Overview
Using categories, topics, levels and key words to create metadata associated with a test question allows an instructor to quickly find the questions they need for a test. Question sets can be used to randomize questions on a test so that each student is presented with a different view of the assessment.
Online Teaching Best Practices

The Institute for Teaching and Learning (TILT) as CSU has developed Best Practices in Online Course Design.

http://tilt.colostate.edu/courses.cfm

We recommend that instructors incorporate these best practices into the development of their RamCT Blackboard courses.

Instructors should also take into consideration different learning styles and differing physical abilities when they prepare their content. Information on how to include these concepts, called Universal Design, is posted at:

http://accessproject.colostate.edu/udl/

Terms To Know

Question Pool
A question pool is a collection of questions that can be stored for repeated use. Pools act like repositories for sets of questions and can be imported and exported for reuse.

Questions in a pool are almost identical to test questions; they can contain feedback, metadata, and all the other elements of a test question, but they do not contain point values.

Question pools themselves are never deployed or made visible to students. However, during test creation, you can find questions to include by searching pools.

Link to Question
Linking to a question means that a link to the original question is added to the test. This is not another instance of the question. Any change made to the original question will be reflected in this link in the new test that has NOT been deployed to students. Once a test is deployed, then the questions in the test are no longer linked to the original question.
Copy Question
A copied question creates a new question that is a copy of the original. Any revisions made to the original question will not be reflected in the copy.

Question Set
A Question Set is a collection of questions added to a test from multiple Tests and Pools. From this set, you specify how many questions to present. The specific questions presented are randomly chosen each time the test is taken. Because Question Sets can draw questions from multiple pools or other tests, we recommend you use this method to create a test which will randomly draw questions to present to students.

Random Block
Random blocks of questions are selected from ONE pool. Because Random Blocks can only draw questions from one question pool, we recommend you always use Question Sets to create randomly selected questions.

Metadata
Metadata describes data and helps you organize content. Include metadata when you create questions to help you retrieve them later. You can add the following types of metadata:

- Category e.g. CSU Knowledge
- Topic e.g. CSU History, CSU Athletics, CSU Colleges
- Levels of Difficulty e.g. Easy, Moderate, Hard
- Keywords e.g. for the question “Who was CSU’s first president?” key words could include president, administration, Elijah Evan Edwards (See, you learned something about CSU!)

Use Question Sets To Select Questions from A Pool(s)
To Add To A Test
A Question Set is a collection of questions that can be selected from multiple Tests and Pools. From this set, you specify how many questions to present to your students. The specific questions presented are randomly chosen for each time the test is taken.

NOTE: When you add questions to a test using the Question Set feature, each question is initially linked. Therefore, if you change the original question, the revised version of the question will appear. After the test with the linked question is deployed, the questions will no longer reflect revisions made to the original.
For each question set, you can specify:

- The pools and tests from which it will be drawn
- The type of questions to be drawn
- The number of questions to be drawn

Create A Question Set

1. Create a test
   or access a test’s canvas page. (Click the drop down menu next to the test’s name and select Edit the Test.)

2. On the Test Canvas page, click on the Reuse Question drop down menu.

3. Select Create Question Set.

4. On the Create Question set page, search for questions using the Browse Criteria options.

5. Place a check next to the questions you would like to include in the test.
   - You can select all questions by checking the box at the top of the row

6. Click Submit.
The Question Set will be added to the test.

Select The Number Of Questions in A Question Set To Randomly Display To Students

1. Click on the Number of Question to Display box.

2. Enter the number of questions from the question set to display to students.

3. Click Submit.

In this example, a student will see 6 randomly selected questions from a Question Set that contains 12 questions.

Change the Point Values For Questions In A Question Set

1. Under Select by type select the Question Set.

2. Type the point values for the questions in the question set.

3. Click Update.

In this example, we changed the point value for each of the questions in the question set from the default of 10 points to 15 points.
Find Questions Easily Using Metadata

Metadata describes data and helps you organize content. Include metadata when you create questions to help you retrieve them later. You can add the following types of metadata:

- **Category** e.g. CSU Knowledge
- **Topic** e.g. CSU History, CSU Athletics, CSU Colleges
- **Levels of Difficulty** e.g. Easy, Moderate, Hard
- **Keywords** e.g. for the question “Who was CSU’s first president?” key words could include president, administration, Elijah Evan Edwards (See, you learned something about CSU!)

