

# Seven Key Notes on Minimal Competency Testing\*

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*This author examines seven key questions that get to the heart of the controversy over minimal competency testing.*

I want to strike not one but seven key notes since the policy you compose for minimum competency testing must have seven themes or it will be an unfinished symphony. That is, there are seven things to think about, seven elements in your competency policy:

1. What competencies will you require?
2. How will you measure them?
3. When will you measure them?
4. How many minimums will you set?
5. How high will you set the minimums?
6. Will they be for schools or for students?
7. What will you do about the incompetent?

## What Competencies?

Begin by distinguishing between school skills and life skills, between the skills it takes to get by in school and the skills it takes to get by in life, between those needed to succeed later in school and those needed to succeed later in life.

There is a difference, and there are different tests for them. Here is a question from a *school skills* test:

- If John has 70 marbles and gives José 13 marbles and gets 26 marbles from Slim and gives 38 marbles to Alice, how many marbles does John have left?

And here is an item from a *life skills* test:

- Balance this checkbook by adding these deposit slips and subtracting those cancelled checks.

Both require arithmetic, but the first one, although it sounds easier, requires the student to abstract the ideas, decide to add and subtract, and arrange the numbers before making the computation, while the second one does not. The first are classic skills of the school room, excellent predictors of success in higher levels of mathematics. In fact, it is more important to set the problem up correctly than to get the right number of marbles—if we are talking about *school skills*.

But if we are talking about *life skills*, getting the bank balance right is everything. Here is another *school skills* question:

- If there are 77 teeth in  $2\frac{3}{4}$  inches of hacksaw blade, how many teeth are there in  $3\frac{1}{3}$  inches?

Here is another *life skills* question:

- To saw very hard metal, should you buy a hacksaw blade with few teeth or many teeth?

\* ECS has published a discussion guide written by Dr. Brickell outlining alternatives for minimum competency testing. A checklist with pros and cons, the guide is designed for legislators, citizens committees, school board members, school administrators, and school faculties. Single copies are available for \$5; packets of 5, \$15; packets of 10, \$25; packets of 20, \$40; from Education Commission of the States, 300 Lincoln Tower, 1860 Lincoln Street, Denver, Colorado 80295.

The first will indicate whether the student is ready for the next course in school; the second will indicate whether the student is ready for the shopping center. Both are important. Which competencies should you require?

How about school skills for the college-bound and life skills for the job-bound? Or maybe both for everybody? How about school skills for promotion to the next grade and life skills for graduation from school? Or maybe both at every point in school so that every student must climb a stepladder of learning with its rungs held up on two sides: school skills on one side, life skills on the other side?

Of course, there are basic skills—such as reading, writing, and arithmetic—used in both school and life, which is why we call them “basic.”

Thus you have five choices. You could test competency in each:

1. Basic skill
2. School subject
3. Life area
4. Basic skill *applied* in each school subject
5. Basic skill *applied* in each life area.

The obvious choice is #1: Basic skills. But wait a minute. Look at the others.

- Unless you choose #2, teachers of art and music and science and social studies and foreign languages and driver education and vocational subjects will have no minimum standards.

- Unless you choose #3, teachers can teach about school and not about life.

- Unless you choose #4, students may spell a list of words correctly in English class but mispell them in their science laboratory notebooks.

- Unless you choose #5, students may learn to add and subtract but be unable to balance their checkbooks.

But you can't select them all because schools do not have time and money for that much testing. So choose very thoughtfully. You will have to live with the consequences.

## How Measured?

How will you measure the competencies? The possibilities range from testing through actual

experience to testing with paper and pencil. There are some points in between:

| 1                                   | 2                                      | 3                                      | 4                      |
|-------------------------------------|----------------------------------------|----------------------------------------|------------------------|
| Actual<br>Performance<br>Situations | Simulated<br>Performance<br>Situations | School<br>Products and<br>Performances | Paper<br>And<br>Pencil |

So you have four choices. You could test through:

1. *Actual performance* situations in later school or on the job. This is the ideal “testing.” The student demonstrates minimum competency by entering and graduating from the next level of schooling or getting a job and keeping it. The trouble is that such “testing” is expensive; it takes years; and the results come back too late to help either the school or the student.

2. *Simulated performance* situations set up in the schoolhouse to resemble those in later school or on the job. This is good testing. The student demonstrates minimum competency in artificial situations like the real ones to come. This is cheaper, takes less time, and gives quicker results to help school and student correct failures. But it isn't perfect: (a) the situations are not real and the results may not match actual performance later, (b) there are few good tests available, and (c) it takes more time and money than using paper and pencil.

