Contents
Recent Updates ......................................................................................................................... 4

TYPOGRAPHIC CONVENTIONS ............................................................................................. 5
SARAS PROGRAM NAVIGATION ............................................................................................ 6
MANAGE REPOSITORY ........................................................................................................... 6
MANAGE ITEM ...................................................................................................................... 7
BASIC ITEM CREATION ......................................................................................................... 7

ITEM TYPES.......................................................................................................................... 13
Connect the Points HTML5 .................................................................................................... 13
Entry List Static .................................................................................................................... 15
Essay ..................................................................................................................................... 16
Fill In The Blank Drag And Drop .......................................................................................... 18
Fill In The Blank Dynamic ..................................................................................................... 20
Fill In The Blank Text ............................................................................................................ 22
Horizontal Sequencing .......................................................................................................... 24
Hotspot Multiple Choice HTML5 ............................................................................................ 25
Hotspot Multiple Response HTML5 ....................................................................................... 27
Image Labeling ...................................................................................................................... 29
Image Labeling Entry ............................................................................................................ 33
Likert Scale .......................................................................................................................... 37
Matching ............................................................................................................................... 38
Matching Drag And Drop ...................................................................................................... 39
Matrix ..................................................................................................................................... 41
Multiple Choice Dynamic ...................................................................................................... 43
Multiple Response Dynamic .................................................................................................. 46
Multiple Choice Static ........................................................................................................... 49
Multiple Response Static ...................................................................................................... 50
Numeric .................................................................................................................................. 52
Pull Down List ....................................................................................................................... 54
Ranking ................................................................................................................................... 56
Select a Blank .......................................................................................................................... 58
Slider HTML5 .......................................................................................................................... 60
Text Match ............................................................................................................................. 61
True/False ........................................................................................................62
Vertical Sequencing ........................................................................................63
Write a Program ...............................................................................................65
MANAGE BLUEPRINT ..................................................................................67
MANAGE TEST .............................................................................................69
MANAGE GRADE SCHEMES ........................................................................76
MANAGE DIGITAL ASSETS ..........................................................................76
MANAGE ESSAY EVALUATION ......................................................................77
SCHEDULE .....................................................................................................79
REPORTS .........................................................................................................82
  Performance Report .....................................................................................82
  IRT Reports ................................................................................................83
  Item Information Function (IIF) .................................................................83
  Test Information Function (TIF) ..................................................................84
  Item Characteristics Curve (ICC) ...............................................................85
INDEX ...........................................................................................................86
GLOSSARY .....................................................................................................88
Recent Updates
**TYPOGRAPHIC CONVENTIONS**

The following are Typographic Conventions used in this User Manual.

<table>
<thead>
<tr>
<th>Words in</th>
<th>Represent</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Italics underlined</em></td>
<td>Option buttons displayed on the screen.</td>
</tr>
<tr>
<td><strong>Bold</strong></td>
<td>Sub-titles.</td>
</tr>
<tr>
<td><strong>BOLD CAPS UNDERLINED</strong></td>
<td>Hyperlinks, titles displayed on the screen.</td>
</tr>
<tr>
<td><strong>Highlighted:</strong></td>
<td>Note: Brief information about a particular topic.</td>
</tr>
<tr>
<td><strong>Underlined</strong></td>
<td>Titles</td>
</tr>
<tr>
<td><strong>BOLD CAPS</strong></td>
<td>Main Section Titles</td>
</tr>
<tr>
<td><em>Italics</em></td>
<td>Options and definitions</td>
</tr>
<tr>
<td><strong>Bold Underlined</strong></td>
<td>Item Types</td>
</tr>
</tbody>
</table>
SARAS PROGRAM NAVIGATION

HOME

The Dashboard displays a summary of scheduled test activities.

CONTENT MANAGEMENT

Under Content Management, there are titles Manage Repository, Manage Item, Manage Blueprint, Manage Test, Manage Grade Scheme, Manage Digital Asset, and Manage Essay Evaluation. These options will help create and manage tests.

MANAGE REPOSITORY

Manage Repository is the first feature under Content Management and where the filing structure in SARAS is organized. Under Manage Repository, there are folders such as Digital Assets, Test Template, Items and Test.
MANAGE ITEM
The second feature under Content Management is Manage Item. This is where an Item can be created. The Item types have been divided into subject categories. Below is an image showing the different Item Types in Manage Item.

To access the Item types, follow the steps below:

1. Go to Manage Item and select the folder to create the item in from the list on the left.
2. Click on the Add button which is on the upper right corner of the page.
3. Choose which Item Type best applies to the question.

BASIC ITEM CREATION
There are 42 different Item Types that can be created in SARAS. These Item types are used to create different types of questions to achieve test objectives. The different Item Types will be described under the Item Type section of the manual beginning on page 10. In addition, Item Types in SARAS contain similar parts among them, these similarities will be described below:

Passage details
Some question styles require a passage for accurate understanding of what the question is asking for. When in the Item Type, Click on the “+” sign to the right of Passage details and click on Add passage to create a Passage. The image below shows the location of Add passage.

When Add passage has been clicked, the image below is seen.

Fill out the Passage code and Passage label fields which are both required, then fill out the Passage text and click Save. The Passage will now be applied.

**Item details**

Item details contains details about the test. It includes Language Select, Item code, Item label, and Item stem. All of the Item details apply to all Item Types in SARAS.

Under Item stem, type in the item question or instruction. The Ribbon features in the Item stem makes the creation of different kinds of Item questions possible. These include addition of images, equations and symbols to the questions.
The list below contains mathematical functions supported by SARAS.

<table>
<thead>
<tr>
<th>NAME</th>
<th>DESCRIPTION</th>
<th>USAGE</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abs</td>
<td>Returns the absolute value of a specified number.</td>
<td>Abs(-1)</td>
<td>1M</td>
</tr>
<tr>
<td>Acos</td>
<td>Returns the angle whose cosine is the specified number.</td>
<td>Acos(1)</td>
<td>0d</td>
</tr>
<tr>
<td>Asin</td>
<td>Returns the angle whose sine is the specified number.</td>
<td>Asin(0)</td>
<td>0d</td>
</tr>
<tr>
<td>Atan</td>
<td>Returns the angle whose tangent is the specified number.</td>
<td>Atan(0)</td>
<td>0d</td>
</tr>
<tr>
<td>Ceiling</td>
<td>Returns the smallest integer greater than or equal to the specified number.</td>
<td>Ceiling(1.5)</td>
<td>2d</td>
</tr>
<tr>
<td>Cos</td>
<td>Returns the cosine of the specified angle.</td>
<td>Cos(0)</td>
<td>1d</td>
</tr>
<tr>
<td>Exp</td>
<td>Returns $e$ raised to the specified power.</td>
<td>Exp(0)</td>
<td>1d</td>
</tr>
<tr>
<td>Floor</td>
<td>Returns the largest integer less than or equal to the specified number.</td>
<td>Floor(1.5)</td>
<td>1d</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
<td>Example</td>
<td>Result</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>IEEERemainder</td>
<td>Returns the remainder resulting from the division of a specified number by another specified number.</td>
<td>IEEERemainder(3, 2)</td>
<td>-1d</td>
</tr>
<tr>
<td>Log</td>
<td>Returns the logarithm of a specified number.</td>
<td>Log(1, 10)</td>
<td>0d</td>
</tr>
<tr>
<td>Log10</td>
<td>Returns the base 10 logarithm of a specified number.</td>
<td>Log10(1)</td>
<td>0d</td>
</tr>
<tr>
<td>Max</td>
<td>Returns the larger of two specified numbers.</td>
<td>Max(1, 2)</td>
<td>2</td>
</tr>
<tr>
<td>Min</td>
<td>Returns the smaller of two numbers.</td>
<td>Min(1, 2)</td>
<td>1</td>
</tr>
<tr>
<td>Pow</td>
<td>Returns a specified number raised to the specified power.</td>
<td>Pow(3, 2)</td>
<td>9d</td>
</tr>
<tr>
<td>Round</td>
<td>Rounds a value to the nearest integer or specified number of decimal places. The mid number behavior can be changed by using Evaluate Option. Round Away From Zero during construction of the Expression object.</td>
<td>Round(3.222, 2)</td>
<td>3.22d</td>
</tr>
<tr>
<td>Sign</td>
<td>Returns a value indicating the sign of a number.</td>
<td>Sign(-10)</td>
<td>-1</td>
</tr>
<tr>
<td>Sin</td>
<td>Returns the sine of the specified angle.</td>
<td>Sin(0)</td>
<td>0d</td>
</tr>
<tr>
<td>Sqrt</td>
<td>Returns the square root of a specified number.</td>
<td>Sqrt(4)</td>
<td>2d</td>
</tr>
<tr>
<td>Tan</td>
<td>Returns the tangent of the specified angle.</td>
<td>Tan(0)</td>
<td>0d</td>
</tr>
<tr>
<td>Truncate</td>
<td>Calculates the integral part of a number.</td>
<td>Truncate(1.7)</td>
<td>1</td>
</tr>
</tbody>
</table>
**Item Preferences**

