14 Total Quality: A Farewell to Grades

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Remained, no pleasant images of trees,
of sea or Sky, no colours of green fields,
But huge and mighty Forms, that do not live
Like living men, moved slowly through the mind
By day, and were a trouble to my dreams.

—Wordsworth, *The Prelude* ll. 395–400

One day, back when I was in school, I suspected trouble brewing when one of our two teachers began to cry. "Grades are so unfair," she said, turning away. Her fellow instructor agreed and shocked us all by announcing that they had decided to give one student an A and the rest of the class A-minuses. To my classmates' credit, they remained civil for the remainder of this, our final class meeting. After class was dismissed, we soon determined, through a process of elimination, which student received the A, and some ugliness surfaced.

Although this experience did not change the admiration I felt for the instructors both then and now, it did alter my thoughts about graduate school and has been a constant trouble to my dreams. It took many years, and much more grading experience, before I fathomed what happened.

The instructors' hands had been tied, probably by an unwritten school policy or code prohibiting teachers from awarding all students A's. As teachers, their choice was to defy school policy and use judgment, or follow policy and abandon it. What if they'd said:

> You've been a great class. Your attendance is nearly perfect, your participation exemplary, your work ethic refreshing, and

> your attitude inspirational. You've done your reading faithfully and recorded it splendidly in the journals you've kept. We think you all deserve an A. However, school policy prohibits that. We did the only thing we could think to do: we drew one name out of a hat and gave that person the top grade. We know this sounds unfair, but the other way around is even more so. Thank you, and we're sorry this had to occur.

This incident stands for what many teachers feel about grading: there is something discomforting and unfair about the process. Teachers with significant experience know the student described above: great attitude, fantastic work ethic, perfect attendance, cooperative spirit. Yet after the final class, the grade averages out to 93.42. The cutoff for an A is 94. Another student, who has few of the above qualities but does well on timed tests, has a 93.46 average. Sound familiar?

My purpose here is not to prove that grades are unfair (that's discussed elsewhere in this volume) but to provide an alternative. I would like to discuss what "total quality education" (TQE) is, how it works in the classroom, how well it works, and why it does.

What Is Total Quality Education?

The way he viewed grading is what first attracted me to the views of W. Edwards Deming, the founder and best-known practitioner of the total quality movement:

> Abolish grades (A, B, C, D) in school, from toddlers on up....When graded, pupils put emphasis on the grade, not on learning....The greatest evil from grades is forced ranking—only (e.g.) 20 per cent of pupils may receive [an] A. Ridiculous. There is no shortage of good pupils. (Deming, *New Economics* 148)

Deming's system—*total quality transformation*—offers an alternative to teacher-centered grading. His system is based upon participatory management. To understand the classroom implications better, let's consider the opening anecdote: What if the instructors had explained the situation and asked the students for input? I believe a better solution would have been found. Perhaps one student would have voluntarily accepted an A-. Perhaps a few, or all, would have. However, TQE is not about outcomes; it is about competencies.

In my business English class, I am using competency-based assessment delivered through a pass/fail (A/F) grading system measured in a portfolio outcome. That's a lot of jargon for one sentence, so here's a breakdown:

a. Students take an active role in determining the purpose and vision of the class and are largely responsible for establishing quality standards.

b. Students have as many opportunities as they wish to do each assignment. When each project is completed successfully, they earn an A.

c. Students learn TQE as part of the course content, learning how to use tools for problem solving and statistical-process control to create continuous improvement.

d. Students assume responsibility for recordkeeping. At the end of the term, they must "document, defend, or demonstrate" (Langford, Lecture) the course competencies during a portfolio-review process.

Students want answers to three questions:

1. Why am I here?
2. What are we going to do today?
3. How will I be graded? (adapted from Langford, *Quality Learning* 8)

TQE addresses those three questions systematically.

