Multiple unique tests for classroom testing

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In large classrooms, close seating arrangements sometimes force the instructor to distribute different forms of a test to reduce the frequency of "unauthorized information transfers." The high overhead involved in preparing these unique tests can be absorbed by a computer. In addition, editing questions and answer alternatives is relatively simple when the questions are in data files.

The "Randomized-Test Generator" program randomly selects a preset number of questions from the question pool. No question can be repeated unless it is represented more than once in that pool. As each question is selected, its possible answers are also randomized and reordered. This program was designed for hard-copy output in a batch environment.

Input. The question pool is contained in either a disk

or card file in the required format. A title and specification card is also required.

Output. The desired quantity of tests are output with individual identification numbers, followed by duplicate answer sheets that contain answer keys for each individual test. As an option, cards can be punched containing the absolute question and answer numbers of the relabeled questions and answers for each unique test. These cards can be used as input in grading or test-item analysis programs.

Language and Computer. The program is written in standard GA 18/30 FORTRAN IV, which is a proper subset of the FORTRAN that is available on most computers. The program occupies 2.3K of 16-bit words of memory when compiled.

Limitations. Besides arbitrary limits on the number of questions, tests, and answer sheets (which can be modified easily), the program requires that all questions in each question pool contain the same number of alternative answers. Temporary disk space is needed by the program to store the question pool, if it is not already stored on disk.

Availability. A program listing can be obtained without charge from William L. Palya, Department of Psychology, St. Joseph's College, Rensselaer, Indiana 47978.

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