term memory. If done properly, both teacher and student reflection can be a delightful exercise. As one workshop participant expressed it in one of her reflections several years ago, reflecting, or "lingering over learning" is pleasant. She said:

I like the way the words roll around inside my mouth, and I like the taste they leave behind. We usually only linger over those things that we find enjoyable . . . hot cocoa with whipped cream, a good meal, a table whose seats are occupied by really good friends, a movie we don't want to end, poetry that keeps speaking even after the reading is done. . . . It saddens me that we have generally lost the belief that learning is something we can enjoy, something we linger over and something from which we receive satisfaction. Our hectic, hurry-up-and-get-it-done world needs to reincorporate time for lingering.

## TEACHER REFLECTION

Before teachers can help students learn to reflect effectively, they must be comfortable reflecting about their own learning, processes, and products. Thankfully, many schools of education are recognizing this fact and requiring that novice teachers reflect on a regular basis as part of their courses and student teaching. Some schools are also requiring that students create portfolios documenting their learning and student-teaching experiences. Such requirements are wonderful preparation for new certification tests such as the Praxis for Reading Certification that asks teachers to select specific strategies for certain students or classroom situations and explain why they use them. Building the habit of reflection in young educators is also excellent training for the type of professionals needed for the future (see Box 3.1).

Induction programs for new hires in school systems are also requiring reflection as part of the process for becoming eligible for tenure. The North Carolina Department of Public Instruction (2000) explains to the novice educator,

Through reflection, you begin the ongoing process of blending the art and science of good teaching. Reflection requires you to report and analyze your teaching practice, philosophy, and experience. It also requires you to understand why a lesson was productive or

**Box 3.1** Reflective Practice

The reflective practitioner assumes a dual stance, being, on one hand, the actor in a drama and, on the other hand, the critic who sits in the audience watching and analyzing the entire performance.

SOURCE: K. F. Osterman and R. B. Kottkamp (1993). Used with permission.

nonproductive. This understanding is a necessary step in your progression from novice to master teacher. (p. 7)

Reflection is also necessary as we progress from the traditional classroom to the new type of student-centered classroom that standards now require.

Even though new teachers may be coming into the field with some experience with professional reflection, many veteran teachers were trained before the value of reflection was known. They do not have the habit of formally examining what they are doing in the classroom with the idea of improving it next time. As evidence of this, experienced teachers who go through the process for achieving National Board Certification usually say that the extensive reflection required for the portfolio is the most difficult part. They are used to reflecting in an informal way but have not done the type of deep reflection about their planning, teaching, and assessment methods required for Board Certification.

The fact that teachers are not doing formal reflection on a regular basis, however, does not mean that they do not reflect. All teachers ask three important reflective questions, especially when they have taught something new in class. When the class is over, they think,

- What worked?
- What didn't work?
- What's next?

These three questions are the bare bones of reflection since they do look back to what happened and forward to next time, but the questions need to be more focused and the answers more detailed if the reflection is to have a serious effect on teaching practice.

### **Reflection as Part of the Planning Process**

Teacher reflection should begin in the planning phase of the lesson. Before teachers can make valid plans to teach students, they must think about many things. The following questions are examples of what teachers must consider as they prepare to teach class.

- What is the essential learning in this lesson?
- How will this lesson fit into what we have already done and what we will be doing next?
- Who are my students?
- What do they already know?
- What would interest them about this content?
- How can I engage the students in this lesson?
- What special needs or situations involving my students should I consider?
- When this lesson is over, what do I want students to know and be able to do?
- How will I know they got it?
- What resources do I have available for this lesson?

These questions focus on key issues in planning lessons but are certainly not the only ones teachers might be considering as they plan. To reflect seriously after teaching or assessing students, teachers must have clear goals for the lessons taught. We can't know if we arrived at our destination if we never gave any thought to what that destination was and how we might get there. Reflection before teaching specific material involves goal setting and strategic planning, and it is necessary as the basis for quality reflecting after a lesson and planning for future improvement.

### **Reflecting After Teaching**

Teachers should also reflect when the lesson, unit, marking period, and year is over (see Resources, Sample 13, for a lesson reflection form). They need to look back to consider whether or not they met their targets for student learning. If the lesson was successful, teachers should consider what made it so. In that way they begin to accumulate techniques that work and can be used in future lessons. If the lesson was not successful, the teacher needs to consider what should be changed and how to use the previous experience to improve plans for future lessons. Following are some of the questions teachers could use to reflect on a lesson.

- What did I want to happen during this lesson?
- Did it happen? If so, what went well? If not, where did the lesson stray?
- What could I have done differently to meet the goals I had for the lesson?
- Did the students get the essential learning from the lesson?
- What proof do I have that they understood what I was teaching?
- Were students engaged in the lesson? How do I know?
- What do I need to do when I meet these students again to ensure that they learn essential content that is unclear to them now?
- What did I learn about my class or individual students while teaching this lesson?

