PU WebSurvey:
A Step-by-Step Guide

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Getting Started

The Princeton University Survey Facility allows members of the Princeton University community to create customized Web survey applications.

Go to [http://websurvey.princeton.edu](http://websurvey.princeton.edu)

Click **Survey Tools** from the left menu bar and follow the steps below.

- **Step 1. Survey Subsection Editor**
- **Step 2. Master Survey Editor**
- **Step 3. Survey List Editor**
- **Step 4. Survey Choice Editor**
- **Step 5. Survey Question Editor**
- **Step 6. Preview/Test Survey**

Optional Step. **Move Survey Subsection to another Survey Subsection (If required)**
Step 1: **Survey Subsection Editor**

The most important property of the master survey is the list of one or more attached *survey subsections*. Each survey subsection is essentially a Web form with questions. Each survey subsection has properties that survey creator can set.

- Start the *Survey Subsection* editor and click *Submit* button.
- Authenticate yourself using your NetId and Password.
- The subsection screen looks like this.

**Figure 1.1: Subsection Editor**

- You have to create a number of subsections according to your need. Sometimes only one is sufficient (if it is a small Survey with simple question types only. e.g. no jump logic or randomization).
• Click *Create Survey* radio button, and then *Submit* button.

**Figure 1.2: Subsection Editor**

- At the bottom half of the screen a script called CREATE SURVEY will appear. You will make changes in the fields according to your requirement. Type a name for this subsection (this is not the main title for the Survey, just one of the many subsections). You can fill in the field *Enter Optional Displayed Survey Title*, if required. Scroll down to see the rest of the screen and fill up fields as required.
• Click *Create Survey* button at the bottom. At the bottom half, Survey created confirmation box will appear.

**Figure 1.3: Subsection Editor**

• Repeat the same procedure as required creating more subsections, depending on the number of subsections you need.
• Subsections can be edited. You have to select the particular subsection that needs editing, then select the *Edit Survey* radio button from the top half of the screen and make the changes.
Step 2: **Master Survey Editor**

The master survey is essentially the sequence of Web forms which corresponds to the list of attached survey subsections. Each Web survey application corresponds to a **master survey** that is owned by the survey creator (survey creators are identified by their OIT Unix NetId). Master surveys have properties that determine the overall characteristics of the Web survey application.

- Go to *Master Survey* editor and click *Submit* button.
- Use your OIT Unix NetId/password to authenticate.
- Click *Create New Master Survey*, and then *Submit* button from the top half of the screen.
- The screen will look like this. Scroll down when necessary.

**Figure 2.1: Master Survey Editor**

![Image of Master Survey Editor interface]

- At the bottom half of the screen a default script called CREATE NETID [MASTER SURVEY] will appear. You need to fill out the script here according to your requirement. Type in the survey name.
- **Enter Survey Scriptname**: This is the URL for the master survey (Note ".pl" will be append to name)
  For Example, the URL for Scriptname "Test" is
  http://websurvey.princeton.edu/cgi-bin/Test.pl
- Modify the other fields as required.
- At the very bottom (scroll down) you have to select the subsections you created for this Survey from the Subsection Selection List and subsections will be automatically entered in the Enter Subsection Number List box. All you have to do is just make sure all your subsections are included - once. Then click Create Master Survey button.

**Figure 2.2: Master Survey Editor**

Select the subsections to be included in this master survey
This is how a complete Master Survey creation looks like:

**Figure 2.3: Master Survey Editor**

![Master Survey Editor](image)

If you scroll down you will see the rest of the subsections.

Line has been dragged up to view the full script.
Step 3: **Survey List Editor**

A typical survey consists of a series of questions. Each question has an associated input. If the input is list of options, the selected option (or selected options) is stored as the "response" to the question. However, the survey creator may want to associate a hidden value for each listed option and wants that value to be stored as the "response". For example, the list of options maybe ("Male", "Female") and the desired corresponding hidden values are ("M","F"). So when the respondent selects "Male", the corresponding hidden value "M" is stored as the response. To support these requirements, the Survey Facility provides *survey lists, survey choices*, and *survey questions*.