3. *School products and performances*. These are essays, paintings, experiments, clarinet solos, brake jobs, speeches, touchdowns—things students make or do while studying in school. This is not as good as simulated performance testing because the student usually has had help, the test pressures are missing, and it is hard to score the results. But it takes less time and money than arranging special simulations.

4. *Paper and pencil tests* in the classroom—what we usually think of as “tests.” Most of these measure a narrow band of knowledge or skill and are far removed from actual performance situations. Thus the results may not foreshadow later success in school and life, where success depends on attitudes, values, personal warmth, leadership, creativity, physical strength, and other things a person cannot show with a piece of paper and a pencil. But those tests are quick, easy, cheap, and available.

To summarize, as you move away from actual performance situations in life and move toward paper and pencil, testing becomes easier and cheaper, but the test results become less likely to predict later success. Thus a student can fail on a minimum competency paper and pencil test, but pass in the actual performance situations of real life. Remember this later when we talk about using test results to withhold diplomas.

Now you might want to do this: use simulated performance situations to test *life skills*, and use paper and pencil to test *school skills*.

Here's why: taking a paper and pencil test is, in fact, an actual performance situation in school. Indeed, you could call it the most important school skill of all. In that sense, paper and pencil tests are not artificially removed from school, but only from life. Since a student who does well on a paper and pencil test today should also do well in school tomorrow, you may choose to test school skills accordingly.

Remember: different kinds of tests may give you quite different results. So decide carefully.

There is another decision you have to make. Will you develop your own tests or use what is available? As you move toward paper and pencil and as you decide to test school skills, you will find more and more tests to choose from. And vice versa. For instance, you will find many paper and pencil tests of solving science problems, an important school skill, but you will find few simulated performance tests of ethical behavior, an important life skill.

### When Measured?

Will you measure competencies during school or at the end of school?

*Do it during school* if you believe:

- You want to measure competency to move up from grade to grade in school.
- Students and their parents deserve a distant early warning if there is trouble ahead.
- Administrators need to make changes any time students do not progress: changes in curriculum, course selection, faculty in-service training. Only formal competency tests will alert administrators to unsatisfactory learning early enough to do something about it.

*Do it at the end of school* if you believe:

- You want to measure competency to move out of school and into the next school or into life.
- Students learn at different rates. All students deserve enough time to reach the minimum.
- Teacher-made tests and daily classroom contact will identify students who are not making progress during school. Formal competency testing is not needed.

Now, you could measure:

- *School skills during school* to decide promotion from grade to grade.
- *Life skills at the end of school* to determine graduation.

Or you could measure *both at the end* if you feel that:

- Even the college-bound should be competent for life (many college students have already started working).
- Even the job-bound should be competent for further school (adults returning to school fill half the college classrooms today).

### One Minimum or Many?

Will you set one minimum for all students or will you consider ability, special talents, family background, or other factors we know affect the *learning of students*? Will you set one minimum for all schools or will you consider community characteristics, faculty composition, school spending, or other factors we know affect the *quality of schools*?

Think about student ability as one example. A single standard can be too hard for a dull student, yet be too easy for a bright student: impossible for the dull and thus not motivating, trivial for the bright and thus not motivating, objectionable to parents and teachers of the dull, laughable to parents and teachers of the bright, and thus acceptable to none of them.

Using a graduated standard on a sliding scale according to ability will solve all those problems, and it will instantly create others. A graduated standard expects less of some students. "Expect less, get less" is a formula most parents and teachers don't like. A graduated standard will grant a diploma to a dull but energetic stu-

dent who gets 40 points on the exam and refuse a diploma to a bright but lazy student who gets 60 points on the exam. Moreover, current ability tests may not give fair and accurate measures, and thus cannot guide expected achievement.

Is there a compromise with the best of both worlds? Yes, but it also has the worst of both worlds. You can use a low minimum for every student regardless of ability and a graduated minimum for students of, say, above-average ability. This does not expect the impossible from anyone but it does expect more from students who clearly can do more. The old problems, such as how to measure ability, are still there, of course.

The identical principles apply to setting single standards versus graduated standards for schools as for students. A single standard may demand nothing of a wealthy suburban school and the impossible of a poor ghetto school. A graduated standard may label poor schools as places without hope or give them an excuse for not improving, neither of which is good for students, teachers, administrators, or students.