Reflecting during and after a lesson is the first step toward planning the next lesson and is the only way that individual teachers will change current practices to meet the new demands of the standards.

## Other Times for Reflecting

There are other things that teachers might be reflecting on besides the lesson structure and implementation. They might be looking at how particular students are reacting to the assignments, and are or are not becoming involved in the class activities. Reflecting on student work is also important because it allows us to see how well students are understanding essential concepts or are mastering required skills. In all these ways, reflecting becomes an invaluable instructional tool. It helps the teacher know what to do next with a class or an individual student.

Another type of teacher reflection involves dealing with specific incidences from the classroom. Two educators working together have developed processes for teacher reflection on classroom occurrences. Hole and McEntee (1999)—a fourth-grade teacher in Rhode Island and the cofounder of Educators Writing for Change—offer two guided protocols, one for individual reflection, and one for shared reflections with a group (see Box 3.2). These could be used to document and reflect on what is going on in a classroom with one or more students. They might be useful for determining how teachers might change their classroom practices to improve classroom behavior or relationships with certain students.

Finally, teachers need to reflect on what they are learning and how it is impacting their students' learning. When teachers attend professional development activities, do professional reading, take postgraduate classes, engage in study or discussion groups in school, or change their instruction or assessment strategies, they should be reflecting on how these activities change their own thinking. They should also be recording what changes they will make in their classrooms due to their learning and then observe how these changes impact student learning. (See Resources, Sample 4, for a sample reflection form to be used after professional workshops or conferences.)

## How to Become a Reflective Teacher

There are numerous ways to make reflection part of your routine as a teacher. For example, if professional portfolios are part of the teachers' evaluation process in your school, reflection becomes a natural accompaniment to the documentation that goes into the portfolio. If portfolios are not required for certified staff, you may decide that you would like to keep a portfolio to document your own learning and practice during a year. This is a great idea, especially if you are changing your instruction and assessment practices. It will give you documentation of what you did as well as how it impacted your students' success.

**Box 3.2** Reflection Protocols**Guided-Reflection Protocol (for Individual Reflection)**

1. *Collect stories.* Some educators find that keeping a set of index cards or a steno book close at hand provides a way to jot down stories as they occur. Others prefer to wait until the end of the day and write in a journal.
2. *What happened?* Choose a story that strikes you as particularly interesting. Write it succinctly.
3. *Why did it happen?* Fill in enough of the context to give the story meaning. Answer the question in a way that makes sense to you.
4. *What might it mean?* Recognizing that there is no one answer is an important step. Explore possible meanings rather than determine the meaning.
5. *What are the implications for practice?* Consider how your practice might change given any new understandings that have emerged from earlier steps.

**Critical-Incidents Protocol (for Shared Reflection)**

1. *Write stories.* Each group member writes briefly in response to the question, What happened? (10 minutes)
2. *Choose a story.* The group decides which story to use. (5 minutes)
3. *What happened?* The presenter reads the written account of what happened and sets it within the context of professional goals. (10 minutes)
4. *Why did it happen?* Colleagues ask clarifying questions. (5 minutes)
5. *What might it mean?* The group raises questions about the incident in the context of the presenter's work. They discuss it as professional, caring colleagues while the presenter listens. (15 minutes)
6. *What are the implications for practice?* The presenter responds, then the group engages in conversation about the implications for the presenter's practice and for the participants' own practice. A useful question at this stage might be, What new insights occurred? (15 minutes)
7. *Debrief the group.* The group talks about what just happened. How did the process work? (10 minutes)

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SOURCE: S. Hole and G. H. McEntee (1999, pp. 36, 37). Used with permission.

Another way to start reflecting is to fill out a reflection form after a lesson that has been observed by an administrator (see Resources, Sample 13, for a sample form). A school might require these forms, or, again, you could decide to do them on your own. In the postobservation conference, this reflection should be part of the discussion, because it will give some insight into your planning and self-assessment process. As a teacher, I know this type of reflection enhances my ability to discuss the observed lesson, and I would definitely use it.

However you begin, do make reflection part of your routine practice. You will need to do this to understand that reflection is more than just what happened. It is a process of understanding why it happened and thinking about what will be necessary to improve the situation or repeat an action that was successful. It seems we do obsess on what went wrong more than on what went right, but I believe that good teaching means analyzing the successful lessons as well as the ones that bomb.