A survey list is a list of values which is identified by a unique label. The values in these survey lists are used as lists of options in survey questions.

For each answer choice (option) you have to create two lists. One *Display List* and one corresponding *Value List*.

- Go to *List* editor and click *Submit button*. 
Creating Display List

- In the next screen click *Create New List* and then *Execute Action On List* (have to scroll down a little).
- At the bottom the script to Create list will appear. You will name the list where it says *Enter Description*. In the next box you will enter the different options, which are the answer choices. For example: Male, Female or Never, Sometimes, Frequently, Always. After typing each option press enter and then type in the next option. Make sure not to press enter after the last item.
- After you’ve entered all of the options, click *Save New List*. The screen looks like this when you’ve finished.

Figure 3.1: List Editor

- Each list will correspond to a question. You will have to probably create a number of lists. If you have a question like:

  **Please indicate your gender:**
  - [ ] Female
  - [ ] Male
  - [ ] Other
Your list will contain Male, Female, Other. This list can be used in any question that has only these three choices.

If your question is like

Please indicate your gender:

[ ] Female
[ ] Male
[ ] Other ___________

where the respondent has to fill in the Other, then your List will be like the following:

Female
Male
Other ==32

When you have another question:
1. Please indicate your race:

[ ] American
[ ] Asian
[ ] African
[ ] Hispanic
[ ] Native American

Your list will contain American, Asian, African, Hispanic, Native American. Like this create as many lists as required.
Creating Value List

The survey creator will associate a hidden value for each listed option and that value will be stored as the "response". Therefore for each list (Display List), you have to create an additional list (Value List) which will have the number value for each option. Like: after creating the Male, Female list, you will Create another list whose values will be 1 and 2 only (Type 1, then press enter, then type 2). For Male, Female, Other list, Create another list of 1, 2, 3. For a list of 6 choices there has to be a value list of 1 through 6. Each item in a Display List corresponds to a number value.

- Create the lists exactly the same way you created the Display lists.
- This is how the value list will look like.

Figure 3.2: List Editor
Step 4: **Survey Choice Editor**

A survey choice is an object which specifies input type to a question. Each survey choice is identified by its four properties, a *display list*, a *value list*, *input type*, and *location*. The *Display List* is the name of a survey list and the values in that survey list will be used as the list of options displayed. The *Value List* is the name of a survey list and the values in that survey list will be used as the list of hidden values associated with the options of the Display List. The input type dictates the type of input.

- Go to *Choice* editor and click *Submit* button.
- In the next screen click *Create New choice* followed by *Execute Action On Choice*. At the bottom the Create New choice script will appear.
- First go to the drop down *Display list* and select a list.
- Then go to the drop down *Value list* and select the number value (these are from the number lists you created) that corresponds with the *Display List*. If there are 5 choices in the display list then you have to select a list that has values 1 through 5.
- Go to the *Input Type* and then select the type you want this list to be (Radio buttons or check boxes, Text line, Comments only etc.)
- Then go to *Location* and select where you want the answer choices to be: Same row or Next Row.
- Click *Create*.

**Figure 4.1: Choice Editor**

![Choice Editor Interface](image-url)
Step 5: **Survey Question Editor**

The survey question is the basic building block of a survey subsection. Each survey question has its own set of properties which determine the characteristics and layout of the actual question. A typical survey consists of a series of questions. Each question has an associated input.

- Go to *Question* editor and click *Submit* button.
- From this screen select one subsection, usually your first one to start the Survey questions. Then click *Get Questions*.

**Figure 5.1 Question Editor**

Select your subsection from this list

Click Get Questions button.

You can drag this line up to see the whole screen.
Since you have not recorded any question, it will show 0 questions. You have to select Create (End of List) and click Submit (from the top half of the screen) button.

Figure 5.2: Question Editor
- At the bottom half, the script to Create questions will appear.
- There is a field that says *Replace this line with your Question*, you can either type in or copy and paste your question from word document.

