North Carolina A&T State University
Blackboard Faculty Support

Creating Random Blocks Using Question Pools in Blackboard

Question pools incorporate groups of questions that may be a part of a common topic, theme, objective, or chapter. Tests can be designed to randomly pull a specific number of questions from a question pool. One test could essentially pull questions from several smaller pools to ensure that each student is tested equally on a variety of topics. A **random block** is set up to ensure that each student receives a different, but equal set of questions from a specific group (or pool) of questions.

When creating pools, first consider how your pools will be used. Here are two examples of how pools and random blocks can be used to create a test:

Example 1: You have a pool of 100 questions. You would like for Blackboard to randomly pull 25 questions for each student (or each time the test is accessed). When creating the test, you would set up **one** random block that would randomly pull 25 questions from the pool of 100 questions. Therefore, each student would receive a different set of 25 questions.

Example 2: You have 100 total questions that you have divided into two pools of 50 questions each. One pool (first set of 50) focuses on Chapter 1 and the second pool (second set of 50) focuses on Chapter 2. You would like to give the students a 25-question test, but you want to make sure the test includes questions from both Chapters 1 and 2. When creating the test, you would set up one random block that pulls a certain number of questions (ex. 15) from the Chapter 1 pool and you would set up a second random block that would pull a certain number of questions (ex. 10) from the Chapter 2 pool. In this case, all students would receive 25 (15+10) questions, but the questions would be randomly pulled from two pools of questions rather than just one.

Understanding how questions can be randomly pulled from pools will help you understand the number of pools you must create for one test. In Example 1, Blackboard randomly pulled a set of questions from *one* pool of questions. In Example 2, Blackboard randomly pulled two sets of questions from *multiple* pools (for the same test).

Before **Random Blocks** can be added (**Page 5**), **pools** must be created (**Page 2**).

Creating Pools

1. Open a course that you are teaching.

2. Enter the **Control Panel**.
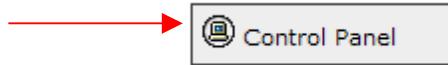
3. Under **Assessment**, click **Pool Manager**.

4. Under the **Pool Manager**, you will be able to:

   A. **Import:** Import a pool of questions from a Publisher's CD or website.
   B. **Add Pool:** Create pools by adding questions individually.
   C. Access pools that have been published from **Respondus** to Blackboard. (See **Page 4** for more information)

A. Import Questions

Some Publishers will provide CDs or websites that have test banks and test generators that can be used by instructors to create pools. Some will even include test banks that have been saved in a format readable by Blackboard. Check the companion CD or website for the course to see if these resources are available. For assistance with this process, contact Blackboard Support (Tracie Lewis: tolewis@ncat.edu or Bessie Nkonge: bessien@ncat.edu).

1. Once you have created and/or saved the package from the Publisher's CD or website (in zipped/compressed format) onto your storage device, click **Import** at the top of the **Pool Manager** page.
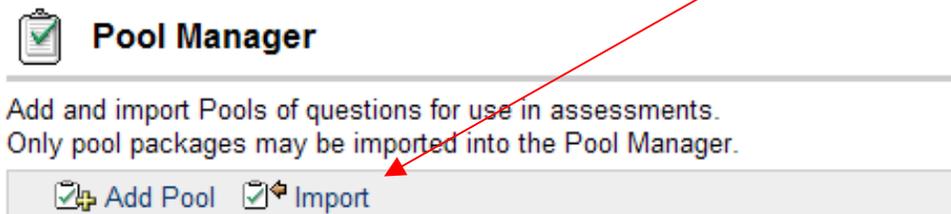
2.   Click **Browse** and attach the zipped/compressed package from your storage device. Click **Submit**.

3.   You will receive a receipt if the package has been imported successfully.

4.   The pool should now be listed on the **Pool Manager** page.

B.   Add Pool: Adding Pool Questions Individually

Manually creating pools allows the instructor to create one large pool or several smaller pools. Using this method, each question must be added one at a time, which could be time-consuming.

1.   To create a pool, click **Add Pool** on the **Pool Manager** page. (Remember that each smaller pool must be created individually.)

2.   On the **Pool Information** page, provide a **Name**, **Description**, and **Instructions** for the pool. Click **Submit**.

3.   On the **Pool Canvas**, click the **Creation Settings** button to adjust settings and add options for the pool. (These settings are *optional*, but must be determined before adding any questions to the pool.)

4.   Add questions to the pool by clicking the **Add** drop-down menu. For more information on adding test questions, see the ***How to Create an Assessment*** handout (www.ncat.edu/~training/blackboard).