This really came home to me at the end of a very successful year with at-risk students. As we were in the middle of the learning, and racing to finish a video project at the end of the year, I was too busy to marvel at the wonderful things that were happening. When several students returned to my room the week after graduation to finish the video that still needed the sound track, my colleagues pointed out that this was not normal behavior from seniors who have graduated. I agreed and began to look back at the year to determine what had happened. I was thrilled to see the success my students had achieved, and I wanted to do it again the next year. Taking this time to reflect on the positive things the students and I had done changed my teaching and made the next year even better. The experience made me realize the value of reflection and made it easier for me to help my students learn to reflect.

## STUDENT REFLECTION

Reflection is one of the tools for getting students to become more self-directed, responsible, motivated, and concerned about improving their own work. Reflection is also one way to help students process the content they are learning so that it becomes part of their long-term memory and will be accessible when they must take mandated tests. As Caine and Caine (1994), educators and international consultants on applying brain research to classroom practice, state in their discussion of the necessity for active processing for learning, active processing

is the consolidation and internalization of information, by the learner, in a way that is personally meaningful and conceptually coherent. It is the path to understanding, rather than simply to memory. . . . The pervasive objective is to focus on the process of our learning and extract and articulate what has been explored and what it means. In effect, the learner asks in as many ways as

possible, "What did I do?" "Why did I do it?" and "What did I learn?" (pp. 156-157)

Just as for teachers, there are multiple ways for students to reflect and many times in the learning process when reflection is beneficial.

### **Reflecting Before Beginning New Learning**

Having students reflect on what they already know about a topic before they begin new learning is extremely useful for teachers, because it can often help with the planning process. If we know what students know, or think they know, we can begin a new unit or class in the right place for the learners. If they already know a lot about the topic we wish to discuss, we can quickly review the basics they should know and move quickly to new information. This would make it easier to avoid needless repetition of content segments and give teachers more time to teach the more sophisticated content they are expected to get to in the standards.

A teacher who has students reflect on what they know before starting new information also might discover that they have gaps or misinformation in what they should know at this point in their education. In other words, they do not know enough to proceed, or what they think they know is wrong—a problem that is particularly prevalent in science, because children tend to come to their own "scientific" theories about how the world works long before they even enter school. These personal theories are hardwired into their brains and often hard to correct. As a teacher, I really need to know what they think they know so that I know how to proceed effectively.

There are many ways to have students reflect at the beginning of learning. The K-W-L strategy (see Box 2.3), which asks them to list what they know about a topic and what they want to know, can be used with a whole class or could be done individually so that all the children have their own K-W-L sheet. Once students have filled out "What do I know about rain forests?" for example, the teacher could collect the sheets to assess where the class is in their prior knowledge. A teacher who does take up this sheet must be careful to use it for information only, not to grade the responses. If necessary, the teacher could give the students credit for doing the work seriously and completely but should never assign a grade for the quality of the responses. First, giving a grade for the responses would be blatantly unfair since the teacher has not taught students any information yet. Even if they were supposed to have learned something about the topic in another grade or course, it is unfair, and will effectively stop any honest student reflection, if the teacher grades the responses. Instead of reflecting, they will simply try to figure out what the teacher wants to hear and say that.

Another strategy for tapping into prior knowledge is Into-Through-and-Beyond (see Box 2.4) and, just as in K-W-L, students might do this as a group or have their own sheet that a teacher could collect and use to plan appropriate lessons. Teachers can also use Think Pads (Box 2.5) for quick



reflections. For example, students can jot down any knowledge about an upcoming topic on their pads and give these to the teacher as they exit the room. If they don't know anything about the topic, they should respond by writing a question concerning something they would like to know.

A Web of Knowledge (see Resources, Sample 14) is another way to reflect before beginning new learning. In this activity, students draw a circle on a sheet of paper and write the new topic in the middle. Then they write anything they know or want to know on lines out from the center circle. As they continue through the new material, they may correct anything they wrote initially that they learn is incorrect, and they should add information about the topic. Students can compare their Web with others at times as an opportunity to discuss the content they are working on and to correct or add to their individual Webs of Knowledge.

Whatever strategy a teacher uses, having students reflect before learning new information is good for the teacher and for the student. For students, thinking about something they will be learning, and remembering what they might already know, helps them to connect the content to their own experiences. If students can relate to what they are learning, we know that they will be more motivated and more likely to remember the new information. Therefore reflecting at the beginning of new learning, although it may seem to be taking class time away from learning, should be viewed as an instructional activity to engage students in the content. It is not a waste of time. It may, in fact, be the thing that sparks the interest of apathetic students and makes them want to pay attention and, consequently, learn the content.

## Reflecting During Learning

Just as finding out what students know before starting a new unit is useful, finding out what they are understanding as they go through the new material is essential. As a teacher, I knew what I had taught, but I was often totally ignorant of what my students understood until they took the test at the end of the unit. If I had been sure to have some student reflection going on along the way, I would have known if they were hearing what I thought I was saying!

