Quick Reference Guide
The Authoring Process: A Course Evaluation Survey Example

What question Types are There?

Perception offers many question types. However, on a typical course evaluation survey only a small subset of these questions tend to be used. The types of question used on the evaluation will influence the type of reporting and analysis available.

The Authoring Process

The Authoring Process is summarized in the following steps:

1. Establish purpose/goal of survey

2. Establish dimensions to be measured

3. Create questions to measure dimensions, and group questions by dimensions using topics

4. Compose survey, grouping questions by content first, then by format

5. Test survey to obtain data, and revise assessment, if needed

In addition to question type, topics and assessment controls determine the analysis available in reports.

Assessment Controls

To set the correct assessment controls:

1. Set Assessment Type to **Survey**. This will automatically set the option **record results in database**

2. Consider whether the results should be stored anonymously or if it will be useful to be able to track a specific response back to an individual participant. Then set the **Anonymous results** option appropriately

Figure 1: Assessment Control Settings

Assigning Question Results to a Demographics Special Field

When determining which questions to use on the evaluation, it can be

Question types can be divided into close-ended questions and open-ended questions. The question types most commonly used in course evaluation surveys are:

- Likert Scale for asking questions

- Survey Matrix

- Pull down List for selecting demographics such as instructor name or course name

Open ended text information can be retrieved:

- Most commonly by allowing comments to be added to questions, this can be achieved in the Question Editor

- Sometimes by essay questions

very useful to assign demographic question data to one of Perception's Special Fields so as to filter the dataset in reports. It is often desirable to filter survey data by demographic data, such as course number, instructor name, department name, etc. When this is the case, the question itself can be posed in the survey, and the demographic answer or outcome can be stored in a user-defined field, known as a Special Field.

To store this data, the question must be inserted as a single question and the assignment to a Special Field must occur, as shown below.

1. Open the **Assessment Editor** and choose a question you would like to assign to a Demographic Special Field

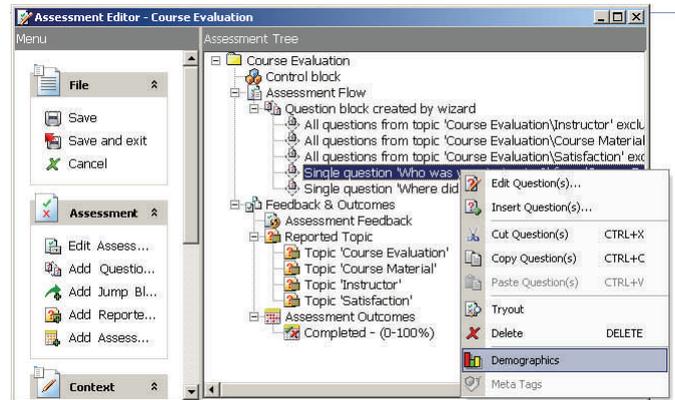2. Right click the question and select **Demographics** from the menu

Figure 2: Inserting a Single Question for Demographic Purposes

3. Choose the Special Field you would like to assign to the question's result
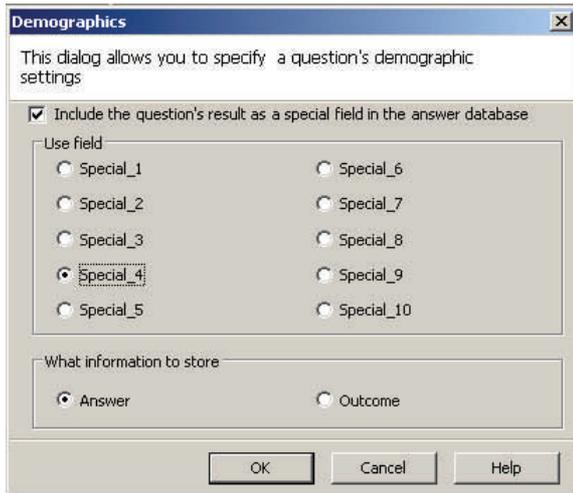
Continue to next page

Figure 3: Assigning a Single Question's Result to a Demographics Special Field

4. Select **Outcome** from the **What information to store** options

5. Click **OK**

> When a single question is assigned to a Demographics Special Field the data becomes available as a Special Field filter in reports. It is also possible to set Special Fields in other ways, e.g. by passing them from a Learning Management System, setting them on the command line to Perception or passing them from a participant's data record in Perception.
>
> For information about Special Fields, please refer to:
>
> **How can I include demographic data on participants in reports?**