Item Preferences contains the *Complexity, Classification, Hide Item, Secure Item and Time required to answer* options.

The *Complexity option* sets the difficulty level for the item being created. This feature is required and is one of the reasons *Blueprint* is successful in test creation.

The *Classification option* puts the item into a category. These categories include *Knowledge, Comprehension, Application, Analysis, Synthesis, Evaluation, and Memory*. This feature is required and is another reason *Blueprint* is successful in test creation.

The *Hide Item option* hides the Item from all other users.

The *Secure Item option* denies editing access of the Item to all other users.

The *Time required to answer* option sets the time limit of an Item, requiring students to submit their answer(s) within the allotted time. Setting this to 00 Min 00 Sec sets no time restriction on the Item, though if there is a time restriction on the Test which the created Item goes to, the Test’s time restriction will continue to be enforced.

The image below shows the Item preferences.

![Item preferences](image)

**Item hints and Custom metadata**

The *Item hint* gives hints for the Item question. The *Custom metadata* is an administration feature which customizes the question’s categories as needed. The image below gives an example.
Item Preview

To preview an Item, go to the **MANAGE ITEM** screen, find the item in the selected folder, click on the three parallel horizontal bars to the right of the item and click *Preview*. 
ITEM TYPES
Connect the Points HTML5

Preview

Below is an example of what this Item Type can look like when completed.

![Image of Europe map with points marked]

This Item type deals with the connection of points to achieve the correct answer. It can be used in a variety of classes. To access this Item type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Fill out the Item stem with the desired question or statement

From the image, connect the points for your trip to Europe.

2. Click on Browse image library to access files already stored in Digital Assets. Select the preferred image and resize it if needed.
3. Click on **Draw Points** to place points on the image. Points can be cleared by clicking on the **Clear all** button.

4. Click on the **Draw Lines** button to connect the correct points on the image. Notice that the correct route below is from \( P1 \) to \( P2 \) to \( P3 \) which is from Utah to Georgia to Virginia, and \( P4 \) to \( P5 \) to \( P6 \) is wrong. The Lines were drawn by clicking \( P1 \) then \( P2 \) and \( P2 \) then \( P3 \) and so on.

5. When the lines are connected, click on the **Click here to generate choices** button which will create **Choice details** as the image below shows.

6. Input scores for the correct and incorrect answers.

7. Click the **Save** button to finish.
Entry List Static

Preview

Below is an example of what this Item Type can look like when completed.

With this Item Type, questions that require the student to enter the correct answers can be created. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Fill out the Item stem with the desired question.
2. Enter choices, correct answers and correct scores under Choice details. More choices can be added if needed by clicking on the Add question stem button.

3. Click on Save to finish.
Essay

Preview

Below is an example of what this Item Type can look like when completed.

```
Essay

Item label: Essay

Why do you want to be a Latter Day Saint?
```

With this Item Type, comprehension and essay questions can be given and answered. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Fill out the Item stem with a desired essay topic.
2. Under the Evaluation settings, choose a scoring type. Either a total numeric score or a rubric score can be given. Clicking on the Rubric score will help create or provide choices from a list provided.
3. The Response evaluation tools and Evaluation guidelines are used to provide feedback and set standards for the evaluation respectively.
4. The Student response area settings has options Input language, Essay title space, and Number of words. It is required to input a Lower limit and Upper limit which are minimum number of words and maximum number of words respectively.

5. Click on Save to finish.
Fill In The Blank Drag And Drop

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type tests the students’ abilities in vocabulary, comprehension, composition, and word and sentence structure knowledge. It allows the student to drag and drop the correct answers to fill in the blank area. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Enter Item text in the Item stem, and then define the blanks. To define a blank, type in “{blank}” in place of the word(s) the blank(s) are to appear in the question.
2. Click on Create blanks to create choices for the defined blanks and give scores for them. To add distractors, click the Add Distractor button.
3. Click Save to continue.
Answer the question by dragging and dropping the correct answer into the blanks.
The **blank 1** of Jesus **blank 2** of Latter Day **blank 3**.

<table>
<thead>
<tr>
<th>Blank ID</th>
<th>Choice</th>
<th>Correct score</th>
<th>Wrong score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank1</td>
<td>Church</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Blank2</td>
<td>Christ</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Blank3</td>
<td>Saints</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Additional distractors

[Add distractor]
**Fill In The Blank Dynamic**

**Preview**

Below is an example of what this Item Type can look like when completed.

![Fill in the blank dynamic preview](image)

This Item Type helps you test the students’ mathematical abilities. It has the ability to create virtually limitless inputs and outputs of a certain type of question based on your set criteria. These criteria include:

a. Operand  
b. Variable  
c. Equal  
d. Min and max  
e. Choice Expression

To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. Enter Item text in the *Item Stem* using variables.
2. Click on the *Get text* button. This will transfer the question to the box below the *Get Text* button.

3. Highlight an operand and click on the *Set operand* button. Do this for each operand. 
   
   An operand is the object of a mathematical operation, a quantity on which an operation is performed. Already set operand cannot be deleted. If the removal of an operand is required, click on the *Reset operand* button. This will reset the operand details.

4. Depending on what is required, values can be put in the *Equal* boxes. Doing that means every student will get to have the same question. Or values can be put in the *min* and *max* boxes. Doing that means every student will have randomly selected numeric values for the same question.