Perhaps you should set a separate standard for each student, considering his/her ability, special talents, and backgrounds—a standard negotiated among student, teacher, and parent. And perhaps the same for each school—a separate standard negotiated among board, administration, and faculty. Admittedly, the logistics would be formidable.

You may want to arrange several minimums into a graduated sequence to check student progress from grade to grade. Again, you may want to set a rough, general minimum immediately and refine it into specifics over the years ahead.

### How High the Minimum?

If you take a cross-section of a school at any grade, you will find that some students are actually performing far above that grade and others far below. Some fifth graders do eighth-grade work, while others do second-grade work. Some twelfth graders do college work, while others do sixth-grade work. The school is a staircase with one step labeled "seventh," but only half the 12-year-olds are standing on it.

Recently, a group of high school teachers

made two minimum competency tests for the end of tenth grade: one in English, the other in mathematics. Any student who failed would get remediation, possibly two years of it, and possibly no diploma—good reason for the teachers to make the tests fairly easy and good reason for the students to try fairly hard.

I saw the tests and would say they were about fifth-grade level—long division, spell "separate," things like that—with a passing score of 60 percent. Not very hard. About 25 percent of the tenth graders flunked the English; about 50 percent flunked the math.

I talked with the teachers and principals afterward:

"Suppose remediation doesn't work," I said. "Students haven't learned it in five years and may not in two more. Then what? How many diplomas can you withhold at commencement—as many as 20 percent?"

"Of course not! Parents wouldn't stand for it. The Board, the administration, and the faculty would cave in under the pressure," they said.

"Then how many diplomas can you refuse? How about 5 percent?" I said.

"Make that 3 percent," they said.

"All right, 3 percent. Then 97 percent *have* to pass the minimum competency tests. What can you teachers and principals *guarantee*—not wish—that 97 percent of all graduates can do?" I said.

"Guarantee? Really *guarantee* for 97 percent. Well, first-grade work; maybe second grade—if you mean a guaranteed minimum," they said.

"Won't that be embarrassing to the school?" I said. "Second-grade work?"

"Not as embarrassing as withholding 20 percent of the diplomas," they said.

You need to understand that, traditionally, minimums are something schools try for, not guarantee. They are goals, not standards. "Zero defects" is not a schoolhouse expression; "each student to his/her own potential" is. And just as that potential has no upper limit, it has no lower limit.

How many students can your school or state afford to remediate—or not promote or not graduate if remediation fails—afford both economically and politically? About 10 percent, more or less?

Certainly it isn't 20 percent, the percent failing competency tests in many places today. Say it is 5 percent. Whatever it is, the percent failing the test will probably be higher. If you can't raise students to meet the minimum, will you lower the minimum to meet the students? Those are the only two ways to guarantee that 95 percent will succeed.

You need to think ahead about that. Better choose a passing score, make a pilot run with your tests, see how many students fail, and decide whether to raise the students or lower the tests. A too-difficult test will embarrass you with too many failures, and you will have to cut loopholes in it to let students escape—grandfather clauses, setting very low passing scores to start with and raising them year by year, and other loopholes. A too-easy test will embarrass you by being a joke to above-average students, their parents, and the taxpayers.

Don't forget the twelve-year range in the achievement of "twelfth-graders." No public school in America has been able to eliminate it.

Oh, yes. There is something else about the minimum. How can you call it a "minimum" if the successful adults in town—butcher, baker, candlestick maker, doctor, lawyer, bureaucrat—cannot pass it? Should you define "successful" adulthood as being off welfare and out of prison, give the test to a cross-section of adults, and then make the passing score equal the lowest score made by any successful adult in town? In short, what do you mean by "minimally competent?" Can you find an adult example of it walking the streets and pick his/her test score as your standard? How could you justify making it any higher?

### For Schools or Students?

One state has a new set of reading tests for grades four, eight, and twelve. What should it set as the minimum score on each test? To get the answer, that state set up an independent panel of teachers, administrators, and citizens. Then it told the panel what it meant by "minimum":

The minimal acceptable outcome is defined as the percentage of fourth graders you believe *must* be able to respond correctly to the item for you to consider reading instruction to be meeting the *minimal* needs of our students.

In making your decision on minimal acceptable performance, you will want to consider: (a) the importance of the skill being measured by the item; and (b) the intrinsic difficulty of the item itself. If the actual student performance on the item falls below the percentage figure you select, then you would consider present instruction in that skill area to be unacceptable.