If students started an Into-Through-and-Beyond (Box 2.4) sheet or a Web of Knowledge (Resources, Sample 14) at the beginning of a learning segment, they could stop at times and correct misconceptions, add new learning or questions, and compare their learning to others in the class for the purpose of clarifying concepts and adding more to their sheets. At times, the teacher can take these up to see if students are getting the essential content being taught.

### *Tickets out or in the Door*

Students can be asked to do Tickets out the Door or Tickets in the Door (High Success Network, 1994). The directions for these are in Box 3.3, and

**Box 3.3** Tickets**Ticket out the Door**

1. Give students small pieces of paper—about the size of a small index card—to use as tickets.
2. Ask them to respond to one to three simple questions that do not have a specific right answer but require students to reflect on their own learning and understanding. For example, “List one or two important things you learned in class today and any questions you have about what we were working on.”
3. Give students time to respond.
4. Ask them to put their names and the date on the tickets and give them to you as you stand at the classroom door to collect them.

**Ticket in the Door**

1. This is a good strategy for a Monday, for after a vacation that interrupted a segment of new learning, or for the day after they have had a substitute teacher.
2. Give each student a small piece of paper to use as a ticket—about the size of a small index card—as they enter class.
3. Ask them to put their names on the paper and to respond to one to three questions that require them to reflect on their learning or questions. For example, questions like, What is the most important thing you learned last time we were in class? What questions do you have about the homework you had to do last night? are useful.
4. Collect these reflections or ask students to use them to participate in a class discussion about the last class or to share with a learning partner. If students listed a lot of questions, these could be put on the board so students could answer them or look for the answers during the following classes. In this way, students will be focused because they are looking for the answers to their own questions.
5. If the tickets had questions on them, students could write answers they got in class and turn their tickets in at the end of class as evidence of their participation that day.

*Reminder:* Do not grade the quality of responses on in/out-the-door tickets. Give credit for students taking the assignment seriously and answering all questions!

SOURCE: Adapted from High Success Network (1994).

Figure 3.1 Sample Student Ticket

★ I learned that The pilgrims  
let sale 1620.

★ I learned that

★ pilgrims had a feast.

★ I would bring short  
cloths and heavy  
cloths and Ganing tools  
and Building tools.

A Ticket out the Door from a second grader. The class is studying the pilgrims in social studies. The teacher asked students to list two things they have learned so far and what they would bring if they had journeyed on the *Mayflower*.

Figure 3.1 gives a sample ticket from a second-grade student. This strategy is intended to have students do a quick reflection on their learning. It should take no more than 5 to 10 minutes, depending on the type of questions asked. There should never be more than three questions asked on a ticket, and the questions should vary so students don't get in the habit of giving generic answers to set questions. You can use Think Pad (Box 2.5) paper for these or create small tickets for students to use (see Resources, Sample 15, for a sheet of sample tickets).

Looking at the sample ticket in Figure 3.1, I can see that the student has been studying the Pilgrims and has remembered some important information. I was impressed with the fact that this second grader remembered a date, and that it was correct. My high school and college students often got the dates wrong if they used them at all in their writing. A reflection like this would not be graded (remember, it is not a quiz of any kind), but I would want to keep it as evidence of this student's learning. If we were using student portfolios, this might be one of the artifacts that we would include to show learning. In just this brief reflection, this student has let the teacher know that the content being taught is being learned and has supplied some documentation to prove it.

### *What If I Didn't Learn Anything Today?*

If, when the teacher asks, "What did you learn today?" for a ticket out, students say that they haven't learned anything, the teacher should ask, "Why?" Students should be expected to write the reasons they are not learning. Getting this information is crucial if teachers really want to address the needs of all their students. If a student reports not learning because "Pat is sitting behind me and poking me with a pencil all of class," that is something a teacher can address. If a student isn't getting any sleep because of fighting parents, the teacher can't help the situation but can certainly deal with the student in a sensitive way and, perhaps, increase the student's ability to learn in the class. If a student says, as one of mine did, that "I didn't learn anything in class today because I didn't do my homework and I don't have a clue what you are talking about!" at least the student is taking responsibility for the situation. Certainly, a response like this should be dated and kept for any future meetings with parents.

Student reflection, whether it is on Tickets out the Door or in other forms, is one way we can get to know our students well so we know how to teach them better. Like teacher reflection, student reflection helps the teacher plan for future classes and is an important step in improving learning.