5. To create a choice text, highlight the operand required to be blank and click on the *Create blank* button.

6. Enter in the choice expression using the variables given under operand details.

7. Input score for correct answer and click on the *Verify expression* button.

8. Click on *Save* to continue.
Fill In The Blank Text

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type tests the students’ abilities in vocabulary, comprehension, composition, and word and sentence structure knowledge. The students get to answer the questions by typing the answer(s) into the blanks. To access this Item type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Enter Item text in the Item stem, and then define the blanks. To define a blank, type “{blank}” in place of the word(s) the blank(s) should appear in the question.
2. Click on Create blanks to create choices for the defined blanks and then give scores for them, then give Blank length for the word(s).
3. Click Save to finish.
### Choice details

Rich text editor will open on click of choice and feedback

<table>
<thead>
<tr>
<th>Select</th>
<th>BlankID</th>
<th>Answer</th>
<th>Alternate answer</th>
<th>Correct score</th>
<th>Wrong score</th>
<th>Blank length</th>
<th>Case sensitive</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Blank1</td>
<td>church</td>
<td>*</td>
<td>1</td>
<td>*</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blank2</td>
<td>Christ</td>
<td>*</td>
<td>1</td>
<td>*</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blank3</td>
<td>Day</td>
<td>*</td>
<td>1</td>
<td>*</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>
**Horizontal Sequencing**

**Preview**

Below is an example of what this Item Type can look like when completed.

![Example of Horizontal Sequencing Item Type](image)

This Item Type tests the knowledge of students by presenting them with a question from which they will need to re-order sentences or ideas in a correct order or sequence. To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. Enter instructions in the *Item stem*.
2. Enter text in *Letter/Word* boxes below the *Item stem* and then click *Save*. To add more *Letter/Word boxes*, click on the *Add* button.
3. Under *Choice details*, provide correct score and wrong score.
4. Click *Save* to continue.
Hotspot Multiple Choice HTML5

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with an image in which they will need to identify the hotspots. Note that this Item Type can only have one correct answer. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Enter instructions in the Item stem.
2. Browse for the DIGITAL ASSET by clicking the Browse Image Library button.
3. On the image, click and drag to create hotspots over areas of interest.
4. Click on the Click here to generate choices button.
5. Assign scores for correct Item points.
6. Click on Save to finish.
Hotspot Multiple Response HTML5

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with an image in which they will need to label on the given image, a listed option(s). To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Enter the instructions/question(s) in the Item stem.

2. Browse the image by clicking the Browse image library button
3. On the image, click and drag to create hotspots over areas of interest.

4. Click on the Click here to generate choices button and assign scores to correct answers.

5. Click on Save to finish.
**Image Labeling**

**Preview**

Below is an example of what this Item Type can look like when completed.

Image labeling presents students with images in which they will need to label parts of the images with the correct names. To access this Item Type, see **MANAGE ITEM** and **BASIC ITEM CREATION**, and then follow the instructions below.

1. Enter instructions in the *Item stem*.

2. Browse the image by clicking the *Browse image library* button.
3. Click on the *Click here to generate choices* button.

4. Enter in choices to the corresponding Item points and assign scores for correct and incorrect answers.

5. Click on *Save* to continue.
**Image Labeling Drag And Drop**

**Preview**

Below is an example of what this Item Type can look like when completed.

This Item type presents students with questions that will require them to label images using the drag and drop method. To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. Enter instructions in the *Item stem*.

2. Browse the image by clicking the *Browse image library* button.
3. Click on the *Click here to generate choices* button.

4. Enter in choices to the correct Item points and give scores for correct and incorrect answers.

5. Click on *Save* to finish.
Image Labeling Entry

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type requires students to enter in the names of specified parts of an image. It is a method to test the knowledge and vocabulary of students. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Enter instructions in the Item stem.
2. Browse the image by clicking the *Browse image library* button.

3. Select the parts to be labeled by clicking on it on the image.

4. Click on the *Click here to generate choices* button.

5. To create more choices, enter in choices in the Choice box and click the *Add* button to create the drop down menu. In the drop down menu, be sure to click on the correct answer. Apply this to all item points.

6. Click on *Save* to finish.
Image Labeling Selection

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type requires students to choose the correct answer to a specified part on an image from a drop down menu. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Enter instructions in the Item stem.
2. Select the **previously** saved image from **DIGITAL ASSETS** folder by clicking the *Browse image library* button. **Note** that the image needs to be in the folder *before* the question is made.

3. Click on the *Click here to generate choices* button.

4. To create choices, enter choices in the *Choice box* and click the *Add* button to create the drop down menu. In the drop down menu, click on the correct answer and click on the *Set Correct* button. Apply this to all item points.

5. Click the *Save* button to finish.
**Likert Scale**

**Preview**

Below is an example of what this Item Type can look like when completed.

![Likert Scale Preview](image)

This Item Type allows students to choose an option from the semantic differentials such as strongly agree or strongly disagree. To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. Enter a statement in the *Item stem*.

![Likert Scale Item Stem](image)

2. Select the number of choices and the choice presentation layout.
3. Enter in the choice texts and scores. Other choice texts can be added by clicking the *Add* button.
4. Click on *Save* to finish.
Matching

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with items which have sub-items accompanied with a drop down box from which they have to choose or match with the correct answers. To access this Item Type, see **MANAGE ITEM** and **BASIC ITEM CREATION**, and then follow the instructions below.

1. Fill in the *Item stem* with instructions or a question.
2. Fill in the *Text* box with choice texts that will be made visible to the student.
3. Fill in the *Match Text* box with choice options. These will go into the drop down menu.
4. Click on the *Add* button to add more choices if needed.

5. Click on *Save* to finish
Matching Drag And Drop

Preview

Below is an example of what this Item Type can look like when completed.

![Matching Drag And Drop](image)

This Item Type presents students with questions in which they will have to match the correct options to the correct choices by dragging and dropping the options. To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. Fill in the *Item stem* with instructions or questions.
2. Under the *Choice* box, enter in choice texts. These remain stationary in the actual question.
3. Under the *Option* box, enter in option texts. These are the options that can be dragged and dropped to applicable places in the actual question.
4. Select the correct option for each choice, and then assign a score.
5. Click on **Save** to finish.
**Matrix**

**Preview**

Below is an example of what this Item Type can look like when completed.

```
Item label: Matrix
Choose the correct capital of the following states
Idaho  [ ] Rexburg  [ ] Boise
Utah  [ ] Salt Lake  [ ] Salt city
Submit
```

This Item Type presents students with an Item followed by Sub-Items. Note that each sub-item contains multiple options from which the students have to choose the correct option as the answer. To access this Item Type, see **MANAGE ITEM** and **BASIC ITEM CREATION**, and then follow the instructions below.

1. Fill in the *Item stem* with a question.
2. Enter in the number of choices and the number of options for the question, and then click on the *Generate* button.

3. Enter in the choice texts and options.
4. Assign scores for correct answers.
5. Click on *Save* to finish.
<table>
<thead>
<tr>
<th>Select</th>
<th>Choice text</th>
<th>Minimum selection</th>
<th>Maximum selection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Idaho</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option</th>
<th>Score</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rexburg</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Boise</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Select</th>
<th>Choice text</th>
<th>Minimum selection</th>
<th>Maximum selection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Utah</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option</th>
<th>Score</th>
<th>Feedback</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salt Lake</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Salt city</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

- Shuffle choices
**Multiple Choice Dynamic**

**Preview**

Below is an example of what this Item Type can look like when completed.

```plaintext
if $1728\text{is invested at a rate of} 7\% \text{for} 3.4 \text{yrs, find the simple interest earned}$

- $411.26$
- $1735.03$
- $1734.97$
- $41126.43$

Submit
```

This Multiple Choice Item Type has the ability to create virtually limitless inputs and outputs of a certain type of question based on the set criteria. These criteria include:

a. **Operand**: *This is an object of a mathematical operation or a quantity on which an operation is performed. These could be numbers such as 3, 5, 4 etc.*

b. **Variable**: *This is an alphabetic character or symbol; usually a letter like x or y representing a number we don't know yet.*

c. **Equal (=)**: *This is a symbol that shows that what is on the left of the sign is equal in amount or value to what is on the right of the sign.*

d. **Min and max**: *These are absolute minimum and maximum values of the function in its domain.*

e. **Expression**: *This is a phrase that combines numbers and/or variables using mathematical operations.*

To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. In the **Item stem**, enter in the question using symbols as appropriate to identify operands.
2. Click on the **Get text** button. This will transfer the question to the box below the **Get text** button.
3. Highlight an operand and click on the **Set operand** button. Do this for each operand. **Note:** An *operand* is the object of a mathematical operation, a quantity on which an operation is performed. Once set, operands cannot be deleted. To remove an operand, click on the **Reset operand** button. This will reset the operand details.

