

Writing a Custom Survey

Surveys and questionnaires need a purpose, a format, survey items, an administration, and ways to analyze the results. This guide will help you with writing items for your custom survey.

Custom Survey Flow Plan	Page #
1. Purpose	3
<ul style="list-style-type: none">• What is the purpose of the survey? What will you measure?• What will be the specific objectives?• What decisions or actions will likely result from the survey data?	
2. Format	5
<ul style="list-style-type: none">• What delivery system will be used? Scan forms? Web?• Who will be the respondents?	
3. Writing Survey Items	7
<ul style="list-style-type: none">• What will be your need-to-know issues regarding the survey?• Will survey items be clustered into topics to increase the coverage of your objectives?• What and how many survey items will be needed to address your purpose?• What scales or response sets best fit your analytical needs?• Will forced-choice items, open-ended items, or a combination be best suited for your analysis?• Do your selected items meet the criteria for well-crafted items?	
4. Survey Administration	11
<ul style="list-style-type: none">• Did you pilot test your survey items?• Will the survey be a guided or independent administration?• How will you minimize the chance for error in your data?• What will be the logistics involved in administering, collecting, and compiling the data?	
5. Data Analysis	12
<ul style="list-style-type: none">• What type of analysis will you perform: Snapshot? Longitudinal? Multivariable? Interaction?• With whom will you share the results?• How will you share the results?• What data displays will you use to communicate the results?	

1 Purpose

Before you begin writing items for a survey, you may consider forming a team of stakeholders to gather viewpoints on the types of items to include. It may be helpful to engage in research using the Internet to find out if there are resources available to help you in your item development. Also, you might request items from the AdvancED item bank. Call 1-800-843-6773 for more information.

The first step in designing custom items for surveys is to document the survey purpose(s). You should be able to complete the following statement:

The purpose(s) of this survey is . . .

Next, identify the specific topics, or categories of items that are relevant to include. For example, the topic “Intellectual Curiosity” could have a variety of meanings to different people. Descriptors help you to define a topic so that individual items can be created or located to measure the topic. Well-crafted descriptors can give guidance to the type of survey items that would be important to include.

In the following example, the purpose of the survey was to gather perceptions about the effect of travel on life skills development. This example shows how a purpose can lead to topics, and finally to descriptors, which provide the basis for items.

Example 1

The purpose of this survey is to determine the extent to which a travel experience affects intellectual curiosity.

Topic(s)	Descriptor(s)
Intellectual Curiosity	<ul style="list-style-type: none">• Reading about/told about destination• Making connections between school learning and travel experiences• Gaining enthusiasm for learning• Becoming more curious• Sparking new interests

Use Worksheet #1 to help you structure your survey items.

Worksheet #1

The purpose of this survey is:

Your Survey	
Topic(s)	Descriptor(s)

Are the topic(s) related to the purpose?

Do the descriptor(s) clearly define a topic?

2 Format

The *Guide to Administering AdvancED Surveys* contains more detailed information on strategies for administering different types of surveys. This guide can be downloaded free of charge from the AdvancED website www.advanc-ed.org.

A survey should consist of a number of different parts. Each part is important in providing you with good information. The following table shows the different parts of a survey.

Example 2

Parts of a Survey	
Title	The title of the survey should clearly describe the topic of the survey, who is sponsoring it, and who should complete the survey.
Introductory Paragraph	Write a short paragraph that explains why you are using the survey and what you plan to do with the information. Also, thank the survey respondent for taking the time to complete the survey. Tell the respondents that their responses will be anonymous. Provide the respondent with information as to how the surveys should be returned.
Demographic Items	<p>Include some demographic items that describe the respondent and his/her context. The reasons that you choose demographics are to:</p> <ul style="list-style-type: none"> • Describe the characteristics of a respondent • Disaggregate by important attributes of the respondent <p>First, determine whether the survey results will be broken down by subgroups (e.g., experience level, degree programs). Often these subgroups are demographic groups (e.g., grade in school, gender, ethnicity). Write down whom you are planning to survey, so you can target your items directly to the group you are surveying. Also, be sure to include all of the possible responses for an item.</p>
Survey Items	Include the topic name and clusters of items related to each topic.
Instructions	At the end of the survey, thank the respondents again, and provide instructions as to what to do next.

An example of the *AdvancED Parent Opinion Inventory* on the next page illustrates the different parts of a survey.

