



**GesLearn<sup>(R)</sup> Shatin**

*( System Hosting Assessment & Teaching Items Network )*

## **Getting Started / Training Exercises**

**This training guide could be used in conjunction with the Shatin-User Guide**

**GesLearn Technology Co. Ltd.**

June, 2019

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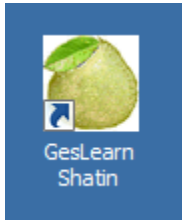
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## Exercise A Installation and Getting Started

### A.1 Getting Started:

This training guide should be used together with the Shatin-User guide. After installation of the software, the following appears on the desktop:



On clicking the icon, the following start up screen appears:

(Depending on whether your PC system is 32 bit or 64 bits, unless you have installed the relevant Microsoft office or Microsoft Access Database Engine, the following error message may show up:

***'Microsoft.ACE.OLEDB.12.0' provider is not registered on the local machine.'***

In that case you need to install the relevant Access Database Engine from Microsoft or by following the link on the company website: <http://www.GesLearn.com/shatin> )



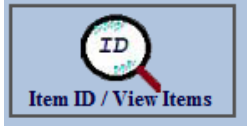
The installation, by default, installed 2 databases, Production and Training. The default **user ID** is: Shatin and the **password** is also: Shatin

## **Exercises B**

### **Search and Prepare Exam Paper**

#### **B.1 Search by ID**

(1) Login to Training database, and click Search by Item ID:



(2) At the lower text bar, enter 1-3 9

Click the item number(s) on the right and examine the items

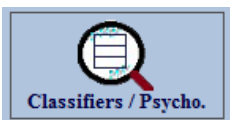
Click each of the tabs: Classification, Psychometrics, Feedback & Background Info

Then enter 3-38 39 and check the message (in red), click 'sort'

- (3) Click on item ID 1 and check the display under different tabs
- (4) Click 'Max ID'
- (5) Click 'Save' to save IDs of selected Items on default folder
- (6) Click 'Clear' to clear all the selected items
- (7) Click 'Load', to retrieve items from the default folder
- (8) Click 'IRTs'
- (9) Click Item ID 5 and click 'IRT'
- (10) Click Item ID 21 and click 'Versions'

#### **B.2 Search by Classifiers / Psychometrics**

(1) Select Search by Classifiers / Psychometrics:



- (2) Select Item type = R type, Search, Examine the Item found
- (3) On Max# wanted, enter 3 and Search again
- (4) View and Select all the Candidate items to Selected Items
- (5) Select course name=BisoStat-101 and Search
- (6) Select all the Candidate items to Selected Items
- (7) See all items under 'Search by ID'
- (8) Click Reset, Go to Psychometrics, search on Difficulty level 70-100
- (9) Select All
- (10) Go Back to Select by Item ID, Click 'Narrow Down', Select R type

### B.3 Search by Content

(1) Select search On Item Content:



(2) Click 'Update Keywords'

(2) Load indexed Keywords'

(3) Select Keywords: blood pressure, cardiovascular , health

Click Search

(4) Select Keywords: blood pressure, health

Change operator to 'And' , then Click Search

(5) Click "Search"

(6) In Section B, key in 'Stat blood', click 'Search on Content', check if the Candidate items contain the Keyword 'Stat test rank' in their content.

Change operator to 'And', then Click Search

Expand Search Scope to include ' Distracters' and then Click Search

### B.4 Search by Blueprint

(1) Select search By Blue Print:



(2) Select by blueprint -- > under question type, select the following two types:

R Type and A Type (3-5 options)

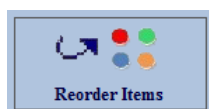
(3) Click search, set Max. (for each cell) : change from 12 to 6

(4) Replace existing selection

### B.5. Reorder Items

(1) Select items 1-38 under select items by ID

(2) Click Reorder items:



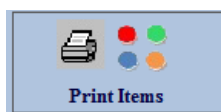
(3) Drag A-type 3-5 options to the top

(4) Click the top two buttons on the left and observe the changes on the right column

(5) Click the third button on 'Reorder individual items' on the right and re-order some items

## B.6 Print Items

(1) Create an Exam Paper on the selected Items, Click Print Items



(2) Create an Exam Paper on the selected Items.