4. By entering in values to the equal boxes, every student will get to have the same question. Assign a *min* and *max* value. This will ensure that every student will have randomly selected numeric values for the same question.
5. Under the choice details, enter in choice expressions with the correct one given the score. Note that choice expressions are mostly formulas that are created using the Variables given in the Operand details.

6. Choices can be shuffled and choice presentation can be set as horizontal or vertical.

7. Click on Save to finish.
Multiple Response Dynamic

Preview

Below is an example of what this Item Type can look like when completed.

If $633$ is invested at a rate of $9\%$ for $1.29$ yrs, find the simple interest earned

- 642.01
- 7348.14
- 73.49

Submit

This Multiple Response Item Type has the ability to create virtually limitless inputs and outputs of a certain type of question based on the set criteria. These criteria include:

1. **Operand**: This is an object of a mathematical operation or a quantity on which an operation is performed. These could be numbers such as 3, 5, 4 etc.
2. **Variable**: This is an alphabetic character or symbol; usually a letter like $x$ or $y$ representing a number we don't know yet.
3. **Equal ($=$)**: This is a symbol that shows that what is on the left of the sign is equal in amount or value to what is on the right of the sign.
4. **Min and max**: These are absolute minimum and maximum values of the function in its domain.
5. **Expression**: This is a phrase that combines numbers and/or variables using mathematical operations.

Note that this Item Type is similar to the Multiple Choice Dynamic. The only difference is that with Multiple Response Dynamic, multiple answers can be chosen.

To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

8. In the Item stem, enter in the question using symbols as appropriate to identify operands.
9. Click on the Get text button. This will transfer the question to the box below the Get text button.
10. Highlight an operand and click on the Set operand button. Do this for each operand. **Note:** An operand is the object of a mathematical operation, a quantity on which an operation is performed. Once set, operands cannot be deleted. To remove an operand, click on the Reset operand button. This will reset the operand details.

11. By entering in values to the equal boxes, every student will get to have the same question. Assign a min and max value. This will ensure that every student will have randomly selected numeric values for the same question.
12. Under the choice details, enter in choice expressions with the correct one given the score. **Note** that choice expressions are mostly formulas that are created using the Variables given in the Operand details.

13. Choices can be shuffled and choice presentation can be set as horizontal or vertical.

14. Click on **Save** to finish.
Multiple Choice Static

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with a question or item followed by a list of possible answers to choose the correct answer from. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Fill in the Item stem with a question.
2. Choose the object type preferred and enter in the number of choices and options for the question.
3. Assign a score for the correct answer.
4. Click on Save to continue.
Multiple Response Static

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with questions in which they have to select all the correct answers. This means that there will be multiple correct answers given for them to select. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Fill in the Item stem with a question.

2. In choice details, enter in the text in the Choice boxes.

3. Assign minimum and maximum choices to be selected.

Note that if this item is scored on the ‘choice level’ as indicated in the item stem, partial credit can be assigned.
4. Assign scores for correct answers.
5. Click **Save** to finish.
**Numeric**

**Preview**

Below is an example of what this Item Type can look like when completed.

![Example of Numeric Item Type](numeric_example.png)

This Item Type presents students with questions in which they will type out the answer. Only numeric answers can be given; so, letters cannot be used. This Item Type can be used for *Mathematics*, *Physics*, *History* and even more classes. To access this Item type, see **MANAGE ITEM** and **BASIC ITEM CREATION**, and then follow the instructions below.

1. Fill in the *Item stem* with the question.

   ![Item Stem](item_stem.png)

2. Assign the correct answer and an answer range

3. Assign scores for the correct answer. Scores can be given for answering within the range given if desired or else, give zero.
4. Click on **Save** to finish.
**Pull Down List**

**Preview**

Below is an example of what this Item Type can look like when completed.

![Pull Down List Example](image)

This Item Type presents students with a prompt followed by a drop-down list from which they select an answer. To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. Fill in the *Item stem* with the Item question.

   ![Item stem](image)

2. Fill in the *Choice text* box with the questions and the *Option text* box with the answer options.
3. Click on the *Generate Choice* button.

4. Assign a score for the correct answer(s).
5. A *Shuffle choices* button can be selected or chosen.
6. Click on *Save* to finish.
**Ranking**

**Preview**

Below is an example of what this Item Type can look like when completed.

![Ranking Preview](image)

This Item Type presents students with items followed by a drop box from which they select the sequences in the chronological order to get the correct answer. To access this Item Type, see **MANAGE ITEM** and **BASIC ITEM CREATION**, and then follow the instructions below.

1. Fill in the *Item stem* with the Item question.
2. Fill in the *Choice text* boxes with Item questions and rank them under *Rank*.
3. Assign a correct score. Choices can be shuffled by selecting the *Shuffle choice* box.
4. Click on *Save* to finish.
### Choice details

Rich text editor will open on click of choice and feedback

<table>
<thead>
<tr>
<th>Select</th>
<th>Item to be Ranked</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre Earth Life</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Earth life and death</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Spirit world and resurrection</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Kingdoms of Glory</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Scoring

- Correct score: 4
- Wrong score: 0

#### Feedback

- Correct answer feedback
- Wrong answer feedback
Select a Blank

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with Item questions followed by a drop down box in which they are required to select the correct answer from the drop down box to fill in the blank. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Fill in the *Item stem* with desired text and click on the *Get text* button

2. In the box under *Get text*, highlight the word to be a blank and click on the *Define blank* button. Do this step for all words that should be a blank.
3. By each choice, click on the blue box under ‘Incorrect answer’ to add incorrect answers. Enter the incorrect answer in the Wrong score box and click on Add as seen below.

4. Assign the correct score. You may Shuffle choices by selecting the Shuffle choice box.
5. Click on Save to continue.
Slider HTML5

Preview

Below is an example of what this Item Type can look like when completed.

![Slider HTML5 Preview](image)

This Item Type presents student with a question in which they will need to use a slider to locate the correct answer. To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. Fill in the *Item stem* with the question.
2. Set the slider properties by entering a minimum value, maximum value and an incremental value.
3. Click on the *Generate* button.
4. Slide the slider to the correct value.
5. Enter in the correct and incorrect score.
6. Click on *Save* to finish.
**Text Match**

**Preview**

Below is an example of what this Item Type can look like when completed.

![Text Match Preview](image)

This Item Type presents students with questions in which they will need to enter the correct answer(s) in a text box. To access this Item Type, see [MANAGE ITEM](#) and [BASIC ITEM CREATION](#), and then follow the instructions below.

1. Fill in the *Item stem* with the item question.
2. Give the number of lines and line width. The line width should be more than the length of the longest answer.
3. Enter in the answers in the *Keyword* boxes.
4. Assign scores for correct answer(s).
5. Click on *Save* to continue.
True/False

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with Item questions in which they will select true or false for the correct answer. To access this Item Type, see **MANAGE ITEM** and **BASIC ITEM CREATION**, and then follow the instructions below.