**Figure 5.3: Question Editor**

![Question Editor](image)

- Fill up the rest of the fields in this editor. The following sections will show how to do that and create questions with different types of responses.
If Radio Button or Check Box

- If the answer choice is Radio buttons or check boxes then, after typing in the question, make necessary changes in all the fields and go to the very end where it says Choice Selection List. Select the answer choice that you created in the Choice Editor for this question. The number of the choice will appear in the section where it says: (Enter Choice Number List use ",," as delimiters i.e., "1, 2, 4").

- If you want to prevent the respondent from selecting more than the allowed number of checkboxes you have to set Max Answers to a value greater than 1 for questions with checkbox input types. That value determines the allowed number of checkboxes. For Radio Buttons don’t change this field.

Figure 5.4: Question Editor

The question will be generated like this.

The choice selected for Radio Buttons.
For Check box you will select a choice which has *Check Box* as *Type*. This you have already created in the *Choice Editor*.

**Figure 5.5: Question Editor**

The choice type is *CheckBox Per Line*

This is how the question will look like.

To create this option see *List Editor*.
If Comment/Instruction

- If the question is just a comment (or instruction), which doesn’t require any input, then you type in your question in the **Question Text** box.
- Leave the other fields as they are (change only if you need to).
- In the **Choice Selection List** you will select the choice (Reserved-comment and input text) (Reserved-comment and input text) (CommentOnly) (SameRow) or you can choose the next choice, which is basically the same, except the location, which is (NextRow).

**Figure 5.6: Question Editor**

This is a special predefined survey list called "Reserved for comment and input text". This special list has no list of values associated with.

This is the choice used for comment type questions.
If Text Box

The input may be a text field where the respondent enters text. If the input is a text field, the entered text is stored as the "response" to the question.

- If the answer requires a textbox (which is used to prompt the respondent for multiple lines of text): The value specified by Max Columns is used as the width and the value specified by Num Rows is used as the length. For example, consider the question text
  Please enter your comments which is attached to a Text Box and Next Row choice and has Max Columns=64 and Num Rows=3. Then that question will be displayed as such

```
Please enter your comments.
```

- The Answer Type box is by default selected as Text.
- Go select the Choice. The choice here is (Reserved-comment and input text) (Reserved-comment and input text) ("Row Aligned" TextBox) (NextRow).

If Text Line

- Text Line input type is used to prompt the respondent for one line of text. The value specified by Max Columns determines the display input field length as well as the maximum number of allowed characters. For example, consider the Question Text
  Please enter your full name
  which is attached to a Text Line and Same Row choice and has Max_Column set to 16. Then that question will be displayed as such

```
Please enter your full name
```

To specify text after a text line input field, use the post text tag ^^. Place that tag at the end of the question text and then enter the text you want after the text line input field. For example, the following survey question attached to the reserved choice Text Line and Max_Columns of 6 with the following Question Text

```
Please specify rent amount^^ (in dollars)
```
generates the following form

```
Please specify rent amount (in dollars)
```
**If Numeric**

- If the question requires a number response, then from the drop down *Answer Type* box select *Numeric*. If you need a minimum and a maximum value set the *Minimum Value* property to the desired value for that question and the *Maximum Value* property to the desired value for that question (these are only used when a text line input question is marked as numeric answer type).
- Then select the *Choice*. If the respondent has to fill in a number then the choice is usually (*Reserved-comment and input text*) (*Reserved-comment and input text*) (“Row Aligned” *TextLine*) (*SameRow*).

**Figure 5.7: Question Editor**

- After you’ve filled in the appropriate boxes click *Submit*.
- In the same screen the question you created will be displayed.
- For the next question follow the previous steps, starting from selecting *Create (End of List)*. Keep repeating the steps till you are done with this subsection.
Creating Tables

We will show you how to create tables like this:

**Figure 5.8: Example of a Table**
First in the **Question Text** field, the instruction (Please read the following ---- as true) will be entered as a **comment type** question.