Adding metadata to questions can help you find questions later to be reused in additional tests or to create random blocks for tests. For example, if the classification scheme above was used, you can:

- Create a test containing moderately difficult questions about CSU.
- Create a test containing questions about CSU Colleges.
- Add bonus questions to a test by searching for questions assigned a hard level of difficulty

**NOTE:** The more specific the metadata assigned to a question, the easier it will be to find the question later. You do not have to add all metadata items (category, topic, etc.) to a question. You do not have to add any metadata to a question if you don’t want to.

**Adding Metadata To Questions**

1. On the Create Question drop-down list, select Multiple Choice.

2. On the Create/Edit Multiple Choice Question page, type the question and answers.

3. Under Categories and Keywords, click Add next to Levels of Difficulty.
4. Type a value in Add Tag. E.g. Hard. To add more values, repeat this step.

5. Click OK. The value is added to Levels of Difficulty.

6. Click Submit to save the question.

**Auto Regrade a Test**

After students submit attempts to a test, your ability to modify a test is limited. You cannot add a question or modify the number of questions in a question set. However, there are a number of steps you can take to auto regrade a test.

**These changes WILL trigger an Auto Regrade of a Test:**
- Change a question’s Correct Answer.
- Change the Point Value of a question.
- Delete a question.
- Make a question Full credit.
- Make a question Extra credit.

This will affect all previously submitted test attempts. All affected submissions are then regarded.

**These changes WILL NOT trigger an Auto Regrade of a Test**
- Edit a question or answer text.
- Reorder questions.
**Change Correct Answer**

1. Use the drop down menu next to the test that you would like to regrade and select Edit Test.

2. Select the question whose answer you would like to change and select Edit.

3. At the top of the page click Submit and Update Attempts.

**Change Point Value**

1. Use the drop down menu next to the test that you would like to regrade and select Edit Test.

2. Click on the points box.
3. In the **Update Points** box type the **new point value**.

4. **Click Submit and Regrade.**

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**Delete a Question**

1. Use the **drop down menu** next to the test that you would like to regrade and **select Edit Test**.

2. Place a **check next to the question** or questions you would like to delete.

3. At the top of the test page **click Delete and Regrade**.

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**Full Credit**

This will regrade current and future submissions and give each student the total number of points possible for this question.

1. Use the **drop down menu** next to the test that you would like to regrade and **select Edit Test**.

2. **Click on the points box**.
3. Place a check in the **Full Credit** box.

4. **Click Submit and Regrade.**

**Extra Credit**

Will add the points earned on the extra credit question to the total points earned on the test.

This will not deduct points from students who do not get the extra credit question wrong.

1. Use the **drop down menu** next to the test that you would like to regrade and **select Edit Test.**

2. **Click** on the **points** box.

3. Place a check in the **Extra Credit** box.

4. **Click Submit and Regrade.**
Clear/Reset A Student Test Attempt

Occasionally, an instructor may need to clear a student’s test attempt in RamCT Blackboard and allow them to retake the test. This could be due to a technology concern with the student’s computer.

1. Under the Grade Center click on Full Grade Center.

2. Locate the student and the test attempt you wish to reset.

3. Click on the drop down menu next to the score the student received or the test in progress icon and select View Grade Details.

4. In the bottom right corner, click on Clear Attempt.

5. You will see the delete attempt confirmation page.

6. Click OK.
Statistics

RamCT Blackboard calculates statistics based on an overall test and statistics per question in a test.

**Test Statistics**

In the Grade Center, click on the drop down menu next to the name of a test and select Column Statistics.

Note the statistics that you can view for a test.