1. Fill in the *Item stem* with the Item question.
2. Under *Choice text*, add a score to the correct answer.
3. Click on *Save* to continue.
Vertical Sequencing

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with an Item question where they will need to re-order the sentences in a vertical sequence. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Fill in the Item stem with the Item question or instruction.

2. Fill in the Letter/Word boxes with text that will be re-ordered. Click on the Add Letter/Word button to add more Letter/Word boxes if required.
3. Click on the *Save* button right below the Letter/Word boxes.
4. Assign the correct and incorrect scores.

5. Click on the *Save* button to finish.
Write a Program

Preview

Below is an example of what this Item Type can look like when completed.

This Item Type presents students with an Item question followed by a programming feature which allows them to write out correct programing codes. To access this Item Type, see MANAGE ITEM and BASIC ITEM CREATION, and then follow the instructions below.

1. Select a program language from the Language drop down box.
2. Fill in the Item stem with the Item question.
3. Write the correct program in the program box provided.
4. Input parameters if any.
5. Click on the **Check program** button to run and test the program.

6. Input the score for the correct program.

7. Click on the **Save** button to finish.
MANAGE BLUEPRINT
The third feature under **CONTENT MANAGEMENT** is Manage Blueprint. With the Blueprint feature, faculty members can share test questions with one another from a pre-loaded test bank. The Blueprint allows a faculty member to indicate certain numbers of questions based on specific learning objectives. Students will be given different random questions based on the selected learning objectives. This will allow the students of the same class to take the same exam with different questions for each test but on the same learning outcome.

When in Manage Blueprint as the image above shows, click on *Add* to add a Blueprint. This will go to the *Add Blueprint* page like the image below where the necessary information will be filled out.
When that is done, select topics to choose a folder for the Blueprint.

Selecting the yellow folder symbol will open an image like the one below.

Select a folder, click on Select which goes back to the Add Blueprint page then click Save.
MANAGE TEST

The fourth feature under **CONTENT MANAGEMENT** is Manage Test. This is where test creation takes place. It includes the compilation of items previously created in **MANAGE ITEM**. To create a test, go to Manage Test, select the desired folder and click on the *Add* button located on the top right area of the page.

When the *Add* button has been clicked, a page like the image below will appear.

On the above page, there are six sections: *Test details, Configuration Section/Blueprint, Select items, Messages, Grades and Preferences*. It is important that these sections are filled out.
**Test details**

The Test details section contains information about the test: *Test code, Test name, Test details, Test term, Select course/subject* and *Test rule*. Fill in the required information carefully before moving on to the next section.

**Configuration Section/Blueprint**

This tab uses a Blueprint to build a test. On default, the Configuration Section/Blueprint is shown, by clicking **No** on “**Do you want sections in the test?**” under *Test rule* in *Test details*, the Configuration Section/Blueprint disappears. Also, by clicking **Yes** on Blueprint, the test will be put in the correct section. The image below describes the tab.

Choose **Add Section** or **Select blueprint** to create sections if needed, then click **Next** to continue. **Note** that tests can have sections even if Blueprint is not used.
Select Items

The next tab is the Select Items tab. This is where the items are organized into sections, or selected. The image below describes it.

After selecting items, click Next to continue to the next tab which is Messages. Here the preferred instructions are given for the test. Note that the instructions can be modified as desired.
Grades

Under this tab, the type of grading scheme for the test will be selected. Note that personal grading schemes can be created or standard grading schemes given on the list can be used. The Threshold score to pass the test can be changed as preferred.

Preferences

This is where preferences for the test can be selected. These preferences include the following:

Test Presentation
Below are the definitions of each preference:

Show hints: Allows student to choose to view hints for each item.

Allow bookmark in tests: Allows student to bookmark items within the test that they would like to go back to.

Clear Answers: Enables a button that allows student to clear their answer(s) from items.

Number of items per page: Determines how many items will be displayed on each page of the test.

Enable buzzer before time: Causes a warning to be given at the specified amount of time prior to time limit of test.

Display score for item: Shows a score for each item.

Enable item panel: Causes a panel to display on the bottom of each item that allows easy navigation to any item on the test.

Enable review questions: Causes a menu to appear within the test that allows the student to review unanswered items, answered items or all items.

Enable test utilities: Allows test aids, such as a Notepad or Basic Calculator.

Test Rule

![Test rule]

Below are the definitions of each preference:

All items should be answered: Forces students to answer all the questions on a test.

Allow skipping the items: Allows students to choose to leave items unanswered.
Allow backward navigation: Enables students to go back to previous questions on a test.

Enforce timing at: Determines whether a test is timed at item level, test level or not timed at all.

Time required to complete the test: If timing occurs at test level, this sets time limit.

**Post Test actions**

- **Show grade**: Displays a grade for test.
- **Allow student to view report in the test**: Displays a report of how many items the student attempted within the test upon completion.
- **Allow students to view progress report in the test**: Displays a report that includes the number of items correct and incorrect in addition to information about how many items were attempted upon completion of test.
- **Detailed summary**: Gives report in table form.
- **Test summary in paragraph**: Displays test summary in paragraph form.
- **View percentile**: Shows student the percentage of the class that they performed better than.
Other

Below are the definitions of each preference:

Proctored in the Testing Center: *This requires a test to be administered in the Testing Center.*

Hide test: *This prevents users other than the test creator from viewing the test.*

Secure test: *This requires the test to be taken in a lockdown browser.*

Select all the boxes desired for test set up. Click *Finish* when done with preferences selection.
MANAGE GRADE SCHEMES
The fifth feature under **CONTENT MANAGEMENT** is Manage Grade Schemes. This is where grade schemes for tests are created, edited, or deleted. Click on *Add* to create a new grade scheme. The image below will be seen.

![Manage Grade Scheme Image](image.png)

Fill out the necessary information and click on *Save* to add the grade scheme.

**Note:** The Grade scale must range from 0 to 100.

MANAGE DIGITAL ASSETS
The sixth feature under **CONTENT MANAGEMENT** is **MANAGE DIGITAL ASSETS**. To use this feature, follow the steps below.

1. Select your sub-folder in Manage Digital Assets.
2. Click on the *Add* button. A box containing Single or Multiple uploads appears as seen in the image below.
3. Upload the desired digital material and click *Save.*
MANAGE ESSAY EVALUATION

This is the seventh feature under CONTENT MANAGEMENT. Under this feature, essay evaluation and grading can be done. To evaluate an essay, click on the lock symbol and then on the evaluate link on the right.
The image below will appear. Click on Evaluate which will bring up the essay page to be evaluated.

When the evaluation is finished, click on Save and the status of that essay will change to “completed” as the image describes.
SCHEDULE
The tests are scheduled in this section. To schedule a test, click on the Schedule button located on the top of the page as the image describes.

Click on the continue button to manage the test schedule. When that is done, this image will appear.

Next, click on the Add button. This will go to the Manage Test Schedule information page as described below.
Fill in the required information such as **Schedule name**, which is going to be the name of the test and **Mode of delivery**, which describes how the test is to be taken. Click on the **Select test** button to access the already created test in **Manage Test**.

Click on the **Select** button and the image below will appear.

Access the test folder, select the test to schedule and click **Finish** to continue. This will go to the next page where batches or users are tagged to the test.

To tag a batch (group of people), click on **tag batches** or to **tag users** (individuals), click on **tag users** as the image below shows. Select batch(es) or user(s) as required and click on **Finish**. When finished, the schedule date and time is now made visible.
Select a **Start date** and **Start time** and then an **End date** and **End time**. Tag a **Test Center** and **Proctor** as required and click on **Save** and the information below is shown.