### *What If I Can't Write a Ticket Out?*

Young students who do not write well can tell what they have learned as their ticket out. In Susy Barnett's (personal communication, September, 1993) kindergarten class at Mabel School in Zionville, NC, they ended every day with a circle on the floor where all students were to share one or two things they had learned during the day. She always started the sharing with something she had learned, but Ms. Barnett reports that when she first started this practice, few students could think of anything. If one did come up with an idea, others just responded, "What Bobby said!" Once they got used to the practice however, they were able to report on their own learning. They still needed to be prompted to talk about what they had learned, not just what they had done, during the day. For example, if one reported playing at the sand table, Mrs. Barnett might ask, "Doing

what?" If the child said "We counted blocks and trucks," Ms. Barnett could agree and say "We were doing math, learning to count and combine." This way, the students connect what they were doing with the content they were learning. Another benefit of this practice is that when their mamas asked what the children learned in school that day, every one of her students had something of substance to share. Ms. Barnett says the parents thought she was "better than sliced bread" because their children were learning so much and were able to talk about it.

In addition to helping students remember what they are learning, and helping teachers know how to work with individual students, reflections like Ticket out the Door also send a powerful message to students. They make it clear that students are expected to learn something each day they come to school. School should not be an empty exercise, and students should be taking some responsibility for their own learning. One way we know that this type of reflection does, in fact, send this message is that in Ms. Barnett's class, students who could not say what they were learning at the beginning were soon coming to her throughout the day saying "Guess what I'm learning now?" and sharing their new knowledge. If we could imprint this message that each child should be learning every day into all the 5-year-old minds and reinforce it every year, think how wonderful school would be for all of us and what empowered learners we would be graduating each June.

### *Reflecting on Assignments*

Students can also do reflection on assignments. This can be especially useful on homework papers. Students could be asked to reflect before turning in work. On the back of their paper, they could write any questions or confusions they had in doing the work. They could also explain what they want the teacher to notice when evaluating the work. This is a very interesting question that might get responses like "I want you to notice that I finished this time!" or "I want you to notice that I stopped after problem 11 because I got so confused." Such responses give teachers appropriate ways to deal with students and respond to their assignments (see Resources, Sample 16, for a list of questions for student reflection).

### *Double Windows*

A strategy called Double Windows can also be used to have students reflect as they are learning (see Resources, Sample 17, for a Double Windows form). The title of this activity comes from the idea of having students stop and step outside of the learning activities they have been engaged in to think about them from two different perspectives—new learning and ways to apply the learning beyond the classroom.

In this activity, students have a page to keep in their notebooks. At times during a week, month, or unit of study, they are asked to take a few minutes to record on the left side of the page what they have learned and, on the right, what they might be able to do with their new knowledge. The

types of things they might list on the left are new information, new connections—the “Ah Ha!” experience of suddenly understanding things you knew before but didn’t connect in a meaningful way—and new questions the new information might have generated. On the right side, they can list ways they might use what they are learning. Everything listed on the left may not have a corresponding item on the right, because we often learn something new before we can see how we will apply it. An example might be that a third grader has learned to multiply by three, but it may be awhile before he realizes that he could use this to see how many pieces of silverware to put on the table for a family gathering. Hopefully, students will begin to fill up the right side as they understand the relevance of the content they are learning. Teachers, if you use this strategy with students, you will want to take these pages up at times to see what students are learning so you can plan accordingly.

Keep in mind that reflections along the way, just like reflections at the beginning of learning, should not be graded for the quality or correctness of the content information. Reflection is only valuable if it is honest and concerns the students’ personal reactions and self-assessment more than it asks for content facts. If students insist on asking “Are you grading this?” tell them they will get credit for taking the reflection seriously and answering all the questions you pose. Usually students will stop asking about how reflection will be graded once they understand its purpose and begin to realize that reflecting on their own work is helping them to improve work when it *is* going to be graded.

## **Reflecting at the End**

Although there really shouldn’t be an end to learning, there are points in the school year when we are done for the time being with a particular lesson, concept, or unit. It is essential that students reflect on what they have learned, how they are going to use it, and what they can do to improve their performance on the next assignment. This type of reflection is important because it allows students to review essential learning, helps them clearly verbalize what they have learned, helps with goal setting for improvement, and sets the stage for the next learning.

As with reflection at other points in the learning, there are many ways to reflect at the end. If students have begun a graphic organizer of their learning, such as K-W-L, Into-Through-and-Beyond, or a Web of Knowledge, they can complete these as a means of reflecting on content. Into-Through-and-Beyond is particularly good for this because the Beyond step asks students to think about how they will use in the future the things they have learned.

Students who keep journals could be required to reflect on the ending of a unit, and students who are creating showcase portfolios will be doing reflection on individual pieces of work as well as culminating reflections on units, grading periods, and the year as a whole. Students can be asked to reflect on specific content area skills at the end of marking periods (see Resources, Sample 18, for a math form). For example, students learning to

write could be asked how they see themselves as writers, how they have improved, what they need to do next, and how the teacher might help them. If they are participating in health and physical education classes, they could be asked to assess their physical fitness level and set goals for improvement. These reflections could reference the goals that students set earlier in the year, to see how they are doing in meeting their targets. Whatever subject is concerned, the reflection should deal with the students' learning process, not the content facts. Teachers should have ample evidence of the content knowledge from other assessments like class assignments and tests. Remember, reflection is about the student and the student's learning processes, not the subject information.