How It Works

Day one: I use the first ten hours (seven of thirty-two class periods) to introduce TQE theory and the management/leadership tools. The first day of class, students are asked: "Why are you here?" Some students may be uneasy with the question, but if the first response is not what you hope for, try a *five-why process* (Langford, *Quality Learning*). If a student answers, "My curriculum requires it," simply ask, "Why does it require it?" By the fourth or fifth "why," the real purpose, learning, surfaces. Students receive note cards and are asked to answer another question: "What is the purpose of the learning in ENG 165?" They hand in the note cards and are asked to write a friendly letter listing their hopes and fears for the class. This is a rough draft, but they are instructed to do the best they can within the time frame (forty-five minutes). This becomes their diagnostic writing. While they write, I compile key phrases from the note cards on an overhead projector. The class consolidates these phrases into a general-purpose statement. We discuss ideas openly and meld them into one statement. To see the amount of agreement, we use a *consensogram process* (Langford, *Quality Learning*) to determine the student commitment. If the level is sufficient, we adjourn. If not, we revise.

Day two: A typed copy of the class-purpose statement is brought to class for discussion and final revision. After *operational definitions* (Langford, *Quality Learning*) are made and agreement reached, each student is asked to sign the statement. Students are given Post-It® notes and asked, "What do you need to know or learn in order to achieve your purpose?" This is called an *affinity process* (Langford, *Quality Learning*), and students, working in small groups, take all the responses and cluster them into like categories. One student is asked to record the responses. The others are excused.

Day three: Students complete a *purpose and vision process* (Langford, *Quality Learning*) by melding the results of the affinity process with the existing course guide (students will have the same competencies plus many more). Another consensogram is done to determine commitment. Students are introduced to the *flow tree process* (Langford, *Quality Learning*).

Day four: Students discuss a first draft of a *competency matrix* (Langford, *Quality Learning*), which reflects the types and amount of learning they have created through the affinity process. They receive a portfolio checklist. They use *imagineering* (Langford, *Quality Learning*) to design a "perfect" portfolio. The results of this focused brainstorming process establish the standards for portfolios.

By the end of day four, students know why they are here and what they are going to be doing each day. Participatory management is the cornerstone of TQE: "Create constancy of purpose toward improvement. . ." (Deming, *Out of the Crisis* 23). Students have agreed to learn, signed the agreement, and generated a list of projects they wish to do.

Day five: We study grading systems. For teachers, grades often represent a task to be completed at the end of the term. For students, grades are everything: They can mean scholarships, family financial support, self-esteem, loans, or grants. The way a teacher designs, delivers, and administers grades is an outward expression of an educational philosophy. When school policies become restrictive in any of those categories, the possibility of genuine, positive human relationships developing between the students and the teacher is severely undermined. If TQE represents hope for the future of our schools, it lies in this fact: *It is a better management system* for student/teacher interaction.

Day five begins with the *F-test* (Langford, *Quality Learning*). Students review all they know about the letter F. They review upper- and lowercase letter location (beginning, middle, end). They are allowed

questions. A short (200-word) passage is placed on an overhead, and students are asked to count the number of times the letter occurs. They are given three minutes for task completion.

The example has thirty F's. No student has found more than twenty-nine; the mean score is usually around twenty-one. This brief activity sums up timed, basic-skills tests: Did the students have the competency? (Yes.) Did the teacher teach the test? (Yes.) Did the teacher do a good job? (I'd like to think so.) What went wrong? Why didn't students perform better? Did they care? (I gave a pep talk.) Did they try? (They knew their scores would be recorded.) Why didn't they perform better on a task asking them to review a competency they already had? Answers (the result of student brainstorming): The writing was small; the lighting was poor; the time limit caused anxiety; the focus was divided by reading and counting; some were tired; they had poor seating; they were distracted by movement and noise. All are defensible causes. My question is this: Wouldn't those statements also be true of any timed basic-skills test ever given?