The test has been successfully scheduled.
REPORTS
This feature gives a comprehensive and authoritative report on the exam’s statistics. The exam’s statistics include the student’s identification and their performance. It is comprised of Items attempted, Items answered correctly, scores, percentages etc. It also gives information on when the exam was taken. Under the Reports feature there are two options, IRT and Performance Reports.

To view the Reports, place the mouse over Reports to select the preferred option.

Performance Report
By clicking Performance Report, the Learning outcome-summary page will come up. This page contains options such as Start date, End date, Test center, Search type, Select report, Export and Print. These options can be used to view a summary of test statistics. Below is an explanation of the search type option:

Search type
Use the pull down menu to select the parameters of the search. To change the type of report, click on Select report located in the top right corner of the screen. The search will depend on the needs of the user(s).
**IRT Reports**

*Item Response Theory Reports* present graphs that represent students’ performance on specific items, and tests as a whole.

Below are options available when generating reports.

---

**Item Information Function (IIF)**

The IIF gives an analytical overview on specific items in a selected test. Select a test from the pull down menu and click *View* to see the *IIF reports*. The image below shows what an *IIF report* looks like.
On the analysis chart, the x-axis represents the ability of students and the y-axis represents the success or failure of the students on their performance of the item. For example, on the graph above, high-performing students did well on the item, while low-performing students did poorly. Also, on the right, Question Analysis Details shows how many students attempted the item and how many did not, as well as how many got the item correct or incorrect. On the above graph, 16 out of 20 students got the item incorrect, which indicates that the item might be too difficult, or the class performs poorly overall. Comparison with other item and test reports can help determine if the items are too difficult or if the class performs poorly.

**Test Information Function (TIF)**

The Analysis Chart in the TIF is read the same as in the IIF, however, the report is for the overall performance of all items in the test selected. On the right side of the image above, the Test Analysis Details displays how many students fall into different percentage brackets below the total number of students that took the test.
**Item Characteristics Curve (ICC)**

The *ICC* gives information about the performance history of the items in a test. Information from the *ICC* is used when generating reports for the *IIF* and *TIF*. The graph is read the same as in *IIF* and *TIF*. 
<table>
<thead>
<tr>
<th>INDEX</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add passage</td>
<td>7</td>
</tr>
<tr>
<td>Analysis</td>
<td>10, 83</td>
</tr>
<tr>
<td>Application</td>
<td>10</td>
</tr>
<tr>
<td>Basic item creation</td>
<td>6</td>
</tr>
<tr>
<td>Blanks</td>
<td>17, 21</td>
</tr>
<tr>
<td>Blueprint</td>
<td>5, 10, 66-69</td>
</tr>
<tr>
<td>Classification</td>
<td>10</td>
</tr>
<tr>
<td>Complexity</td>
<td>10</td>
</tr>
<tr>
<td>Comprehension</td>
<td>10</td>
</tr>
<tr>
<td>Configuration section/blueprint</td>
<td>69</td>
</tr>
<tr>
<td>Connect the points html5</td>
<td>11</td>
</tr>
<tr>
<td>Content management</td>
<td>5</td>
</tr>
<tr>
<td>Custom metadata</td>
<td>10</td>
</tr>
<tr>
<td>Digital Assets</td>
<td>75</td>
</tr>
<tr>
<td>Draw Lines</td>
<td>12</td>
</tr>
<tr>
<td>Draw Points</td>
<td>12</td>
</tr>
<tr>
<td>Entry list static</td>
<td>14</td>
</tr>
<tr>
<td>Essay</td>
<td>15</td>
</tr>
<tr>
<td>Evaluate Essay</td>
<td>76</td>
</tr>
<tr>
<td>Evaluation settings</td>
<td>15</td>
</tr>
<tr>
<td>Fill in the blank</td>
<td>18</td>
</tr>
<tr>
<td>Fill in the blank drag and drop</td>
<td>17</td>
</tr>
<tr>
<td>Grades</td>
<td>68</td>
</tr>
<tr>
<td>Hide item</td>
<td>10</td>
</tr>
<tr>
<td>Home</td>
<td>5</td>
</tr>
<tr>
<td>Horizontal sequencing</td>
<td>23</td>
</tr>
<tr>
<td>Hotspot multiple choice HTML5</td>
<td>24</td>
</tr>
<tr>
<td>Hotspot multiple response HTML5</td>
<td>26</td>
</tr>
<tr>
<td>Image labeling</td>
<td>28</td>
</tr>
<tr>
<td>Image labeling drag and drop</td>
<td>30</td>
</tr>
<tr>
<td>Image labeling entry</td>
<td>32</td>
</tr>
<tr>
<td>Image labeling selection</td>
<td>34</td>
</tr>
<tr>
<td>IRT Reports</td>
<td>82</td>
</tr>
<tr>
<td>Item Characteristic curve</td>
<td>84</td>
</tr>
<tr>
<td>Item code</td>
<td>7</td>
</tr>
<tr>
<td>Item details</td>
<td>7</td>
</tr>
<tr>
<td>Item hint</td>
<td>10</td>
</tr>
<tr>
<td>Item Information function</td>
<td>82</td>
</tr>
<tr>
<td>Item label</td>
<td>7</td>
</tr>
<tr>
<td>Item Points</td>
<td>24, 29, 31, 33, 35</td>
</tr>
<tr>
<td>Item preferences</td>
<td>10</td>
</tr>
<tr>
<td>Item preview</td>
<td>10</td>
</tr>
<tr>
<td>Item stem</td>
<td>7</td>
</tr>
<tr>
<td>Knowledge</td>
<td>10</td>
</tr>
<tr>
<td>Language select</td>
<td>7</td>
</tr>
<tr>
<td>Likert scale</td>
<td>36</td>
</tr>
<tr>
<td>Manage blueprint</td>
<td>5, 66</td>
</tr>
<tr>
<td>Manage digital assets</td>
<td>75</td>
</tr>
<tr>
<td>Manage essay evaluation</td>
<td>5, 76</td>
</tr>
<tr>
<td>Manage grade schemes</td>
<td>75</td>
</tr>
<tr>
<td>Manage item</td>
<td>6</td>
</tr>
<tr>
<td>Manage repository</td>
<td>5</td>
</tr>
</tbody>
</table>
Manage test .................................... 68
Matching ........................................ 37
Matching drag and drop ........................ 38
Matrix ............................................. 40
Memory .......................................... 10
Multiple choice dynamic ....................... 42
Multiple choice static .......................... 48
Numeric .................................. 51
Operand ........................................ 19, 42, 45
Passage details ................................... 7
Performance report ............................... 81
Post test actions .................................. 73
Preferences .................................... 11, 68, 71
Pull down list .................................... 53
Ranking .......................................... 55
Reports .......................................... 81
Rubric score ..................................... 15
Schedule ........................................ 78
Secure item ..................................... 10
Select a blank .................................... 57
Select Blueprint .................................. 69
Select items .................................... 68, 70
Shuffle choice box ............................... 55, 58
Slider html5 ..................................... 59
Sub-items ....................................... 37, 40
Synthesis ....................................... 10
Tag batch ....................................... 79
Tag User ....................................... 79
Test details ...................................... 68
Test Information function ..................... 83
Test presentation ............................... 71
Test rule ......................................... 69, 72
Text match ....................................... 60
Time .............................................. 10, 73
True/false ....................................... 61
Upload .......................................... 75
Vertical sequencing ............................ 62
Write a program ............................... 64
GLOSSARY

Add passage: An option when creating Items which allows users to preface their Item with a dialogue. Usually necessary to provide instructions prior to the Item content in order for the student to analyze the Item as expected.