Then the next question which is the first row (never 1, rarely 2 ---- always 5), must be created by typing the following text in the question text box:

```
&<br>;::<b>never</b>&nbsp;<br>;::<b>rarely</b>&nbsp;<br>;::<b>sometimes</b>&nbsp;<br>;::<b>frequently</b>&nbsp;<br>;::<b>always</b>&nbsp;&lt;/br&gt;.&n
```

Then in the **Submit Button Text** enter the following code to create the above color pattern: `CHOICE_ALIGN=center,BGCOLOR_LIST=RC FFFF99 FFCC66 Colors,TEXT_BGCOLOR=#FFFF99`.

You can use different colors using the survey color codes, available in the **Display Survey Color Codes** page.

The choice for table is: (Reserved-comment and input text) (Reserved-comment and input text) (“Row Aligned” Table Comments) (Same Row).

**Figure 5.9: Question Editor**

This is how the question looks.

The question text (using HTML).

The color choice.

The choice for table.
The next question (30. I think about how I might balance a career and a family in the future) will have to be typed or copied in the Question Text box.

To create the above color pattern, the Submit Choice Button has to be filled in by: CHOICE_ALIGN=center, BGCOLOR_LIST=RC Blank #FFCC66 Colors.

The Choice has to be (JC Html 1-5 List) (JC 1-5 List) (“Row Aligned” Table Radio Buttons) (Same Row), which is pre-defined for this purpose. You choose list according to the number of radio buttons required for each row (in this case it is 1-5). Different numbers of lists are available.

Figure 5:10: Question Editor

- For the next questions follow the immediate above rule. But use alternate color codes.
If Jump To (Skip Pattern)

- When your master survey has more than one survey subsection, you can use the jumpto_survey feature to conditionally or unconditionally jump from one survey subsection to another survey subsection based on a response to a question.
- The jumpto_survey processing tests against the value specified in the Question Text field and if the processing evaluates to true, then the survey system will go to the subsection sequence number specified in the Num Rows field of the Question Editor (note that a master survey is attached to a list of survey subsections and the subsection sequence number refers to the survey subsection in that list, i.e. a value of 2 means the second subsection in the list).

Figure 5.11 Master Survey Editor

- To set up the jumpto_survey processing, insert a question immediately after the question you want to test on and attach that new question to the jumpto_survey choice and set the Num Rows appropriately.
- To understand more read the following instructions.
If you have a question like:

Generally thinking, do you think of yourself as a Liberal, Moderate, or Conservative?

- Liberal
- Moderate
- Conservative

The condition is, if the answer is Liberal go to Q# 8, if it is Moderate go to Q#9 and if it is Conservative go to Q# 10.

- You will create this question with the Radio Button options.
- Then you will have to add a few more questions for the jump process to work.

There are question IDs for each question. (To find the Quest_Id number for a question, you will go the Survey Question Editor. There is a radio option (on the top half of the screen) "Show QuestIds" which will display the Quest_Id number in front of each of the question.)

- The next Question Text will be: 

\{(QUEST_ID == 1)\}.

Here the QUEST_ID number is not written because it follows immediately after the question that is being tested. == 1 means if the answer is Liberal (1 refers to Liberal, 2 to Moderate and 3 to Conservative). So this question text \{(QUEST_ID == 1)\} means that if the above response is Liberal.

The question where it will jump to has to be the first question of a different subsection. In this case it (Quest # 8) is in a subsection which refers to the Subsection 31 in the Master Survey Subsection List. Therefore in the question editor:

- The **Num Rows** has to be 31.

So that if the response is Liberal, the survey is jumped to that corresponding question of subsection 31.