To study the results of this test, students, working in groups now, are taught to record the results of the F-test on a *histogram* (Langford, *Quality Learning*). They are shown the *six sigma quality* (three standard deviations above and below the mean score). They are asked to grade their classmates' performance on the test, using the standard deviations. They are asked if they have problems with the results (most do have problems). They are introduced to *variation theory* (Deming, *New Economics*). They are taught that the only valid points on the histogram are the mean and the upper and lower control limits. All points that fall in between the control limits stem from common cause (see above). If any points do not, they may be considered to have special cause (i.e., the student is diabetic, her glasses are broken, etc.). The only valuable information a control chart gives is whether the system is stable (variation has common cause) or unstable (variation attributed to special cause). Regrettably, education has misappropriated the normal distribution aspect of control charts into a grade distribution method:

> Grading and ranking produce artificial scarcity of top grades. Only a few students are admitted to the top grades. . . .
>
> This is wrong. There is no scarcity of good pupils. There is no scarcity of good people. There is no reason why everyone in a class should not be in the top grade, nor at the bottom, nor anywhere else. Moreover, a grade is only the teacher's subjective opinion. This is so even for the result of an examination.

> What is the effect of grading and ranking? Answer: humiliation of those that do not receive top grades or top rank. The effect of humiliation is demoralization of the individual. (Deming, *New Economics* 151)

Students are then given the raw scores of their friendly letters (first-day diagnostic), asked to enter that data on a histogram, and draw conclusions about that.

Day six: Students are taught the *Pareto process* (Langford, *Quality Learning*) by categorizing the types and frequency of writing errors on their diagnostics. Their task is to locate which errors constitute 80 percent of all those made by students. I have labeled the errors for them. Normally, four types constitute 80 percent: format, paragraphing, punctuation, and spelling/usage. The others are normally trace elements. We use this information to create quality standards for our business writing assignments. The goal of total quality is "continuous improvement." In my experience, student-set quality standards will be high. We discuss the nature of the errors and decide to eliminate all format and paragraphing errors, restrict those involving punctuation and spelling/usage, and limit the others.

"In time management jargon, this...Pareto Principle—80 percent of the results flow from 20 percent of the activities" (Covey 156)—focuses on the large problems first, so that immediate results are seen. Later in the term, after form and paragraph errors are eliminated totally, we will do another Pareto process in order to focus on a "new" 80 percent. On a typical memo or letter, students may allow one or two errors, with zero tolerance for projects like résumés or cover letters.

Day seven: We conclude the theory and begin the practice. Students, working in familiar groups, study the pluses and minuses of working in teams. Teamwork cannot be overemphasized in the modern workplace or classroom environment. During a recent employers' day seminar at our school, a panelist was asked to name three skills a floor-level employee should have. The employer thought momentarily and replied: "Teams. Teams. Teams. For better or worse, teams." As schools move toward student-centered learning, as tech prep gains momentum, and as schools gravitate toward long-block scheduling, the ability of a teacher to employ learning teams in the classroom becomes a survival skill. Two-hour classes make lecturing less desirable—for students and teachers.

The student teams do a *force field analysis* (Langford, *Quality Learning*) to determine the societal pressures supporting and opposing the team environment; they use *multi-voting* (Langford, *Quality Learning*) to limit the list of opposing forces to the five or six most likely

causes; and, they use a *relationship process* (Langford, *Quality Learning*) to determine the primary cause that prevents team success. Then, students are given three assignments:

1. As a team, write a persuasive memo which clearly states whether pass/fail (A/F) grading is inferior or superior to rating and ranking (A, B, C, D, F). Attach a *deployment flow chart* (Langford, *Quality Learning*).

2. As an individual, write a memo to the instructor informing him of which grading system you would prefer to be measured by. This is an authentic assignment; the memo is a contract.

3. As a team, write a procedural memo composed of two parts: a code of cooperation which all members can agree upon, and a list of roles each member agrees to perform on behalf of the group. Initial this agreement and hand it in to the instructor.