Classification: A required identification setting for all Items created. Classification levels come from Bloom’s Taxonomy and include Knowledge, Comprehension, Application, Analysis, Synthesis, Evaluation, and Memory. This feature is a reason Blueprint is successful in test creation.

Complexity: A required identification setting for all Items created. Selections include None, Very Easy, Easy, Moderate, Difficult and Very Difficult. This feature is a reason Blueprint is successful in test creation.

Configuration section/blueprint: A test design feature which is available when desired in the test creation process. If the user indicates it is not desired, it will not show up when entering test details. It allows the test creator to select Items from a predesigned blueprint, as well as section the test as needed.

Connect the Points HTML5 An Item Type which requires an image and allows the user to place points on the image, then connect them with lines to form a correct answer which the student must emulate exactly to get the most credit. Points may be given for a variety of specified semi-correct or incorrect answers.

Content management: A sub menu accessible from the top of the screen which contains exclusive links to the test and item management options Manage Repository, Manage Item, Manage Blueprint, Manage Test, Manage Grade Scheme, Manage Digital Asset, and Manage Essay Evaluation. These options will help create and manage a test.

Dashboard: SARAS Homepage which displays tests summary and basic test statistics for the day, and upcoming scheduled tests.

Digital Asset: All digital media which has been uploaded to the program. Digital Assets can be managed by clicking on Manage Digital Assets under the Content Management pull-down menu at the top of the screen.

Entry list static: An Item Type which is designed for the user to provide short prompts or questions followed by empty boxes for the student to type their short responses or answers in. Answers must be typed exactly in order to be correct. The Item creator will need to keep case-sensitivity in mind, as well as the needs of the students to be informed of case-sensitivity.

Essay: An Item Type which allows the user to set requirements for student essays in tests. Some options include setting a lower and upper word limit, choosing to grade on a rubric or numeric
setting, allowing feedback and providing a space for a title to the essays to be added by the students.

**Fill in the blank text**: An Item Type which allows the user to type a passage and blank out selected words, requiring the student to fill in the blank(s). The user must specify blanks in the passage by deleting the word and replacing it with the exact statement `{blank}`.

**Fill in the blank drag and drop**: An Item Type which allows the user to type a passage and blank out selected words, requiring the student to fill in the blank(s) by dragging and dropping word selections provided by the Item creator. The user must specify blanks in the passage by deleting the word and replacing it with the exact statement `{blank}`. Incorrect words may be added to make the Item more difficult.

**Fill in the blank dynamic**: A mathematical Item Type that allows the user to establish questions relating to one thing of mathematics and incorporate random elements to the equation.

**Grades**: In SARAS, grades are referred to in Blueprint or Test creation primarily and the exact specifications for grading are set by the Blueprint or Test creator. A predesigned Grade Scheme can be selected for use OR the user can design their own grade scheme to implement and save. The Grade Scheme designed or chosen will determine the exact grading of the student’s performances.

**Hide item**: This prevents other users from seeing the item(s).

**Hide Test**: This prevents other users from seeing the test(s).

**Home**: An option accessible from the top of the screen which when clicked on will return the user to the Dashboard.

**Horizontal Sequencing**: An Item Type which allows the user to create a list of separate terms which should be randomized. The terms will be presented horizontally in bubbles which can be clicked on, dragged and rearranged. The goal of the student is to arrange the terms in the intended or correct order.

**Hotspot multiple choice HTML5**: An Item Type which requires an image and allows the user to create customizable boxed areas over the image to highlight sections of the image the user wants the student to identify. What to identify should be listed in the Item Stem or Passage and points are assigned to the correct boxed areas by the Item creator. The student may only select one box as an answer.

**Hotspot multiple response HTML5**: An Item Type which requires an image and allows the user to create customizable boxed areas over the image to highlight sections of the image the user wants the student to identify. What to identify should be listed in the Item Stem or Passage and
points are assigned to the correct boxed areas by the Item creator. The student may select **multiple** boxes in their answer.

**Image labeling**: An Item Type which requires an image and allows the user to mark certain points on the image for the student(s) to label. The Item creator provides a list of terms which the student will click on, then the student will click on the point on the image they want to match it to.

**Image labeling drag and drop**: An Item Type which requires an image and allows the user to mark certain points on the image for labeling by the student. The Item creator provides a list of terms which the student will click on and drag to the point on the image that they wish to label.

**Image labeling entry**: An Item Type which requires an image and allows the user to place points on the image to be labeled by the student. The points turn into entry boxes on the image when taken by the student and the student enters their answer(s) on the image. The user can designate multiple correct answers for each point and may adjust case sensitivity for each point.

**Image labeling selection**: An Item Type which requires an image and allows the user to place points on the image to be labeled by the student. The points turn into pull-down menus which the student may select their answer from. The user can designate only one correct answer for each point.

**Item**: The word SARAS uses synonymously with in place of the word Question. An Item is an individual question, prompt or problem to be compiled and presented in a Test with other Items.

**Item code**: A code selected by the Item creator during Item creation by which the Item will be identified in conjunction with its Item label. Item codes are required at the time of Item creation and cannot be identical to other existing Item codes.

**Item details**: A section in Item creation which contains options for Language selection, Item code, Item label and Item stem.

**Item hint**: An optional section in Item creation which allows the user to provide up to 3 hints to the student, which the student may reveal during the test to seek assistance.

**Item label**: A label selected by the Item creator during Item creation by which the Item will be identified in conjunction with its Item code. Item labels are required at the time of Item creation and can be identical to other existing Item labels.

**Item preferences**: A section in Item creation which contains options for Complexity, Classification, Hide Item, Secure Item and Time Required to Answer. Complexity and classification are required fields at the time of Item creation, but can be set to None.

**Item Preview**: A feature which can be selected after an Item has been created in the Manage Items area. When Preview is selected from the pull-down menu to the right of the Item on the
list, a pop-up window is displayed with the Item in all of the functionality specified by the creator. This allows for quick testing and editing of specific Items.

**Item stem:** An area in the Item details section during Item creation where the user will provide information which will be useful in guiding the student to an understanding of the expectations of them and the manner in which the Item is to be solved or answered.

**Item type:** A specific classification of the Item chosen by the Item creator from a list during Item creation which suits the needs of the creator. Different Item types are necessary in order to allow a wide variety of questions to be presented on Tests.

**IRT Reports:** Item Response Theory reports are highly detailed reports which are primarily designed to be read by psychometricians, though most can understand their basic concept. In IRT reports, users may view graphical representations of student performances on specific Items or entire Tests over multiple instances and periods of time in relation to student ability. Ultimately, this information can be used to edit Tests or Items in a manner which makes them more applicable to wide varieties of student ability types.

**Likert scale:** An Item Type which allows the user to present some options that the student will select as a response. It is designed to be presented in survey form and puts questions/answers in the format of “--------. Do you agree?” / “Agree” “Neither agree nor disagree” “Disagree”.

**Manage Blueprint:** An option under the Content Management pull-down menu at the top of the screen which takes the user to an area where Test Blueprints can be created and edited. Everything regarding the creation of a Blueprint is performed in the Manage Blueprint area.

**Manage Digital Asset:** An option under the Content Management pull-down menu at the top of the screen which takes the user to an area where digital assets are uploaded and stored. Digital assets, or digital media as it is more commonly referred to, can be moved and renamed from this area as well. Digital assets are integrated with Items during Item creation when the user clicks on the “Browse image library” button and selects the image they desire to use.