If students are writing this type of reflection, the questions they are asked to respond to should vary so that they don't just go on automatic pilot when they are reflecting. If students always write to the same questions, you will start to get generic reflections—they all sound the same and really will have little or no impact on student performance. What you would hope to see, as students get better at reflecting, is that their reflections become very honest and elaborated. Once my students got comfortable writing reflections on a regular basis, the formal reflections they put into their portfolios were often more revealing of what they were learning than the piece of work the reflection accompanied.

### *Reflecting on a Test*

Another reflection at the end can occur after students have taken a test, and the teacher has returned and discussed the areas students need to correct. Students could be asked to turn the paper over and respond to the following three questions:

- What did you do well on this test?
- What was your weakest area on this test?
- What could you do to improve on the next test? List one strategy you could use.

This is a short but complete reflection because it asks students to look backward and then look ahead with the idea of improving their performance. Students should be able to answer the first two questions easily because the teacher has marked the paper. The third question, however, is the most important one, and students may need to discuss realistic strategies. Once again, it is easy to see that reflection connects directly to improving the quality of students' work.

Having students reflect on their learning and progress towards quality sends the message that students are expected to be able to self-assess and work consistently to become better learners. Eventually, the goal of the reflection strategy in the previous paragraph would be to have students answer the three questions *before* they turn in their work for grading. If the criteria for quality work are clear, students should be able to learn how to

look at their own work, see what they have done well and not so well, and plan for future improvement. Of course, they will not be able to do this at the beginning of the year, but if they reflect on a regular basis about their learning, their processes, their work, and ways to improve, they should develop the ability to self-assess accurately.

### *Reflecting on a Big Assignment*

Before students turn in a big project or research paper, teachers could ask them to write responses to one or more of the following:

- What did you learn about your topic?
- Did you learn anything interesting that you were not able to include in the paper or other work? If so, what is it?
- What did you learn about the process of researching, experimenting, creating a display, or writing a large piece?
- What are you especially pleased about in your final product?
- If you could do this project again, what would you do differently and why?
- What will you do next time you have an assignment like this to improve the quality of your work?

### *What a Teacher Can Learn From Student Reflection*

To illustrate once again how valuable student reflection can be for helping teachers plan and deal with individual student needs, I would like to share a student reflection. The following was written on the day that senior term papers were due in one of my high school classes. I asked students to take a sheet of paper and answer these questions:

1. Tell me one interesting thing you learned about your topic and one thing you learned about the research process.
2. What are you pleased with in your paper?
3. If you could do it again, what would you do differently to improve it?

One student responded in the follow ways. To the first question, she said, "I learned that AIDS (her topic) is continually overlooked because most people feel it could never happen to them. I also learned that using the computers for research is a quick and effective method." From her first response, I can tell that she is beginning to understand one role technology can play in her education, as an effective tool for research. In some systems, this recognition is part of technology literacy requirements, and if I needed to document that she had met this requirement, I could save this reflection. I also learned that she got one of the major truths about young people and AIDS, which is that they don't think they will get it.

Her second response about what she liked in her paper gave me invaluable information about how to respond to her work. She said, "I'm



pleased with my organization of the entire paper; I feel as though it was well thought out." As the person who is going to grade her paper, I gained from this honest answer a lot of insight into how to help her improve her writing. If she has done a good job of organizing her paper, I need to be sure to say so. All English teachers know that at times we get so pressed to finish a set of papers that we only comment on the errors, not the successes. Novice writers need to hear about what they are doing well to give them confidence for trying to do even better, so I need to say "Good job!" whenever I can.

If, however, her paper is not well organized, I need to be very careful in how I let her know. If I did not know that she thinks she has organized well, I might rip into that paper with my red pen and give her permanent writing anxiety. She could end up feeling really stupid—so stupid that she doesn't even know when she is off base! Knowing that she believes that she has been successful at organizing this piece, I can weigh how I respond so that I do not destroy her emerging confidence in her writing. I can point out what is organized well or how it has improved from her last assignment before I show her where and how she needs to do even better. She has given me a real key to responding to her work and helping her continue to improve as a writer.

Her response to the third question is also revealing. She said, "I would try to type this paper a little sooner than I did to ensure the final product would be ready on time." In fact, she did not have her paper ready to turn in on the day it was due, even though she did turn in the reflection. Saying that she would start typing sooner is not an excuse but is a realization she has come to since she could not get it done on time. She has accepted responsibility for the late paper and, if it were ever needed, I would have a dated reflection from her to explain any grade penalty that she might get for the late work.