The rest of the class periods, days eight through twenty-nine (class periods thirty through thirty-two are set aside for group and individual portfolio reviews), represent a fairly typical English classroom, I suspect. Students, working in teams, begin the twelve to fourteen writing projects they have created for themselves. As facilitator, I limit lectures to fifteen minutes each day. Students have roughly an hour of unstructured team time during each of these class periods. They are not required to stay in the classroom; rather, they are encouraged to find work areas outside it. Our college has a lifelong learning competency for all students, staff, and employees. Students soon realize learning takes place outside the classroom. The first two memos have a word-processing requirement, so the computer lab becomes an alternate classroom for some students. I teach one member (the scribe) of each team how to enter data with a word-processing program, how to save it, and how to print it. That person assumes responsibility for teaching the other members of the team how to do the same.

The goal of this, and all of my classes, is for the students *to become independent learners*. Most days I stay in the classroom; on others, I move to the computer lab; near the end of the term, I spend time in my office in order to provide more individual conference time. Team members assigned the facilitator role are trained to build agendas, and each group member is asked to meet with me for a mandatory ten-minute progress report at least once per term.

How Well Does It Work?

As I said earlier, I am using this system in only one class, English 165: "Professional Communications," but TQE has forced me to reevaluate the way I grade in all my classes, and it has made me a portfolio fan.

To measure the success of the course, I use the *Shewhart cycle* ("plan-do-study-act") *for learning and improvement* (Deming, *New Economics*). I decided to analyze the results against two cohort groups: all classes at the college and all English classes. So far, I have data on 146 students from seven sections. I broke the results into two groups: successful and unsuccessful completion. Operationally, for a college student, I define success as A, B, C, while D, F, and W (withdrawal) are failures (see Table 1). While the numbers are encouraging, I wish to emphasize this: Even if the numbers were slightly below the two cohort groups, I would still be willing to state unequivocally that TQE is a *better classroom management system* because it is more humane and more fair.

The most frequent criticism I receive (from other teachers) is that this system leads to grade inflation. I respond to this argument by granting it. I say,

> Yes. I inflate grades by nine points. I'll admit it, if you will be willing to admit the possibility that your grades may be inflated by as little as one point. Now, if my students, who are receiving 94 percent, are, in reality, only earning 85 percent, what does that mean? It means the worst student in class is doing B- work. Now, what if one of your students received a 70 percent (D-)? Which of us has a stronger accountability argument?

Table 1. Analysis Results

No receiving	By TQE	In all English	In all classes
# of A: (%)	115 (78%)	196 (28%)	2,637 (34%)
# of B: (%)	5 (3%)	196 (28%)	3,174 (41%)
# of C: (%)	1 (1%)	103 (15%)	listed w/B's
# of D: (%)	0 —	28 (4%)	294 (4%)
# of F: (%)	9 (6%)	41 (6%)	294 (4%)
# of W: (%)	16 (11%)	126 (18%)	1,261 (16%)

SUCCESS/FAILURE RATIO:
by TQE method: 82/18
In all English: 71/29
In all classes: 76/24

Source: College Office of Institutional Effectiveness.

Most good teachers know from experience that students will live up, or down, to teacher standards. Where should the standards be set?

I have always liked the writing process. An accept/revise system creates true process (see Figure 1). Students are no longer asked to revise because the teacher wants them to; they revise because they have agreed to. Participatory management is a key to what works, but this system has other benefits: conflict resolution, critical thinking, and *profound knowledge.* All play vital roles in creating a new classroom vitality.

Conflict Resolution

I asked a group of student development staff members to brainstorm the major sources of conflict between students and teachers. Their list included the following:

- personality conflicts
- design, delivery, or administration of grades
- deadlines/time management
- attendance/punctuality

TQE can help in all four areas, indirectly in the first and last. Personality conflicts are often the product of the second item, above. My grading system allows students to *choose* their grade. The success chart indicates only 6 percent have chosen to be rated and/or ranked. Students in the class have only one *deadline:* the class periods reserved at the end of the term for portfolio review. Instead of deadlines, I teach time management. One good method revolves around "Habit Three: Put First Things First" (Covey 145). The idea of working on matters that are "important, not urgent," is a good motto, so Covey's Quadrant II design fits the class perfectly.