**Manage Essay Evaluation:** An option under the Content Management pull-down menu at the top of the screen which takes the user to an area where they may read and grade student essays. Essays must be locked in order to be evaluated.

**Manage Grade Schemes:** An option under the Content Management pull-down menu at the top of the screen which takes the user to an area where they may create and edit grade schemes to be used on tests. Grade schemes are important and must be accurate for the intentions of the test creator, as they will frame the performance of the students and can be easily overlooked.

**Manage Item:** An option under the Content Management pull-down menu at the top of the screen which takes the user to an area where they may create and edit Items to be used in Tests. In this area, Items may be deleted and tested as well.
**Manage Repository**: An option under the Content Management pull-down menu at the top of the screen which takes the user to an area where they may view and edit repository data. The Repository is a comprehensive list of varieties of data within SARAS. Folders may be added or deleted at the user’s discretion and should include Digital assets, Test Template, Item and Test folders by default. The repository is for data location management and handling or editing of each of the resources themselves is best done in their respective Content Management sections.

**Manage test**: An option under the Content management pull-down menu at the top of the screen which takes the user to an area where they may create and edit tests. Tests are comprised of many factors. What Items are used and what restrictions are imposed are the primary components of a test and they may be specified through the features of Manage Test.

**Matching**: An Item Type which allows the user to pose lines of text beside pull-down menus which the student will be expected to select their answer from. The answers in the pull-down menus are composed of all correct answers which the user has entered during Item creation. The student must match the answers correctly with the set text to the left in order to receive credit.

**Matching drag and drop**: An Item Type which allows the user to pose lines of text beside other lines of text. The student must click on the answer they want on the right side and drag it up or down so that it is next to the text on the left side they want to match. In this form of matching, the user may provide extra answers which are incorrect to dilute the selections and make the item more difficult, if desired. Without randomization, the user must also arrange the answers in their own fashion to avoid having the answers automatically be by their correct counterparts.

**Matrix**: An Item Type which allows the user to create multiple questions on a list OR a prompt to do specific instructions with all of the following listed elements with multiple choice responses to the right of the questions or elements. This should be tested well to ensure proper alignment with the text and answers.

**Multiple choice dynamic**: An Item Type which allows the user to implement a wide range of customizability in a multiple choice question. The user can set a range of values which will randomize when the Item is performed and set these values amidst constant operands. This Item type is optimized for use in mathematical operations because of its unique characteristics.

**Multiple response dynamic**: An Item Type which allows the user to implement a wide range of customizability in a multiple choice question. Multiple response dynamic is similar to the Multiple choice dynamic except that with this Item Type, students can choose multiple answers instead of just one answer. The user can set a range of values which will randomize when the Item is performed and set these values amidst constant operands. This Item type is optimized for use in mathematical operations because of its unique characteristics.
**Multiple choice static**: An Item Type which allows the user to pose a question or a prompt and create a customized amount of choices for the student to select from. Points may be given for as many choices as the user desires, though the student may only select one choice for their answer.

**Multiple response static**: An Item Type which allows the user to pose a question or a prompt and create a customized amount of choices for the student to select from. Points may be given for as many choices as the user desires and the student may select as many answers as the user allows when they create the Item.

**Numeric**: An Item Type which allows the user to pose a question or a prompt with the expectation of a numeric response from the student. Only numeric responses are allowed during performance of the Item. The user may give points to the student if they are within a certain range OR they may give points for being precise and correct OR both.

**Passage**: A portion of text which is optional to add when creating Items and is present in most Item types. Passages are displayed above the Item stem during Item performance and serve as another area in which SARAS users can deliver information pertinent to their Items. Passages may be created for a specific Item or imported from a list of passages previously created, as all passages must be assigned a code and a label when created and will be stored for future use.

**Passage details**: The specific area during Item creation in which a passage may be created or imported and adjusted to suit the needs of the user.

**Performance reports**: These reports allow the user to view a wide range of different reports on specific users, Tests, or schedules. Some reports will not apply to the selected group.

**Preferences**: Different from Item Preferences, this is a tab found during Test creation which has four designated preference lists for Test presentation, Test rule, posttest actions and other. This is where the personalization of a test is primarily defined, such as time limits, pre-test and/or post-test messages, allowing online proctoring, allowing the student to see their grade afterward, allowing the student to skip Items and go back to them later.

**Pull down list**: An Item Type which allows the user to create a list of terms or phrases with pull-down menus displayed to the right of each. The user can determine what is on the pull-down menus, even adding answers which are incorrect for all terms or phrases. The user cannot provide different pull-down menus for each question. Each pull-down menu will have all of the options available on them.

**Ranking**: An Item Type which allows the user to create a list of terms or phrases with pull-down menus displayed to the right of each. The user determines the rank of each term or phrase during Item creation and will be unable to assign the same rank to multiple terms or phrases, i.e. four terms or phrases will be labeled 1, 2, 3 and 4, not 1, 1, 2 and 3, etc. The student uses the pull-down menu to rank the terms or phrases in order.
**Reports:** A submenu accessible from the top of the screen which contains exclusive links to IRT Reports and Performance Reports.

**Schedule:** 1. A submenu accessible from the top of the screen which contains exclusive links to manage schedules and assign markers to schedule. 2. A schedule is a necessary component in test administration and must be set in order to deliver a test. Once a test has been created, the manage schedule area is the next place to go in order to deliver the test on time. When a schedule is active, the scheduled test can be delivered by proctors.

**Secure item:** This prevents other users from editing the item(s).

**Secure Test:** Causes students to open tests within a lockdown browser environment.

**Select a blank:** An Item Type which allows the user to present text with specified blanks throughout. The user may provide incorrect answers to add to the pull-down lists that will appear in place of the blanks when the student performs the item. All blank spots will be replaced with the same pull-down list of options for the student to select from.

**Select items:** A section where Items can be selected to be implemented in a test during test creation.

**Slider HTML5:** An Item Type which allows the user to provide a question or a prompt for a numerical answer and specify the range that the slider tool the students will use will have. The student then uses the provided slider to select their numerical answer during Item performance.

**Test details:** The first section of test creation when adding a new test. It contains entry fields and options for Test code, Test name, Test details, Test term, Select course/subject and Test rule. Objects marked with a red asterisk are required.

**Text match:** An Item Type which allows the user to prompt the student to type multiple responses into a typing field of specified dimensions. The user may set the size of the typing field during Item creation and may adjust it to be constrictive (to indicate the correct amount of responses expected) or to be expansive (to avoid indicating a certain amount of correct responses expected). The option for case sensitivity is available on this Item.

**True/false:** An Item Type which allows the user to pose a prompt or a question followed by a simple option for “True” or “False”.

**Typing:** An Item Type which allows the user to provide instructions for a typing evaluation situation. The Item is designed to track the student’s typing statistics and provide a score based on their performance.

**Vertical sequencing:** An Item Type which allows the user to create a list of separate terms which should be randomized. The terms will be presented vertically in bubbles which can be clicked
on, dragged and rearranged. The goal of the student is to arrange the terms in the intended or correct order.

**Write a program:** An Item Type which allows the user to create an environment in which to evaluate the student’s program writing abilities. The user selects the language to be evaluated and provides functional code for the Item to run tests with. The student must then emulate that code as best they can with only the instructions provided to build from. If the student’s code functionality properly emulates the functionality of the Item creator’s code, the student should receive points.