- The choice for this purpose is \(\text{Reserved-JumpTo_Survey)}\) \(\text{Reserved-JumpTo_Survey)}\) \(\text{JumpTo_Survey)}\) \(\text{Same Row}\)
- The next question will have to be for the response MODERATE. So the Question Text will be \{(QUEST_ID == 2)\}, since Moderate corresponds to the value 2. The **Num Rows** field will be filled in with the number of the subsection it will jump to (which is 32, where Quest # 9 is recorded) and the choice will always be the same.
- For the last response CONSERVATIVE, follow the above rule.
- So the survey will jump to any one of the subsections: 31, 32 or 33.
Figure 5.12: Question Editor

The number of subsection that the survey will jump to if the option selected is 1 (which is Liberal)
• There has to be one last question and the Question Text will be: JumpToSurvey. The Num Rows will be number of that subsection which is after all the jump questions – which is subsection # 34. So that the survey continues, after the jump process is completed.
• Now go to each subsection where the survey is supposed to jump to.

For example go to subsection 31. Where the question is: Do you think of yourself as a strong liberal? (This corresponds to the response LIBERAL) When the respondent’s answer is Liberal, the survey jumps to this question. The next question is about Conservative and the one after that is about Moderate. But you don’t want the respondents to see those two questions. That is why in this subsection:
• Record the question as: Do you think of yourself as a strong liberal?
  □ Yes  □ No
• Insert another question. Where the Question Text will be JumpToSurvey and the Num Rows will be 34. This will skip the questions (in subsection #32 and #33) that you don’t want them to see and take them to the next section.
• Do the same with the other two questions.

Figure 5.13: Question Editor
More Complicated (testing more than one expression)

The jumpTo_survey processing also supports two more features: can test by evaluating an expression (i.e. if expression is True, then go jump) and the expression can be configured to use responses from questions that are in previous subsections or from earlier questions in the same subsection.

- Suppose you have the following two questions in one subsection:

Do you want to exit this survey? (response to this question will be used in both the normal JumpTo_Survey processing in this subsection and the JumpTo_Survey processing with expression support in the next subsection.)

☐ Yes ☐ N

Please select a number. (response will be used in the JumpTo_Survey expression processing in the next section.)

☐ 1  ☐ 2  ☐ 3  ☐ 4  ☐ 5  ☐ 6  ☐ 7  ☐ 8  ☐ 9  ☐ 10

- Also the following question in another subsection:

Select all your favorite seasons (this response will also be used in the JumpTo_Survey expression processing)

☐ Spring ☐ Summer ☐ Fall ☐ Winter

- To configure a jumpTo_survey question for expression processing, you wrap the actual expression within an opening and a closing brace.
- Therefore the next question in this subsection will be:
Here the above line will be the Question Text, which will be attached to the jumpto_survey choice. In the Num Rows field you have to specify the number of the subsection you want the survey to jump to.

Note that expression follows the same syntax as the scripting language, Perl. This is because the survey system is built using Perl. For those who are not familiar with the syntax, here is a useful table to have.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>&amp;&amp;</td>
<td>Logical AND</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;</td>
<td>Less than</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less than or equal to</td>
</tr>
<tr>
<td>&gt;</td>
<td>Greater than</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater than or equal to</td>
</tr>
<tr>
<td>===</td>
<td>Equal to</td>
</tr>
</tbody>
</table>

The above expression has three sub-expressions:

(QUEST_ID <=2)
(QUEST_ID:20003 ==2)
(QUEST_ID:29024 <=5)

These three sub-expressions are connected by the Logical AND operators. This mean in order for the expression to be True, all three expressions must be True. Remember, the jump will only occur when the expression is True. Note in the sub-expressions, there are two kinds of tags specified, QUEST_ID, and QUEST_ID: number. The QUEST_ID tag is a marker to the survey system to indicate that the jumpto_survey process first substitute the response from the immediate previous question before evaluating the expression. The QUEST_ID: number tag has the a similar role except that instead of using the previous question, use the response from the question with the Quest_Id value equal to the number. Note all survey questions have a unique Quest_Id number (can be found in the Survey Question Editor by selecting Show QuestIds).

The \{(QUEST_ID <=2)\} expression refers to the "Select your favorite seasons" question.

The \{QUEST_ID:20003 ==2\} expression refers to question with Quest_Id 20003 (the "Do you want to exit the survey?" question in Section 1).