3 Writing Survey Items

Survey items can be written in several different ways. The most important thing to remember in writing an item is to match it to your purpose and a topic. There are three things to consider in writing an item.

1. What characteristic is the item measuring?
2. What type of item would be the most appropriate?
3. What type of data is the most helpful?

Item Characteristics

Items generally fall into one of three categories. An item that has characteristics of more than one category will be difficult for a respondent to complete accurately.

- Items that measure the **attributes** of a respondent:
 - Are you male or female?*
 - Which high school do you attend?*
 - Do you have Internet access at home?*
- Items that measure the **behaviors** that a respondent is exhibiting:
 - Do you go to school every Saturday?*
 - Have you traveled outside of the United States?*
- Items that measure the **attitudes or beliefs** of the respondent on a particular issue:
 - I am satisfied with the quality of education at my school.*
 - Students at my school are treated with respect.*

Item Types

In addition to the characteristics of survey items, items generally have two types of responses:

- **Forced-choice** – provides a set of responses to choose from
- **Open ended** – allows the respondent to write their response
-

Types of Survey Responses		
	Forced-Choice	Open-ended
Advantages	<ul style="list-style-type: none"> • Fast and easy to respond • Quantitative data is easier to analyze • Provides consistent information 	<ul style="list-style-type: none"> • Hear the voices of the respondents • Explore areas/issues of concern
Disadvantages	<ul style="list-style-type: none"> • May miss critical issues/concerns • Poor construction may lead to misleading conclusions 	<ul style="list-style-type: none"> • Time intensive to analyze • Inappropriate comments may be made

Appendix A provides some examples of forced-choice response sets for different types of items.

Item Data

Depending on the item type, the data you receive may be very different. The type of data affects the kind of analyses that you might utilize. Surveys generally yield two types of data values.

- **Quantitative** – This is the data provided from forced-choice items. This data is generally either *categorical* or *interval*. Categorical data are numbers that have no order (e.g., male, female). Interval data are numbers that have order (e.g., a “1” is low and a “5” is high) and the distance between each number is equal.
- **Qualitative** – This is the text data provided from open-ended items.

Example 3 provides samples of different item types (forced-choice and open-ended), item characteristics (attributes, behaviors, and attitudes/beliefs), and item data (quantitative and qualitative).

Example 3

Survey Items				
	Forced-choice Items		Open-ended Items	
Item Characteristics	Item Data	Sample Items	Item Data	Sample Items
Attributes	Quantitative Category	Are you in the special education program at your school? 1=No 2=Yes	Qualitative	What is the primary language spoken in your home?
Behaviors	Quantitative Interval	How often are you absent from school? 1=Never, 2=almost never, 3=sometimes, 4=almost always, 5=always	Qualitative	What afternoon activities did you participate in this past fall?
	Quantitative Category	Did one of your family members visit your school last year? 1=No 2=Yes		
Attitudes or Beliefs	Quantitative Interval	Technology at our school is adequate. 5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree	Qualitative	What is the one thing you like least about your school?
	Quantitative Category	A dress code at Washington High School is important because: 1= students choose inappropriate clothes 2= students look sloppy 3=it encourages students to focus on academics		

The following checklist can be used to help you evaluate your survey items.

<input checked="" type="checkbox"/> Qualities of Good Items Checklist	
Guidelines for Good Items	Examples of Poor Items
<input type="checkbox"/> Does the item avoid double negatives?	No one is not using drugs at our school.
<input type="checkbox"/> Does the item lack bias?	An item that implies that a person should have done something that everyone else is doing An item that has words that evoke emotions Including more responses that are either negative or positive
<input type="checkbox"/> Does the item ask <i>only one</i> question?	Do you think women <i>and</i> children should take the first available flu shot?
<input type="checkbox"/> Will respondents know what the words mean?	What neighborhood do you live in?
<input type="checkbox"/> Did you give respondents a timeframe?	Have you played baseball?
<input type="checkbox"/> Do respondents know what you are referring to?	Do you agree with the dress code policy?
<input type="checkbox"/> Are your items specific, rather than general?	Do you work part time? Versus: Circle the number of hours per week that you work at a paying job: 0-5 hours, 6-10 hours, 11-15 hours, 16-20 hours, more than 20 hours
<input type="checkbox"/> Will the order of the items influence how respondents answer the items?	I feel that students have the right to wear what they want to class. I agree with the current dress code which prohibits the wearing of a hat during class.
<input type="checkbox"/> Did you use multiple items on important topics to help you determine the amount of bias in items?	
<input type="checkbox"/> Did you define any acronyms or abbreviations?	AMA (American Medical Association)
<input type="checkbox"/> Are any of your items objectionable?	Have you ever stolen anything?
<input type="checkbox"/> Did you make it clear to respondents that they must choose only one response (if it is a single response item)?	I like to study in: a. the morning b. the afternoon c. the evening
<input type="checkbox"/> Did you make any assumptions which <i>may not</i> be accurate?	The school dress code, <i>which was developed by students</i> , should be re-examined. a. yes b. no