5.   Once you have added questions to the pool, click **OK** at the bottom of the **Pool Canvas** page.

6.   The pool should now be listed on the **Pool Manager** page.

C.   Access Pools Published from Respondus to Blackboard

Pools published from Respondus to Blackboard will be automatically listed on the **Pool Manager** page. Creating pools in Respondus allows instructors to add all questions on one Microsoft Word document rather than typing each question into Blackboard one-by-one. For more information on creating pools in Respondus, contact Blackboard Support (Tracie Lewis: tolewis@ncat.edu or Bessie Nkonge: bessien@ncat.edu).

Creating Random Blocks within a Test

Random Blocks allow instructors to use a random selection of questions from a pool to add questions to a test.
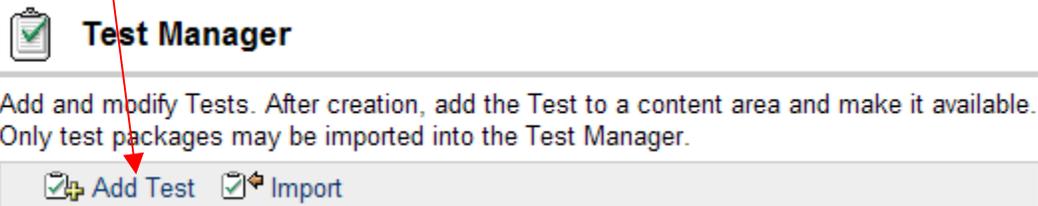
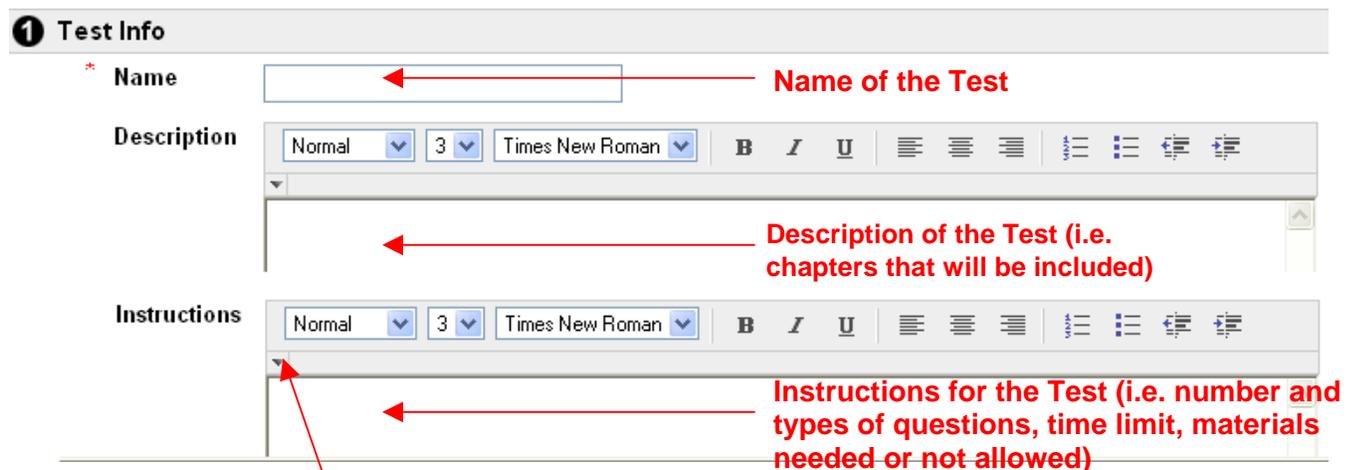1. Enter the **Control Panel**.

2. Under **Assessment**, click **Test Manager**.
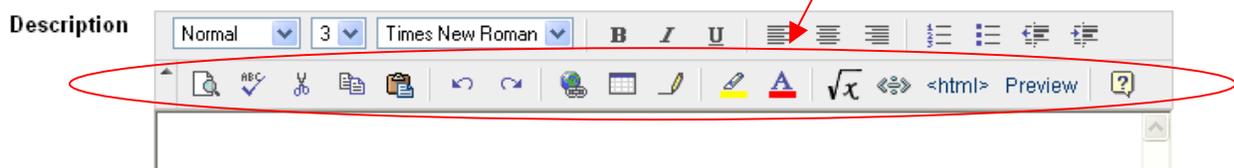

3. Click **Add Test** on the **Test Manager** page.

4. Add a **Name**, **Description**, and **Instructions** for the test.

5. Clicking the **down arrow** in each section will add additional formatting options for the text. After you click the down arrow, the following options will appear:

6. After completing the **Name**, **Description**, and **Instructions** sections, click **Submit**.

7. You will be prompted to add, modify, and remove questions using the **Test Canvas**.

8. Before adding any questions, click the **Creation Settings** button to adjust settings and add options for the test. (These settings are *optional*, but must be determined before adding any questions to the test.) For more information on **Creation Settings**, see the *How to Create an Assessment* handout (www.ncat.edu/~training/blackboard).