And it gave the panel an example:

In this example, the estimate for the minimal acceptable outcome is 40 percent. If the actual outcome were below 40 percent, you would feel very concerned about instruction of the reading skill measured by the particular item.

And if more than, for example, 70 percent got the answer right, you would feel rather satisfied, the state went on to explain to the panel.

But what about the other 30 percent who got it wrong? How could the panel possibly be satisfied with the performance of that 30 percent? The answer is that the panel was not looking at that 30 percent as individual students. It was only looking at overall school performance. And if 70 percent of the students got the right answer, that was good enough. In short, that state wanted a minimum for the school, not for each individual student.

But what will you do: Will you judge students or will you judge schools? Must each person measure up or must each program measure up? Can the school program succeed even though some students fail?

Can you see how important the difference is? It determines whether you will write test items all students can pass or only most students can pass; whether you will test everybody or only a sample; whether you will report results to each individual parent or only to the general public; whether you will settle for a school program that reaches, say, 70 percent of the students even if that 70 percent misses, for example, every single disadvantaged child; and whether you will modify every unsatisfactory program or fail and recycle every unsatisfactory graduate?

You can see the difference in costs, types of tests, demands on the professional staff to teach every student, pressures on each student to succeed, and political action by parents of each student who fails.

## What About Incompetents?

What will you do about incompetent *students*?

1. Verify the findings independently before acting?
2. Give them several more chances?
3. Lower the standard so they can pass?
4. Remediate so they can pass?
5. Refuse to promote or graduate them until they can pass?
6. Promote or graduate them with a restricted diploma or certificate of attendance?

What will you do about incompetent *schools*?

1. Verify the findings independently?
2. Give them several more chances?
3. Lower the standard so they can operate?
4. Redesign their programs to match successful programs?
5. Refuse to let them operate unless they meet the standard?
6. Let them operate but refuse to accredit them?

You notice the parallels, of course. Whether you are requiring each student to be competent or each school to make a majority of its students competent, you can check the findings, give another chance to succeed, lower standards, modify the program, insist they meet standards before continuing, or let them go on, but advertise their shortcomings to outsiders.

If *students*, each incompetent one must be held back, or remediated, or labeled, and sent on. If *schools*, current students can be moved on through uninterrupted but, to help future students, the school must be closed or improved or left open, but have a skull and crossbones painted on the door.

## Summary

There is a lot to think about in a minimum competency program: what competencies, how to measure, when to measure, one minimum or many, how high the minimum, for students or for schools, and what to do with the incompetent.

Using the accompanying checklist will help you think carefully.

Figure 1: Policy Alternatives Checklist  
for  
Minimum Competency Testing

1. What Competencies?
  - ☐ Basic skills
  - ☐ School subjects
  - ☐ Life areas
  - ☐ Basic skills *applied* in school subjects
  - ☐ Basic skills *applied* in life areas
2. How Measured?
  - ☐ Actual performance situations
  - ☐ Simulated performance situations
  - ☐ School products and performances
  - ☐ Paper and pencil tests
3. When Measured?
  - ☐ During school
  - ☐ At the end of school
4. One Minimum or Many?
  - ☐ Single standard for all
  - ☐ Graduated standards according to:
    - ☐ Ability
    - ☐ Family background
  - ☐ Differentiated standards according to:
    - ☐ Special talents
    - ☐ Special interests
5. How High the Minimum?
  - ☐ Based on actual test performance of successful adults
  - ☐ Based on judgments by informed adults
  - ☐ Accepted failure rate on first testing:
    - ☐ 1%
    - ☐ 3%
    - ☐ 5%
    - ☐ 10%
    - ☐ 15%
    - ☐ 20%

### 6. For Schools or Students?

- ☐ Schools
- ☐ Students

### 7. What About Incompetents?

| Schools                  | Students                 | Treatment                             |
|--------------------------|--------------------------|---------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Verify Findings                       |
| <input type="checkbox"/> | <input type="checkbox"/> | Give More Chances to Pass             |
| <input type="checkbox"/> | <input type="checkbox"/> | Lower Standard                        |
| <input type="checkbox"/> | <input type="checkbox"/> | Redesign Programs/ Remediate Students |
| <input type="checkbox"/> | <input type="checkbox"/> | Stop Operations/ Stop Advancement     |
| <input type="checkbox"/> | <input type="checkbox"/> | Refuse Accreditation/ Refuse Diploma  |

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