Below is an example of a Demographic Special Field being applied as a filter for a Survey Report
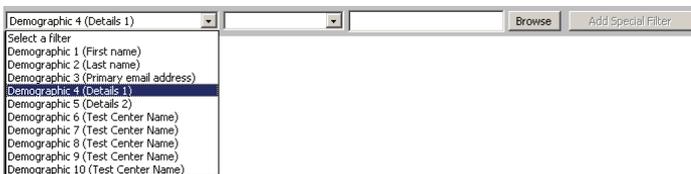

Figure 4: Filtering Report Data on a Demographic Special Field

Designing for Topic Analysis

The questions that appear on a course evaluation are often grouped into related dimensions. For instance, the evaluation may present a series of questions related to the quality of the practice exercises used, or to the knowledge and teaching ability of the instructor. Related questions measuring the same dimensions should be stored in the same Topic folders within Perception. Additionally, the author should ensure that these topics are listed under Reported Topics within the assessment structure.

This affords the possibility of grouping individual question results along these significant instructional dimensions in reporting and analysis.

Store questions related to the same instructional dimension in a single topic.
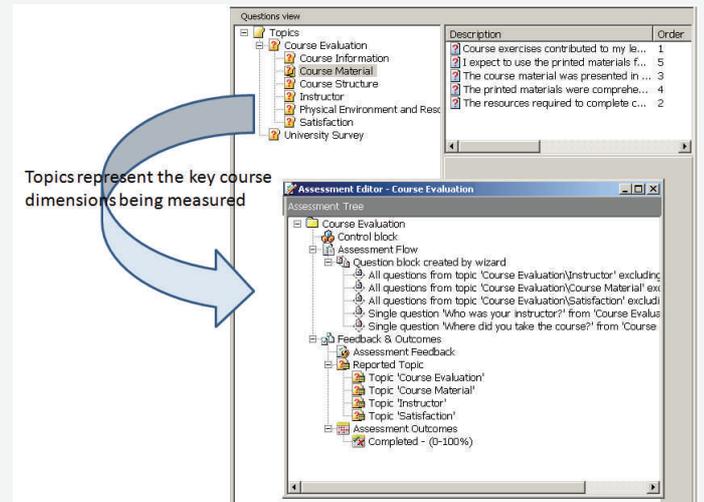

Topics represent the key course dimensions being measured

Figure 5: Topic design

Creating Questions

This section will cover the five most popular question types used in a Course Evaluation Survey: Likert, Multiple Response, Ranking, Survey Matrix and Pull Down List. As well as adding these types of close-ended questions typical to a Course Evaluation Survey it is also possible to add a comment field to any question.
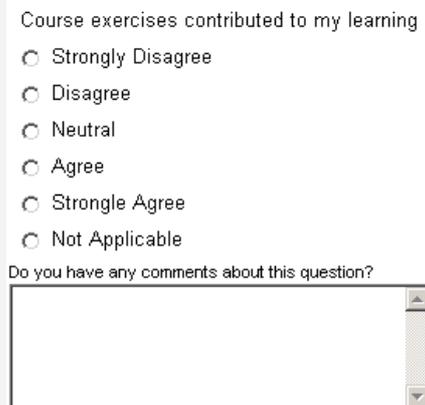

Figure 6: An example Likert Scale Question

Beta Testing your Questions

It is possible to use Perception to successfully design, develop, beta test, analyze and deliver questions to ensure that when they are used in assessments they are valid and reliable. Using Perception to carry out these operations will save time, effort, and money while ensuring that the output and results achieved are of the highest quality.

For the beta testing phase, most beta testing models recommend that steps similar to those listed below should occur:

1. Administer beta assessments to representative samples of participants

2. Analyze and compare the beta test results against estimated statistics

3. Identify that questions are valid, understandable, reliable and statistically sound

4. Improve the questions as required

Creating Comment Fields

When a question is created, an author can specify whether to provide participants with a text box in which to submit their feedback. This can be useful in Course Evaluation Surveys where the question type used is often close-ended. In this way you can allow an open-ended response to be added to qualify a response to a question.

Participant comments can be enabled by using the Question Editor in Authoring Manager. Double click on the Question Type and the following screen will display:

Figure 7: Adding a Question Comment Field

The question will then include a comment field:

Figure 8: Display of Comment Field in Assessment

Likert Scale Questions

The following describes a typical case for running the Likert Question type.

The Director of Learning Development wants to know how this year's participants for the ABC Course are responding to the course exercises and instructor effectiveness. Luckily, you have designed an assessment that asks several pertinent questions to assess the performance in these three areas.

