

**COMMISSION ON TEACHER CREDENTIALING**

1900 Capitol Avenue  
Sacramento, California 95814-4213  
(916) 322-6253  
FAX (916) 445-0800

**OFFICE OF THE EXECUTIVE DIRECTOR**

02-0004

DATE: March 6, 2002

TO: All Individuals and Groups Interested in the Activities of the Commission on Teacher Credentialing

FROM: Sam W. Swofford, Ed.D.  
Executive Director

SUBJECT: CBEST Content Specification Changes and Standard Setting Study

At its November 2001 meeting, the Commission on Teacher Credentialing adopted changes to the content specifications for the California Basic Educational Skills Test (CBEST). The changes were based upon a validity study conducted by Applied Psychological Techniques (APT), an independent contractor.

APT utilized surveys from over 1,300 teachers and nearly 500 administrators as well as input from teacher, administrator, and content advisory groups to determine the reading, writing, and mathematics skills and activities required of beginning educators. The data gathered in the study were compared to the reading, writing, and mathematics skills currently measured by the CBEST. This work resulted in a few additions, deletions, and non-substantive changes to the content specifications eligible for testing and re-weighting of the skill areas contained in the CBEST.

Additionally, APT will be conducting a standard setting study to review the established passing scores for the CBEST.

This correspondence provides information regarding the changes, the standard setting study, and the timeline for implementation of each.

**Changes to the Specifications and Re-weighting**

The revisions to the CBEST include changes in the content of the specifications as well as the weighting of the skill areas tested. Following is an explanation of the changes to each section of the CBEST. The complete list of revised content specifications will be available after March 1, 2002 on the CBEST website at: [www.cbest.nesinc.com](http://www.cbest.nesinc.com)

**Mathematics Section**

For the Mathematics Section, four skills have been added, one skill has been revised in a substantive way, and one skill has been modified in a non-substantive way. In addition, the three categories of skill areas assessed by the Mathematics Section have been re-weighted based upon the findings of the validity study. These changes are detailed below.

Additions

1. Add and subtract with positive and negative numbers.
2. Use the relations *less than*, *greater than*, and *equal to*, and their associated symbols to express a numerical relationship.
3. Identify numbers, formulas, and mathematical expressions that are mathematically equivalent (e.g.,  $2/4 = 1/2$ ,  $1/4 = 25%$ ).
4. Interpret the meaning of standardized test scores (e.g., stanine scores, percentiles) to determine how individuals performed relative to other students.

Substantive Changes

1. Current: Measure length, perimeter, area, and volume.  
New: Measure length and perimeter.

Non-Substantive Changes

1. Current: Use numerical information contained in tables and various kinds of graphs (e.g., bar, line, circle) to solve math problems.  
New: Use numerical information contained in tables, spreadsheets, and various kinds of graphs (e.g., bar, line, circle) to solve math problems.

Re-weighting

The 18 current mathematics skills in the CBEST Mathematics Section specifications are organized into three categories, shown in the chart below. For each, the current weighting (i.e., approximate proportion of items on a test form that measure skills in that category) is indicated. Using validity study survey data about the skills’ importance and frequency of use, and including the four skills added to the specifications, the weightings have been slightly modified as shown.

Category	Current Weighting	New Weighting
Estimation, Measurement, and Statistical Principles	30%	30%
Computation and Problem Solving	45%	35%
Numerical and Graphical Relationships	25%	35%

## Reading Section

For the Reading Section, only a non-substantive editorial change has been made to the content specifications and the categories of skills have been re-weighted based upon the results of the validity study.

### Non-Substantive Change

In the current CBEST specifications for the Reading Section, the terms “written passage” and “reading selection” are both used. Although the two terms have similar meanings, “reading selection” is broader. For this reason and to provide clarity and consistency of terminology, the term “reading selection” is used throughout the revised specifications. In addition, the term “reading selection” is defined in a footnote in the revised specifications to indicate that a reading selection is a book, chapter, paragraph, article, or report.

### Re-weighting

The 37 reading skills in the CBEST Reading Section specifications are organized into two categories, shown in the chart below. For each, the current weighting and new weighting adopted by the Commission are shown.

Category	Current Weighting	New Weighting
Critical Analysis and Evaluation	30%	40%
Comprehension and Research	70%	60%

## Writing Section

There were no changes to the Writing Section because the validity study supports the current specifications.

### **Timeline for Revisions to the CBEST**

Based upon the changes to the CBEST content specifications and re-weighting of skill areas for the Mathematics and Reading Sections of the test, new test items and revised test forms must be developed by National Evaluation Systems (NES), the test administrator. New items for the added and revised skills have been developed by NES and reviewed by the Commission’s Bias Review and Content Advisory Committees. Those items will be field-tested as non-scorable items at upcoming administrations of the CBEST.

To be sure that all candidates who register to take the updated version of the CBEST are aware of the changes, the first administration of that test will not take place until the August 2002 test date. This will provide the opportunity to include notification of these changes in the 2002-2003 CBEST registration bulletin, the CBEST website, the Commission’s website, with CBEST score reports, and other bulletins.

### **Standard Setting Study**

APT has also been contracted by the Commission to conduct a standard setting study for the CBEST. The purpose is to review the minimum level of knowledge and skills that a test taker should demonstrate to achieve a passing score on the test. The study is expected to be completed in the fall of 2002. The results of the study will be presented to the Commission and they may adopt a passing standard that is the same as, or different from the current standard. If a revised standard is adopted, the Commission will also adopt a schedule for implementation of the new standard.

Because the study will be based upon performance data collected for the updated version of the CBEST, there is the possibility that score reporting (including Internet posting of unofficial results) for the August administration may be delayed for a short period pending determination of a passing standard. The schedule for completion of these activities is currently under development and all efforts are being made to avoid such a delay. Further information regarding this process will be made available as the schedule is developed.

### **Further Information/Questions**

This information is also available on the Commission's web-site at <http://www.ctc.ca.gov>

Information regarding the changes to the CBEST content specifications will be available after March 1, 2002 on the CBEST website at <http://www.cbest.nesinc.com>

If you have questions about these changes, please contact Mark McLean at (916) 322-6654 or by e-mail at <[mmclean@ctc.ca.gov](mailto:mmclean@ctc.ca.gov)>.