Use worksheet #2 to help you organize your survey items.

Worksheet #2

Your Survey Items						
Topic						
Item	Response Sets*					
	1	2	3	4	5	6

*Use these only for forced-choice items.

4 Survey Administration

Review Survey Items

After you have created your survey, pilot test the items with a small group of individuals who have not been involved in its development. Collect their feedback on:

- unclear items
- amount of time it takes to complete the survey
- order of the items
- appropriateness, interest
- difficulties in responding to the items
- any patterns in responses
(e.g., all pilot participants choosing the same response)

Determine Number of Respondents

See the *Guide to Administering AdvancED Surveys* for additional tips and information on administering surveys and sampling information. This guide can be downloaded free of charge from the AdvancED website www.advanc-ed.org.

Methods of Administering Surveys

Two common methods of administering surveys are:

- **Group administration**—all respondents are gathered at a location to take the survey
- **Individual administration**—respondents complete the survey by themselves, usually on their own time

See the *Guide to Administering AdvancED Surveys* for additional tips and information on group and individual administrations.

A successful survey administration depends on giving clear directions to the respondents. Care needs to be taken in either a group or an independent administration to portray the importance of the survey.

5 Data Analysis

Types of Item Response Data

Analyzing data begins by summarizing individual respondent data. The following examples are individual case data per respondent. **Individual Item Response Data** provides the basic data which will need to be summarized and then analyzed.

Example 4

Forced-choice Respondent Data										
Respondent #	My gender	My ethnic background: (choose one)	The grade that I first entered this high school: (choose one)	The year I am attending 12th grade: (choose one)	The number of hours per week I worked outside of school to earn income during this past school year was:	Special education or IEP	Basic academic skills	English as a second language learner (ESL or ELL)	Other	During my years at this school, I participated in after-school activities:
98751	1	6	2	1	2	2	2	2	2	1
98762	2	6	1	1	2		1			1
98361	1	6	1	1	2					1
87632	2	6	1	1	1	2	2	2	2	1
97632	2	6	4	1	1	2	1	2	2	1
92352	2	6	1	1	2	2	1	2	2	1
97341	1	6	1	1	1	2	2	2	2	1
98122	2	6	1	1	1	2	2	2	2	1
98322	2	6	1	1	1		1			1
97632	2	6	1	1	1	2	2	1	2	1

Example 5

Open-ended Respondent Data	
Respondent #	Data
98751	The staff is always willing to help students.
98762	What I like the best about my school is hanging out and doing fun activities.
98361	My school is very clean, safe, and a good overall environment for learning.
97632	I like the nice teachers.

Using summary data helps protect the anonymity of individuals. Data that identifies the performance of individual students or teachers should always be summarized carefully. There are three common summaries of quantitative data:

- **Frequency distribution** – The distribution of the set of all values (e.g., frequency, percent)
- **Central tendency** – The midpoint of a set of values (e.g., mean, average/Avg., median, mode)
- **Variation** – The variation in a set of values (e.g., range, standard deviation/SD)