Deadlines, whether we like to admit it, exist in education primarily for teacher convenience. We justify them on "real-world" grounds: They replicate the busy world of work that lurks out there beyond graduation ceremonies. Education, though, is a process, and students tend to view deadlines as an authority issue, regardless of our justifications. Factory-line mentality fits schools more poorly in the nineties than it did even thirty years ago. The underlying principle in the total quality approach is that *all students have the same capacity to learn, even if they don't learn at the same rate.*

By substituting time management for deadlines, we give students a skill more valuable than meeting deadlines: self-management.

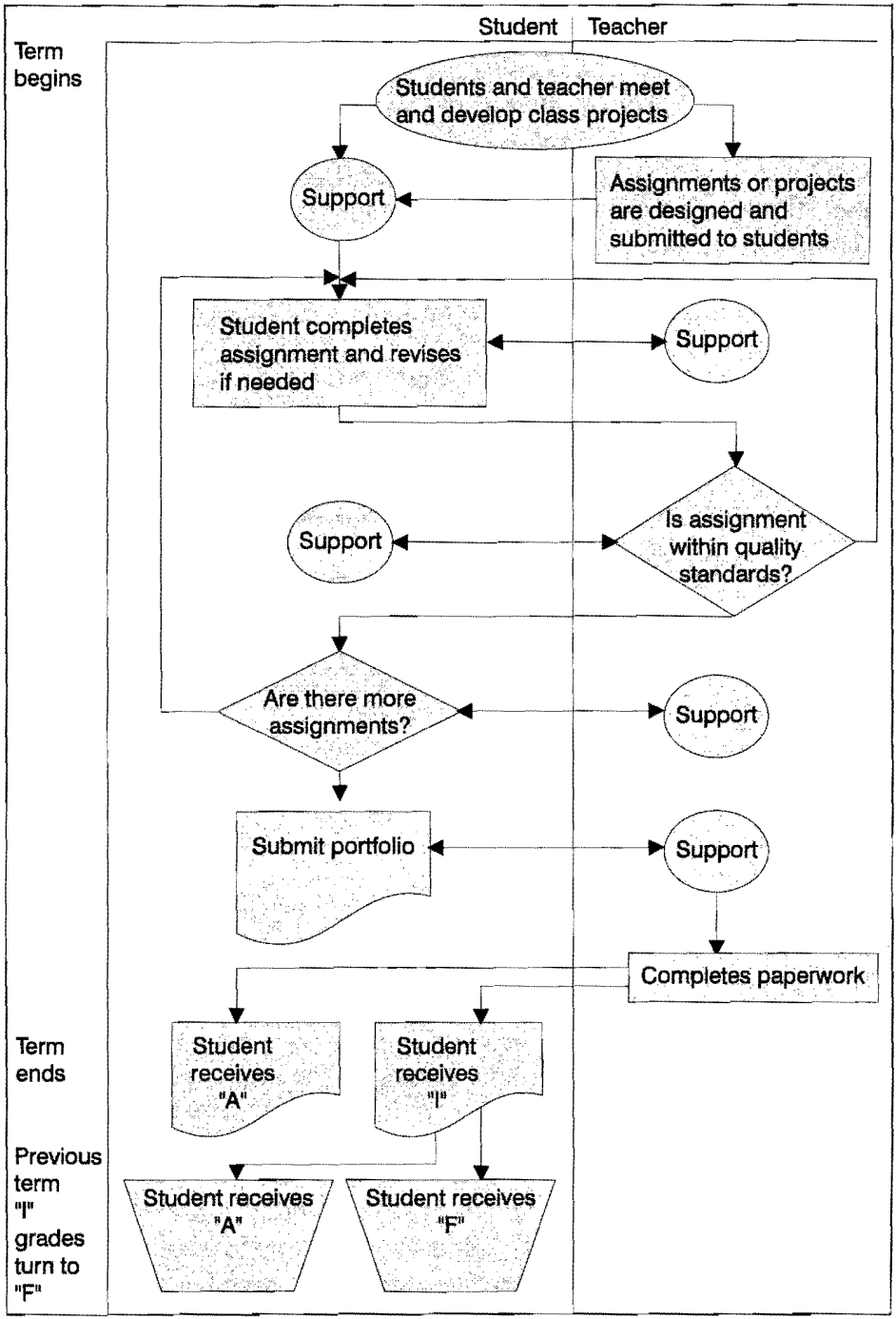

Figure 1. Flowchart of typical accept/revise grade system. (Lynda Rutledge, Spring Semester 1996.)

Freeing our students from responsibility is one way for them to learn it. Eliminating deadlines may sound scary to some teachers, but the fact remains that papers come in at the same rate as they would in any classroom but without the hassle. The percentage of efficient and mature students in any class will be a constant regardless of pedagogy. What happens sans deadlines is that responsible students will complete work before the end of the term and irresponsible ones will put it off. Sound familiar? Instead of dumping deadlines, I suggest trying a modified approach, such as the "no questions asked" (NQA) coupon plan (Reeves). Reeves gives his students four NQA coupons at the beginning of the term. Students turning in late papers attach a coupon, and it is accepted, no questions asked. Students are rewarded for not using coupons, while Reeves accepts no late papers without one. Try this. On a small scale, it offers evidence that students do have a collective sense of responsibility.

An important digression: For the teacher using TQE, the paper flow remains about the same, but *the paper load decreases dramatically!* There are many reasons. The first is that higher standards create better first drafts. The second is that papers are not marked unless the student approves. The third is that, using accept/revise, papers may be rejected orally, with comments such as "The heading is formatted incorrectly," or "I see three spelling errors. That's too many." This system promotes on-the-spot usage acquisition, which is an extremely effective approach. I do not normally take papers home. I can't say that about any other class.