9. To set up a **Random Block** designed to randomly select a specific number of questions from a pool, select **Random Block** from the **Add** drop-down menu.
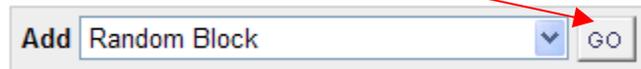
10.   After selecting **Random Block**, click **Go.**

11.   On the **Add/Modify Random Block** page, you will select the pool from which the random block will pull. You can only select from a pool **once** during a single test, so you may need to create several pools for one test. **Example:** Notice that there are three (3) different pools for Chapter 3, each with a set of questions on a different objective. Within one test, separate random blocks could be created for each Chapter 3 pool.

12.   After you select the pool for this random block, you will receive a display that shows the number of questions available for each *type* of question. You can choose to pull from a specific type, or pull from all of the questions. Make your selection by checking the appropriate box.
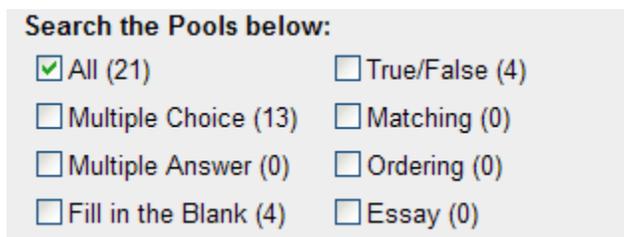
13. After determining which type of questions will be used (or after selecting "All"), indicate the **Number of questions to import**. This number indicates the number of questions that will be randomly selected (from this pool) for each student (or the number that will be randomly selected each time the test link is accessed by a student).

Number of questions to import 5

Points per question 2

Cancel   Import

14. Indicate the **Points per question**. This number indicates the value of each question that will be randomly selected from this pool.

15. Click **Import**.

16. After you click **Import**, the **Random Block** will be created on the **Test Canvas** page. A **Question Number** will identify each random block. (You will not see the individual questions that will be selected with this random block because each student will receive a different set of questions! You will be able to view the questions that each student received *after* the student completes the test.)

Question 1 ▼   **Random Block**   2 points

                 Source   Chapter 3-Objective 1
                 Question types ✓ All   True/False
                                     Multiple Choice   Matching
                                     Either/Or   Multiple Answer
                                     Ordering   Fill in the Blank
                                     Essay   Calculated Numeric
                                     Calculated Formula   File Response
                                     Fill in Multiple Blanks Jumbled Sentence
                                     Hot Spot   Opinion Scale/Likert
                                     Quiz Bowl   Short Answer

       Number of Questions 5

This random block indicates the following conditions:

Points:	Value of each question that will be selected.
Source:	Pool used to create the random block.
Question Types:	Types of questions used to create the random block.
Number of Questions:	Number of questions that will be selected from the pool.

Tips:

***   You can add an **unlimited** number of random blocks to one test. Remember that you must create a pool in the Pool Manager for each random block.

***   You can add individual questions before, after, or between random blocks. Each student would receive the randomly selected questions from the random blocks in addition to any extra questions that you add. By placing questions between random blocks, students may not realize that they are receiving the same "extra" questions.

***   You can change the order of the random blocks (as well as individual questions that have been added) by changing the order of the "**Questions**".

17.   To modify any of the conditions for the random block, click the **Modify** button beside the random block.

18.   To modify or correct any *questions* that are contained in the **Source** (pool), go to the **Pool Manager** and select **Modify** beside the pool name.

When you click **Modify** to revise a pool question, you may receive a **Warning** message if the pool is associated with a test. Any changes made at this point will be applied to the test of any user who has not already taken the test. (Any user who has taken the test will see the changes when viewing the test from the Gradebook or during multiple attempts at the test.)   Click **Next** to continue modifying the pool.

19.   Once you have added all random blocks and any additional questions, scroll to the bottom of the test and click **OK**.

20.   The test will now be located on the list of tests in the Test Manager.

21.   To add (deploy) the test to a content area so students may complete the exam, see the **Adding a Test** handout (www.ncat.edu/~training/blackboard).