This one little reflection, which took less than 10 minutes of class time, has given me a wealth of information about my student and how to respond to her. It will make me a better teacher as we work on the writing standards the student has to meet and will increase her probability of success. It was not time taken away from my content—it was about the content standards of research and writing, and well worth the time it took.

### *Reflecting and Sharing*

An additional method of reflection at the end of a learning segment is having students brainstorm what they have learned in each subject over a week and then write a letter to their parents to inform them about the week's learning. This is a great strategy for involving parents in the students' learning as well as having students reflect on a regular basis. The brainstorming can be done individually, in small groups, or as a whole class. Most teachers would like to know what students are reporting that they have learned, so there is an opportunity for corrections if kids are confused about something. Therefore even if students do the brainstorming

Figure 3.2 Steven's Reflection Letter

Dear Mom and Dad .  
 This week I have learned  
 many things, like in math  
 we learned about fractions,  
 the minute math, what a fractions,  
 and problems of the day.  
 In S. I. we learned about  
 farming in the 1800s.  
 In reading, I have made  
 my goal and finished  
farmer boy.  
 In science, we learned  
 alot of things. We learned  
 about machines and levers.  
 I am doing well on  
 math.  
 Please write coment.  
 love  
 Steven

alone, it is a good idea to have them report to the class or add to a class-brainstorming list.

If letter writing is part of the curriculum at the grade level where students are doing this, it can be covered in this activity as well. This is also an excellent activity for students who will be conducting student-led conferencing with adults at some point in the school year because it allows them to get into the habit of reflecting on and discussing their learning with adults who care about them. This strategy is appropriate for students who can write, but is particularly successful with Grades 3 to 8.

Look at the student letter in Figure 3.2 and consider what you can learn about Steven from his reflection. Obviously, his favorite subject is math. He has been setting goals and is proud that he has met his reading goal. He is generally feeling really good about himself as a learner. Many teachers, however, might cringe at the fact that his letter includes numerous errors in standard English and spelling. It is not hard to see that writing is probably one of the areas where this student struggles. With that in

mind, consider what would happen if a teacher were to grade this letter for grammar and make Steven rewrite it to correct the errors. It would destroy his willingness to reflect honestly next time. In fact, Steven is smart enough to figure out that if he will have to rewrite until the letter is perfect, he'd better write short.

The purpose of Steven's letter is to communicate with his parents about what he has learned. It is not to write an A letter or even to get a grade on the letter itself. Some parents, however, would be disturbed to get a letter like this with all the errors evident. So if teachers plan to have students share their reflections with their parents, they will need to inform the parents about the purpose of the letters. They can assure the parents that there will be many other graded writing assignments that the child will have to correct, and that the parents should see improvement in their child's writing skills as the year progresses.

The idea of a weekly letter home is such a great way for students to reflect and share their learning that one kindergarten teacher decided to figure out how her nonwriters could do it. Throughout the week as students were working on different parts of their curriculum, she took pictures with a digital camera. On her computer, she put together a one-page newsletter with pictures showing students learning the different content areas that week (see Resources, Sample 19, for a model form). On Friday afternoon, the class looked at the pictures and discussed what they were doing and what they were learning as they worked on the activities shown. Then the students took the newsletter home and shared it with their parents. In this way, students had a chance to verbalize what they had learned, and parents got a view into the classroom. It was a very successful adaptation of the written weekly letter home. It is also a wonderful example of how teachers can and should constantly gather good teaching ideas and adapt them for the learners in their classrooms.

## CONCLUDING REFLECTION

Although we have been talking about reflecting at the end of learning, reflection is really an activity that realizes that there is no end to learning. It gives the teacher and the student valuable information with which to move forward into the next learning phase. For teachers, reflection allows them to step back and look at their own practices in the classroom with an eye toward the new standards, changes, and improvements they can implement. It also gives them a vehicle for considering how to use their own new knowledge in helping students learn more effectively.

For students, reflection offers a chance to consider what they are learning, a chance to linger over the content and process it in their own minds so that it will become part of their long-term memory, and a chance to communicate with teachers in a nonthreatening, quality-focused way. Teachers often tell me in training follow-up sessions that the one thing they have trouble fitting into class time is reflection. They say they feel so pressured

to teach content that there's no time to stop and let students reflect on what they've been learning. Although taking the time for reflection often feels like time off task, it is, in fact, a standards-based activity. Reflection involves many of the process skills that standards demand: analysis, evaluation, self-assessment, goal setting, communication, and acceptance of responsibility for their own learning. It helps students learn the content more effectively because it gives them time to process it and put it into their own words and lives. Reflection also motivates them by giving them an investment in their learning and the belief that they can plan for improvement and do better next time.