Although *attendance* and *punctuality* can be sore spots in any classroom, the TQE system can defuse potential conflicts between student and teacher. During the first seven class periods (the "theory" and "tools"), attendance is very important, but once the students form work teams, responsibility shifts from the teacher to the team members. We systematically study the school's attendance policy using flow charts. By doing so, students learn who has the attendance choice, who records it, and who processes the withdrawals. Systems analysis can be very enlightening, particularly on issues such as fair treatment. Deployment flow charts clearly teach lines of responsibility.

Tools

Earlier, I mentioned several TQE tools. The tools enable students to learn management and leadership skills. Each tool teaches students critical thinking, problem solving, and collaborative learning. A new basic skills list ought to include those three. The tools teach all three

efficiently (minimal cost, reasonable time and effort). The bibliography makes note of two sources that describe TQE tools in detail. *Total Quality Tools for Education* organizes each tool around five statements:

> What is it?
>
> What does it look like?
>
> When is it used?
>
> How is it made?
>
> Remember.

By using the tools, the classroom becomes student-centered areas for active learning. More important, the tools teach students processes for critical thinking, process analysis, and systems analysis.

Profound Knowledge

Deming notes that

> profound knowledge appears here in four parts, all related to each other:
>
> - Appreciation for a system
> - Knowledge about variation
> - Theory of knowledge
> - Psychology [of change]
>
> One need not be eminent in any part of profound knowledge in order to understand it and apply it. (Deming, *New Economics* 23)

Total quality helps students view the world as a series of interrelated systems. Profound knowledge could be summed up in the short phrase "appreciation for a system," except one also needs to understand variation theory and enough about human nature to realize people resist change. Deming insists that a person needn't be "eminent" in any of those areas. A person needs to know math, but needn't be brilliant, only conscientious. The tools explain what needs to be done to gather continuous improvement information. For students who understand the concept of profound knowledge (and it will not be all of them), total quality is liberating. It turns future workers into managers, future managers into leaders. Deming's system is for leadership development, to take us "out of the crisis."