Enter the title of Examination: e.g. Testing-1

Click 'Get File Name'

Check the exam. paper in Word rich text format, check that the items are grouped by their item type.

Click 'Open Exam Paper Directory'.

Check that 2 files are created. Check the .QMID (Question Matching Item ID) file.

(3) Create an Exam Paper with Item ID and Answers on the selected Items for the teachers and check that it contains Item IDs and answers.

(4) Click "View/Print Cover Page'. Edit and/Print as Necessary. For permanent change on the cover page, see 'Edit Templates' later.

## B.7 Reports on Bank:

(1) Check the classification statistics on the items with the following function 'Report on (item) Bank':



(2) Try the different functions and check the statistics are correct.

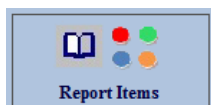
Note that items with multi-values on certain classifiers may be multi-counted.

For example, with 'Display All Item Classification Statistics':

Check under the classifier 'System'..

## B.8 Report Items

(1) Print a report on the selected items with different print options with:

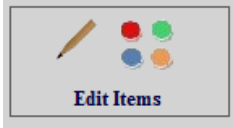


The order of the items on report facilitates the distribution of items for the teachers. For example, an exam paper may consist of items written by different teachers. Sorting the items by Author facilitates the distribution of the items to different teachers for review.

## Exercise C Add /Edit items

### C.1 Enter new exam items:

Click on 'Edit Items':



to enter the following items and classify them. The items are provided to enable copy and paste.

#### C.1.1 Enter new Item 1

- (1) Select A-type: 3-5 options, select 5 E, click '+ Add Item of selected type'
- (2) Enter the following question, save and note the item ID, assigned by the system

New Item:

Which of the following statements is Not true of a quadratic equation of the form:

$$ax^2 + bx + c = 0 \quad \text{where } a \neq 0 \text{ and} \\ a, b, c \in \mathbb{R}$$

- A) If the discriminant is  $< 0$ , there are no real roots.
- B) If the discriminant is  $= 0$ , there is only one real root.
- C) If the discriminant is  $> 0$ , there are two real roots.
- D) The discriminant is:  $-b \pm \sqrt{b^2 - 4ac}$
- E) The solution of roots can be found by:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

**Answer:** D

#### C.1.2 Enter new Item 2

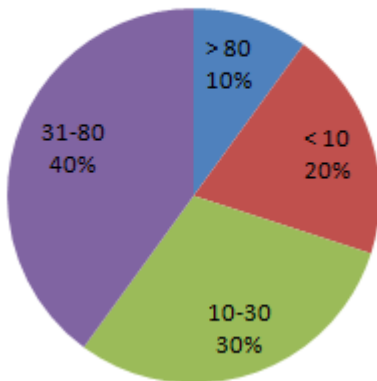
- (1) Back to 'Edit Items /Component menu' and enter the following item.
- (2) Select 'Short Answer (Numeric)'
- (3) In the Scenario Box, click 'Create/Edit', enter the scenario, Save (note the Scenario ID)  
After saving the Scenario, Click. 'Transfer and Exit'

**New Item:**

**Scenario:**



## Age Distribution



### Question:

The pie chart shows the Age Distribution of people of a small town. If the ">80" group shown represents 1500 people, what is the total population of the small town?

### Answer:

15000

### C.1.3 Enter new Item 3

- (1) Click 'New Item'
- (2) On the Scenario Box, enter the Scenario ID and load the scenario created above in C.1.2

### Item:

Question:

The pie chart shows the Age Distribution of people of a small town. If the total population of the small town is 80,000. How many people are within the age group of "10-30"?

### Answer:

24000

### C.1.4 Enter new Item 4

- (1) Select A type: 3-5 options and Enter the following item.
- (2) Note the Scenario ID.

### New Item:

Scenario:

A 40-year-old female patient was admitted to ER complaining severe abdominal pain over the right lower quadrant.

What are the investigations that you, as a clinician should **Not** do?

- A) Abdominal X-ray
- B) Full Blood Count
- C) Liver Function Test
- D) Serum Amylase Level
- E) Serum Lipase Level

**Answer:** A

### **C.1.5 Enter new Item 5**

(1) Select A type: 3-5 options and Enter the following item.

(2) Note that the Scenario is a continuation of the Scenario above.

(3) Use the advanced feature of under 'Input Scenario', top right corner button 'Advanced off'.