In classrooms that must change to meet the demands being made on students by the learning standards, reflection is a necessary tool. It should be part of the planning teachers do, one of the expectations administrators have for teachers and students, and a habit students have. If we are to succeed in raising student achievement, we must all make time for lingering over the learning we've done and planning for the next step.

## **IDEAS FOR TEACHERS**

- Set up a system for your own reflections. For example, you can start your own journal, or you can get a folder and put dated sticky notes in it with brief reflections concerning your students, class, and lessons. If you have a computer in your classroom, you can set up a file for your reflections and take a few minutes at the end of each day to jot down your thoughts before you turn off the computer. Set up a tape recorder and reflect as you drive home in the afternoon. Be sure you give the date of each reflection as you record it.
- You could use a form to reflect on some of your lessons. You can use the one given in Resources, Sample 13, or create your own from the questions listed at the beginning of this chapter.
- Set up an environment in your classroom which is conducive to reflection by providing appropriate wait time when asking questions; using open-ended, problem-solving activities with students and embracing alternative solutions; encouraging students to ask questions and take risks without fear of reprisal; and being sure to have students explain their processes, justify their answers, set goals for improvement, and self-assess their work.
- Develop and use a variety of reflection methods with students. Use some of the ones listed in this and the preceding chapter, like K-W-L, Into-Through-and-Beyond, Think Pads, Web of Knowledge, Ticket in and out the Door, Double Windows, assessing the test or assignment, or weekly letter home.
- Make reflection time part of your lesson plan. If you don't plan for it, you won't remember to do it in the rush to get the curriculum information to students.

- When you start having students reflect, remember that they really don't know how to do this. You will have to model it. It is also best to start with small reflections that do not take much time.
- Assure students that their reflections will not be graded on the content information, but they will receive credit if they take it seriously and answer the prompt questions completely.

## IDEAS FOR ADMINISTRATORS

If you want to include reflection in your school as a tool for improvement, you will need to help both teachers and students make reflection a routine. For teachers to make reflection part of their professional practice, they will need to learn how to reflect, have time for reflection, and receive ongoing support to continue the practice. This is where building administrators become invaluable. Principals, you will need to establish reflection as a priority in your buildings (see Box 3.4). You will also need to learn to reflect in order to model it for the teachers and help them do it well.

The first step in having teachers reflect will be making sure that they have a process for reflection. There are a number of processes that could be used as long as they involve looking at past experience and planning for improvement. One that is being taught to young teachers comes from Smyth (1989). It involves a simple cycle with four steps:

- Describing what I am doing now
- Informing by figuring out what my current activity means
- Confronting why I am doing what I do and how I came to this practice
- Reconstructing by thinking about how I might do things differently (pp. 2-9)

Smyth's Cycle of Reflective Practice is very general and intended to focus on all areas of teacher practice. A principal could decide to focus teachers' reflections on lesson planning to meet standards and use Smyth's questions for reflections in planning and analyzing the effectiveness of lessons. These questions could become the process that particular school uses. (See Resources, Sample 13, for a model reflection form for a lesson.)

### Box 3.4 What Teachers Need to Reflect

Becoming a reflective practitioner requires time, practice, and an environment supportive of the development and organization of the reflection process.

SOURCE: North Carolina State Department of Public Instruction (2000, p. 9).

No matter what process is selected, teachers will need to have the steps clearly explained and have the opportunity to practice as many times as needed to become comfortable with the sequence of reflection questions.

Ideas for other things you can do follow:

- Make reflection a part of what is expected of teachers as they are observed and evaluated.
- Remember that many teachers may never have done formal reflections and will need a definition, a rationale, and some sort of guide for the reflective process you want them to follow. They may also need for you to model what you mean by reflection.
- Find and share good articles on teacher and student reflection with your faculty. If you have shared articles, be sure to allot time for talking about them. This time could be in department meetings, grade-level meetings, study groups, or faculty meetings.
- Schedule time for teachers to share and analyze lessons together. Be sure these sessions are more than just swapping project ideas, but really require that teachers talk about what has worked in their classes, why they think it worked, and what they would caution others about if they decided to try this lesson. These sessions could also involve sharing lessons that didn't work and discussing what might have gone wrong.
- Make your school a place where teachers can take risks without fear of reprisal. Having students do reflection will feel very risky for some teachers, and they will need your support to try it and to continue to do it even if it doesn't go perfectly the first time.
- Assure teachers that reflection is part of teaching to the content standards, which contain both content facts and process skills. For example, in all content areas, students are expected to be able to analyze, synthesize, predict, and write clearly about their learning. When students reflect, they are doing all these competencies and more. Each time they reflect on their learning, they are also reviewing the content they know—one way of helping them remember it.
- If you visit a class and students are reflecting, congratulate that teacher!