<table>
<thead>
<tr>
<th>Column Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column</td>
</tr>
<tr>
<td>Points Possible</td>
</tr>
<tr>
<td>Description</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Status Distribution</th>
<th>Grade Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>45</td>
<td>greater than 100: 0</td>
</tr>
<tr>
<td>Minimum Value</td>
<td>20.00</td>
<td>90 - 100: 1</td>
</tr>
<tr>
<td>Maximum Value</td>
<td>38.00</td>
<td>80 - 89: 0</td>
</tr>
<tr>
<td>Range</td>
<td>18.00</td>
<td>70 - 79: 0</td>
</tr>
<tr>
<td>Average</td>
<td>26.63</td>
<td>60 - 69: 1</td>
</tr>
<tr>
<td>Median</td>
<td>24.25</td>
<td>50 - 59: 2</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>6.05</td>
<td>40 - 49: 0</td>
</tr>
<tr>
<td>Variance</td>
<td>46.92</td>
<td>30 - 39: 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 - 29: 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 - 19: 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0 - 9: 0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>less than 0: 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Question Statistics</th>
</tr>
</thead>
</table>

In the Grade Center, click on the drop down menu next to the name of a test and select Attempts Statistics.

<table>
<thead>
<tr>
<th>Name</th>
<th>Blackboard Learn Test Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>26.625</td>
</tr>
<tr>
<td>Attempts</td>
<td>10 (Total of 11 attempts for this assessment)</td>
</tr>
<tr>
<td>Graded Attempts</td>
<td>4</td>
</tr>
<tr>
<td>Attempts that Need Grading</td>
<td>6</td>
</tr>
<tr>
<td>Instructions</td>
<td>Answer every question correctly!</td>
</tr>
<tr>
<td>Alignments</td>
<td></td>
</tr>
</tbody>
</table>
Note that on this page you can view the statistics for each question on a test.

**Export/Import Question Pools**

Instructors can export question pools they have created in one course and import them into another RamCT Blackboard course.

**Export A Question Pool**

1. Under Course Tools, click on Tests Surveys and Pools.

2. Click on Pools.
3. In the **Pools** area, *click* on the **drop down menu** next to the **name of a question pool**.

4. *Select Export*.

5. *Select Save File*.

6. *Click OK*.

   The file will be saved in a .zip format.

7. *Save* the **exported question pool file** to your **local computer**.

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**Import A Question Pool**

1. Under **Course Tools**, *click* on **Tests Surveys and Pools**.

2. *Click on Pools*.

3. *Click Import Pool*.

4. *Browse* to the **location** where you **saved** an **exported question pool**.

5. *Click* on the **saved exported pool file** and then *click Open*.

6. *Click Submit*.

   You should see a “Pool Import Complete” message.

   The imported question should now appear under the Pools area in your course.
RamCT Blackboard Help / Support

RamCT Blackboard Help Web Site
http://help.ramct.colostate.edu

Blackboard’s On Demand Learning Center
http://ondemand.blackboard.com/

College RamCT Coordinators
http://help.ramct.colostate.edu/ramctsupport_faculty.aspx

Central RamCT Support
ramctsupport@colostate.edu

Appendix I: RamCT Blackboard Advanced Testing Exercises

Login with your Training Instructor account to your RamCT Blackboard training course.

1. Import the Question Set Example question pool into your RamCT Learn training course. (p. 10)

2. Create a new question pool called Questions plus your last name.
   E.g. Questions Smith

3. In the new Test question pool, create one of each of the questions listed below and include Metadata information. (See the Test Basics handout, Appendix II for question examples).
-Jumbled sentence, multiple fill in the blank, multiple answer

4. Create a Test called Randomized Test.

5. Add a Question Set to the Randomized Test. (p. 3 – 5)
   - Include questions from the Question Set Example and the Test pools.
   - Assign point values to the questions.
   - Determine the number of questions to include in the question set.

6. **Login with your Student Training Account** to your training course.

7. Take the Randomized Test you created.
   - Did the correct number of random questions display to you as a student?

   View the statistics for a test column in your Grade Center. (p. 8 – 9)
   - By Column
   - By Attempts

8. Export the Test(your last name) question pool you created and save it to the local computer. (p. 10)