The \{QUEST_ID:29024 <=5\} refers to question with Quest_Id 29024 (the "Select a number" question in Section 1).

If the JumpTo_Survey processing evaluates the above expression to true then the survey will jump to the section specified in the Num Rows field.
If the responses are made in the following manner then the above expression will be true:

1. The response to favorite seasons in section 2 includes at least one of the first two values (Spring or Summer)
2. The second response was chosen to survey question: Do you want to exit?
3. The number that has selected in Section 1 is less than or equal 5.

Figure 5.14: Question Editor

Note: To see the expression feature in action go to the JumpTo_Survey Expression Demo
**Inserting Questions in existing survey**
- If you need to insert any new question in the middle, just select a question after or before which you want to put it, then select *Create (Before Selected Question)* or *Create (After Selected Question)*. The script, to create another question will appear.

**Copying Questions**
- If you need to copy any question of that subsection to the same subsection, then select the question to be copied from the right question box, where it says *(Multiple)*Select Questions To Copy, Modify Just Text Only, or Make Global Change (from the top part of the screen). Then go to the right question box where it says # Questions for Survey NAME (netid -------) select a question before or after which you want to question to be copied. Then select Copy (Before Selected Question) or Copy (After Selected Question). If you want it to be copied at the end then select Copy (End of List), then Submit.
- The question will be copied with a `<b> (Copied) </b>` tag at the beginning. Delete the tag.

**Editing Questions**
- There are two ways to edit questions. If you need to modify just the Question Text, it is recommended that you select the question from the right box, then select Modify Just Question Text and modify the question only. Don’t forget to click Submit button.
- When you need to edit other properties of the questions too, select the question from the left box, select Edit, click Submit and then make the necessary changes.

**Deleting Questions**
- To delete a question, you have to select the question from the left box and then select Delete, followed by Submit button. Only one question at a time can be deleted.

**Global Changes**
- If you need to make the same changes in several questions, select the questions from the right box, select Make Global Change and do the editing.
Completing one Subsection

When you are done with one subsection you need to start a new subsection.

- To do that, click *Retrieve Subsection List* from the top half of the screen.
- A list of the subsections will appear. You will select the appropriate subsection which you will work on and click *Get Questions*.
- Then follow the steps of the question editor above.

**Figure 5.15: Question Editor**

![Retrieve Subsection List](image-url)
Step 6: Preview/Test Survey

Once all the questions are created, you can view your survey. Go to the Master Survey Editor, select your survey, select Step Thru Master Survey button and then Submit button and it will take you to your actual survey. You have to authenticate yourself to log in.

Anytime during question creation if you want to see how your subsection looks, just go to the Master Survey Editor, select your survey and then select Display Master Survey, from top, followed by Submit button. At the bottom half of the screen your master survey will be displayed with a list of all the subsections. Just click on any subsection title and it will open a screen with that subsection, showing how the actual survey will look.
Optional Step: Move Survey Subsection to Another Survey Subsection

If moving contents of one subsection to another

- Go to Move Survey editor and click Submit button.

Copying one full subsection to another

- Select the subsection that you want to copy from (from the Source Survey Subsection list).
- Select the subsection you want to copy to (from the Destination Survey Subsection list).
- If you want to copy all the questions from the source to the destination subsection (questions will be placed at the end of the existing questions) then click Copy Source Subsection to Destination Subsection button.

Figure 6.1: Move Survey Editor

Source subsection selected to copy from.

Destination subsection selected to copy to.

To copy the whole subsection click this button.
Copying selected questions from one subsection to another.

If you want to just copy a few question then click the Select Source Questions to Copy to Destination Subsection button.

- A list of questions from the source subsection will appear at the bottom of the screen.
- You will now select the questions that you want to copy and then click Go Copy Selected Questions to DestSurvey button.
- The selected questions will be copied after the last question of the destination subsection.

Figure 6.2: Move Survey Editor

You can also move one subsection to another by selecting Move Source Subsection to Destination Subsection button. BE CAREFUL! This will move all the questions from the source subsection to the destination, leaving the source EMPTY.