Example 6

Forced-choice Summarized Data*								
Value of My Education	N	Avg	SD	E N(%)	G N(%)	F N(%)	P N(%)	VP N(%)
6. The overall value of education at my high school	374	4.69	0.60	276 (73.8%)	83 (22.2%)	9 (2.4%)	2 (0.5%)	2 (0.5%)
7. English language arts classes	374	4.46	0.69	203 (54.3%)	144 (38.5%)	20 (5.3%)	1 (0.3%)	3 (0.8%)
8. Mathematics classes	373	4.17	0.92	160 (42.9%)	137 (36.7%)	58 (15.5%)	8 (2.1%)	8 (2.1%)
9. Science classes	374	4.24	0.88	170 (45.5%)	146 (39.0%)	44 (11.8%)	4 (1.1%)	9 (2.4%)
10. Social science classes	374	4.32	0.82	185 (49.5%)	138 (36.9%)	42 (11.2%)	2 (0.5%)	6 (1.6%)
11. Foreign language classes	373	4.12	0.99	165 (44.2%)	120 (32.2%)	61 (16.4%)	16 (4.3%)	9 (2.4%)
12. Visual and performing arts classes such as art, music, drama	373	4.21	0.95	164 (44.0%)	130 (34.9%)	44 (11.8%)	7 (1.9%)	11 (2.9%)
13. Physical education classes	372	4.22	0.83	139 (37.4%)	121 (32.5%)	48 (12.9%)	7 (1.9%)	2 (0.5%)
14. Technical or vocational classes	367	3.86	1.14	65 (17.7%)	57 (15.5%)	40 (10.9%)	9 (2.5%)	11 (3.0%)
15. Preparation for education after high school	372	4.62	0.66	250 (67.2%)	91 (24.5%)	17 (4.6%)	2 (0.5%)	2 (0.5%)
16. Preparation for employment	370	3.88	1.12	104 (28.1%)	102 (27.6%)	53 (14.3%)	21 (5.7%)	15 (4.1%)
TOTALS:		4.28	0.90	(45.9%)	(31.0%)	(10.6%)	(1.9%)	(1.9%)

Summarizing qualitative data is helpful in exploring processes and understanding human behavior. Blending qualitative with quantitative data provides a good basis for making data-driven decisions.

Open-ended Summarized Data		
Students' "likes" about their school	N	%
Teachers	2	20
Clean and safe	1	10
Activities	1	10
	Total n=10	

Methods of Survey Analysis

Data should be analyzed for a purpose. The common purposes of analyzing survey data are to determine strengths, weaknesses, priorities, and to find solutions.

Some generic steps for analyzing data include the following:

- Develop a first impression of the summary data (frequencies, measures of central tendency, and variation)
- Raise questions about the data
- Examine the summarized data
- Compare data over time, across groups, and across measurements

Some common methods of a more systematic analysis are:

- Snapshot Analysis: One survey, one respondent group, one time period (individual response data or summary data)
- Longitudinal Analysis: One survey, one respondent group, multiple time periods (individual response data or summary data)
- Multivariable Analysis: Multiple surveys (with common items), multiple respondent groups, one or more time periods (individual response data)
- Interaction Analysis: Crosstabulations among survey items (individual response data)

Using data over time, for multiple groups, and with multiple values is the strongest combination of data from which to generate conclusions. Also, using statistical tests to find statistically significant differences between multiple groups and/or multiple times also strengthens conclusions.

You can also download our *Guide to Analyzing Your AdvancED Survey Findings* for details on survey analysis from the AdvancED website www.advanc-ed.org.

Appendix A

Forced-choice items or questions have response sets. Some common ordered response sets for survey items include:

Response Sets for Survey Items Measuring Behaviors Weight or Value				
1	2	3	4	5
Never	Almost never	Sometimes	Almost always	Always
Rarely	Occasionally	In the middle	Often	Very often
Never	Rarely	Sometimes	Often	Almost always
Much less	Less	More	Much more	X
Almost never	Seldom	Sometimes	Frequently	Almost always
No	Yes	X	X	X
Low	Medium	High	X	X
Not often true	Sometimes true	Usually true	Almost always true	X
Below average	Average	Good	Very good	Excellent
Not helpful at all	Not very helpful	Fairly helpful	Very helpful	X
Fail	D	C	B	A

Response Sets for Survey Items Measuring Attitudes and Beliefs Weight or Value					
1	2	3	4	5	6
Strongly disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
Strongly disagree	Agree	Not sure	Agree	Strongly agree	
Very dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Very satisfied		
Not important	Not very important	Somewhat important	Very important		
Much harder	Harder	Less hard	Much less hard		
Really false	Sort of false	Sort of true	Really true		
Very poor	Poor	Fair	Good	Excellent	
Not ineffective	Ineffective	Neither effective or ineffective	Effective	Very effective	
Below average	Average	Good	Very good	Excellent	
Not helpful at all	Not very helpful	Fairly helpful	Very helpful		
Fail	D	C	B	A	
Very boring	Boring	Interesting	Very interesting		