**New Item:**

Scenario:

A 40-year-old female patient was admitted to ER complaining severe abdominal pain over the right lower quadrant.

24 hours later, blood test showed normal white blood cell count.  
The body temperature of the patient was normal.

What is the least likely diagnosis?

- A) Appendicitis
- B) Bowel Obstruction
- C) Constipation
- D) Ectopic pregnancy
- E) Pancreatitis

**Answer:** C

## C 2 Edit and classify exam items

### C.2.1 Making Changes and create new versions:

(1) Load Item of ID 1 with:



Load Item of ID 1

Change the question from ‘ ... descriptive ..’ to ‘..inferential ...’

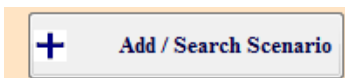
Change the Answer: A B F G

Click ‘Save As’

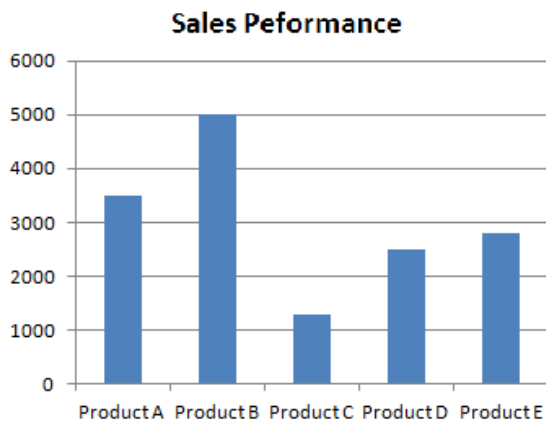
Select the item under ‘Search by ID / Preview’, click ‘Versions’.

### C.3 Edit Scenarios

(1) Add a new Scenario with



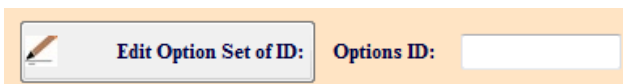
New Scenario:



Click ‘Save’

### C.4 Edit Option Sets

(1) Load Option Set of ID 1 with:



Change the number of options to 8

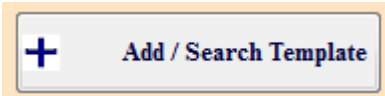
Add Option H: Factor Analysis

Select Keyword Statistics

Click ‘Save As’

### C.5 Edit Templates

(1) Add a new template with:



Name "Essay Marking Scheme-1"

Template Content:

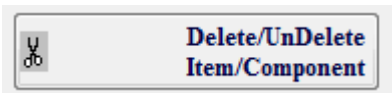
Content Relevant Points: 10% each up to 70%

Structure: 20%

Presentation: 10%

### C.6 Delete/Undelete

(1) Use the button:



(2) Read and Delete Item 1

(3) Check under 'Selected by ID /Review'

UnDelete later and Check

(4) Select an Item you entered, for example Item ID 39 and overwrite with a dummy of A-type 3-5 options .

(5) Check under 'Selected by ID /Review'

(6) Re-enter the item.

### C.7 Batch Classify

(1) Batch classify the new Items you have entered with:



Select the some items and batch classify them.

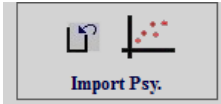
For example, select items of ID 3 and 4, then batch classify them with the keyword: Statistics.

### C.8 Import Psychometrics

(1) Carry out psychometric analysis with software GesLearn-ExamAnalayis

(2) Upload the report

(3) Import the statistic with:



(4) Preview the Psychometrics of Items 1 to 20

(5) Load the Psychometric report provide with the training data provide in the directory:  
training\testSat

### C.9 Import Items



Use the 'Import Items' function on the Main Menu to import items from other database on the same PC system.

(1) Login to the Production System.

(2) Select some items from the Training Database (for example items 1 to 38) and import them

(3) Check the imported items

(4) Reset the Production database by overwriting with a blank on the 'Maintain Database' Menu.

### C.10 Export Items



This part has to be done in conjunction with the Shatin-I system.

The export and import functions with the Shatin-I system can be tested by exporting from Shatin-PC or import items from Shatin-I training database.

The Shatin-I Training database has the same items 1 to 38 as the Shatin-PC- Training database.

## Exercise D Maintenance

### D.1 Maintain Users

(1) Use this function to add/edit users:



(1) Login as user “Shatin”, change the email address to yours.