The following Likert Scale question was asked about course satisfaction:

Figure 9: Likert Scale question

The scoring of the Likert Scale Questions for a Strongly Disagree—Strongly Agree Likert Scale may be as follows:

- If **Strongly Agree** set score to 5

- If **Agree** set score to 4

- If **Neither Agree nor Disagree** set score to 3

- If **Disagree** set score to 2

- If **Strongly Disagree** set score to 1

Scoring for Likert Scale questions can be achieved using the Question Wizard under the **Likert Scale Settings** page

Figure 10: Likert Scale Settings Page

Multiple Response Questions

Multiple Response question types are another question type to consider when creating questions for course evaluation surveys.

A Multiple Response question type must store every combination of choices available to the participant. Every combination is represented by a unique outcome. An example Multiple Response Question is shown below.

Birds-of-a-Feather Breakfasts at the Questionmark Users Conference will give you the opportunity to converse with people who share your interests and concerns. In order to help us determine which subjects interest attendees the most, please indicate which topics you are most interested in discussing at the conference. You may choose up to 3 topics.

- [ ] Adaptive Testing
- [ ] Accessibility
- [ ] Assessments for Online Continuing Education
- [ ] Assessments for Regulatory
- [ ] Assessments for Regulatory Compliance
- [ ] Assessing and Managing Competencies
- [ ] Enforcement of Buisness rules
- [ ] Global Dissemination of Assessments

Pull-Down List Questions

The Pull Down List question type will have unique question outcomes for every possible choice/option combination. An example of the Pull Down List question is shown below:
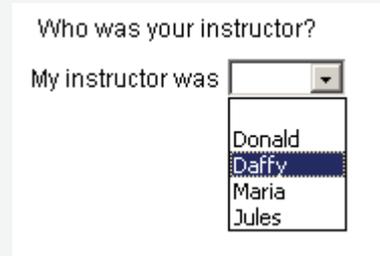
Who was your instructor?

My instructor was [▼]

Donald
Daffy
Maria
Jules

Figure 13: Pull Down List question

Ranking Questions

Ranking question types are another common question type used in course evaluation surveys. An example of a ranking question is shown below:

What factors influenced you to enroll in this university? Rank the order of the following reasons from 1 to 5, with 1 = most important to 5 = least important

affordable tuition and fees [▼]
academic reputation
location   1
teachers / professors 2
                  3
athletic programs   4
                  5

[Submit]

Figure 11: Ranking question

Survey Matrix Questions

Survey Matrix questions present a series of Agree/Disagree or other Likert Scale style questions in a table, and are typically used in questionnaires.

Rate the versatility of the Survey Matrix survey type
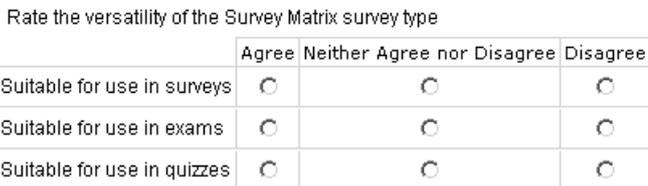
	Agree	Neither Agree nor Disagree	Disagree
Suitable for use in surveys	○	○	○
Suitable for use in exams	○	○	○
Suitable for use in quizzes	○	○	○

Figure 12: Survey Matrix question

Participants choose one answer in each row, from a matrix of option buttons. Several lines of information can be presented, giving much greater flexibility than a single Multiple Choice question. For example, several statements referring to the question text can be presented, and the participant asked to identify which ones are true.

Survey Matrix questions are logically similar to Pull-down List questions in that they allow the participant to choose one option from a list of choices. However, in a Survey Matrix question the choices are presented with option buttons and pull-down list questions use a drop-down menu.

A note on Questionmark Live

Questionmark Live lets you easily write questions and then export them for use in Questionmark Perception. Subject matter experts (SMEs) can access this powerful authoring tool anytime, anywhere. This Web-based application is available free of charge to all Questionmark Software Support Plan customers.

Questionmark Live can create the following question types:

- Multiple Choice
- Multiple Response (Right/Wrong answer)
- Multiple Response (Score per choice)
- Text Match
- Likert
- True/False

Finding more information

For more information on Authoring Questions, please refer to:

- The **Authoring** section in the **Getting Started Guide**
- The **Questions** section in the **Authoring Guide for Perception 5**

For more information on Beta Testing your Questions please refer to the **Best Practice Guide to Beta Testing High-stakes Questions with Questionmark Perception**