Portfolios and Assessment

A note or two on portfolio assessment: The first time I tried using portfolios, I got burned. I know why. I kept them. I kept them for the stu-

dents and in my classroom. I did not release ownership. Now, I have a new rule: Never, ever touch a student portfolio. Doing so not only violates ownership, but releases the student from responsibility for tracking his or her learning. I remember walking out of my classroom Friday afternoons with a fifty-pound cardboard box full of student portfolios that needed grading over the weekend. I hated portfolios.

Now I only see them during the final class periods, and I don't touch them. During portfolio review, students show me the documentation for all completed projects from their checklists. Students color code personal competency matrices to show the level of learning attained for each one listed. I may have handled each component part of the portfolio, but do not touch it. I like portfolios, now.

I also firmly believe that portfolios are *the only sane response to the accountability nightmare* obsessing our state education departments and legislatures. Standardized tests, achievement tests, and exit tests strangle our educational system. Deming opposes using tests for measurement (he feels their only purpose is prediction) and feels inspection/regulation is counterproductive: "Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis" (Deming, *Out of the Crisis*). He knows that mass inspection creates diminishing returns. We use systemized testing to rate and rank our teachers, administrators, schools, and states the way teachers do students. Not only that, as we invest more and more of our educational time, talent, and treasure in the process of designing, creating, field-testing, researching, selecting, promoting, delivering, administering, collating, measuring, evaluating, and assessing standardized tests, we lose time, talent, and treasure that could be spent on students, equipment, classrooms, and instruction. Legislators and bureaucrats rob our students' resources, yet they still have the temerity to hold schools accountable for improvement despite dwindling instructional support, staff, and equipment.

TQE and portfolio assessment offer a sane response to that: random samples of student portfolios are kept on record. The student demonstrates competency, the teacher displays standards, and the district shows responsibility. Teachers should not fear competency-based assessment, *unless we persist in rating and ranking.* We know what a good paper looks like and when one is correct. If we design processes that allow students opportunities to meet those standards, why worry about accountability? One student summed up her TQE learning this way:

> The TQE system acknowledges that students learn, read, understand, comprehend, remember, and test differently, yet grades us equally, either by passing or failing.
>
> When I have taken tests in other classes, I have been very reluctant to ask why there are so many check marks on my papers—mainly because I am afraid I may have been the only person to miss that question. In the TQE class, when a paper has been turned in, the instructor gives each student the opportunity for a one-on-one conference to discuss any errors and how to avoid making the same ones again.
>
> TQE is a better method of grading and teaching. The students set the quality standards, not the "State." Students are more involved in this classroom than my other classes. There is actually more time involvement for the students but in the process of completing the projects, we become more like teachers than students.

Competency-based education may be the future of education (Barker). TQE gives us the opportunity to move from grading to learning, from assessment to accountability, and from management to leadership. Why wait?

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Interlude

Every child who walks into my room (whether in sixth grade, seventh, or eighth) starts out with an A on that first writing assignment. At the beginning of the year, I have my own personal expectations, but no expectations for them. They have responded (in some way) and so have I (with an A). Hey...they have success...some boast about it; some quietly fold their papers...maybe they never have had an A in writing before. Then, we get down to business. (This does not mean the A's will stop.) We, as a nation, as school teachers, as students, are programmed to A's and SOOOOOOO for the first quarter everyone gets A's....They begin to feel that they could do more editing, more proofreading...more with ideas. . . more something. (By the way, we're working in English class on grammar and other skills—speech, reading—so grades for writing only count 1/4...not enough to slant the grades...but certainly enough to encourage writing.) If they feel successful, they will experiment...and if they experiment, there is a whole world of ideas for the next writing lesson, the next grammar lesson. Let them succeed for a bit before we begin carping...at least a quarter....

—Jeanette Werner
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