Save

(2) Create a user of Name: Operator1

User Type: Operator Note the password

Save, exit and login again as Operator1, note the Main Menu functions

(3) Create a user of Name: Admin1

User Type: Administrator Note the password

Save, exit and login again as Operator1, note the Main Menu functions

### D.2 Manage Keywords

(1) Use this function to add/edit Keywords and Keyword Relations:



(2) Add a few Keywords e.g “Factor Analysis”, “ANOVA”

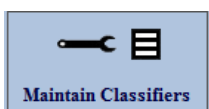
Edit a few Keywords

(2) ‘Under Edit Keyword Relations’, create a new keyword relation.

Statistics | Factor Analysis

Go to Edit an existing item and note the changes under classifiers

### D.3 Adding new Classifiers:

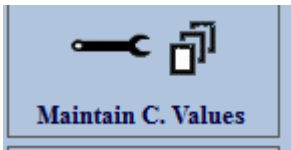


(1) Add a new Classifier: for example, “Cognitive Process“

Classifier Type: Single Selection

Save changes of (1)

#### **D.4 Adding new Classifier Values:**



(1) Adding new Classifier Values:

Under Discipline, add:

Chinese Herbs, Statistics, Medicine

Under 'Cognitive Process', add:

Memory, Reasoning-deductive, Reasoning-inductive

(2) Classify the existing and new items with the new classifier values if applicable

#### **D.5 Manage Data base**



(1) Create a new database a Name "Training-3" and login to Training-3

(2) Overwrite with Backup "Training";

(3) Create a backup and then restore

(4) Experiment on other functions.

## Exercise E

### Advanced Maintenance



#### **E.1 Report & Re-Index**

##### **E.1.1 Report**

(1) With Training database,

Select all the items 1-38

In Main Menu, click 'Reports Items', note the Classifiers on the lower right had column

(2) Go to Advanced Maintenance, under 'Report & Re-Index', select all the classifiers, save.

Go back to 'Report Items', note the changes,

Use the 'Create File on Current Selected Items ...' function to generate the output files under different conditions and note the order the items in the output/

##### **E.1.2 Re-Index All:**

(1) Click 'Re-Index All', and note the message

#### **E.2 Classifiers**

(1) Under "Select classifiers for Options Sets" and "Selected classifiers for Scenarios":

Select a different set of classifiers (2 to 4 classifiers) for Option Sets and Scenarios,

Go the Main Menu, click Edit Scenarios or Edit Options, and note the changes on the classifiers.

(2) Under "Select the classifiers with restricted values":

Select a different set of classifiers, save

Use the 'Maintain C. values' function under the Main Menu:

Try to edit the classifier values of the classifiers that you have selected and note the changes

(3) Under "Select the Psychometrics with restrictions":

Select one or two Psychometrics, save

Go to the next tab 'Psychometrics' and note the changes

#### **E.3 Import Items Parameter**

(1) Under 'Merge classifier values':

Select a different set of classifiers, Save



Use the Import Items function under the Main Menu, import some items and note the changes

(2) Under 'Override classifier values':

Select a different set of classifiers, Save

Use the Import Items function under the Main Menu, import some items and note the changes

#### **E.4 Edit/Add New Item Type**

(1) Add a new item Type:

Name: Long Essay Generic Type: Short Answer

Instruction for Exam: Long Answer: (not more than 500 words)

Use the Edit Items function under the Main Menu, add a new item of type: 'Long Essay'

(2) Use the 'Edit function' to make some changes

#### **E.5 Edit/Add new DB (database) type:**

(1) Use the 'Maintain Database' function under the 'Main Menu', Create a new database of name say 'Training-2'.

Login to Training-2, add some classifiers specific to a Discipline, e.g. Nursing.

Go to Advance Maintenance, Under 'Add new db type', create a new database type, of name, e.g. Nursing, Save,

Exit and login again to Training-2', note the changes.

Go to 'Maintain Database', note the changes under 'Overwrite with blank'

#### **E.6 Colors & Fonts:**

(1) Make changes to the colors, Save, Go the Main Menu and note the changes

(2) Change the font, to the Edit items (Only font type and font size can be changed),

Save, Exit and Login again

Input a new item and note the changes

(3) Go back to the menu and restore the defaults, then Save