

Research Methods (RSC 701)

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Lecture No.8

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Sources of Knowledge

Research Methods

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Data collection tools



Content of lecture

The Content of lecture 8 Includes the following:

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Writing Survey Questions

Perhaps the most important part of the survey process is the creation of questions that accurately measure the opinions, experiences and behaviors of the public. Accurate random sampling will be wasted if the information gathered is built on a shaky foundation of ambiguous or biased questions. Creating good measures involves both writing good questions and organizing them to form the questionnaire.



Questionnaire design

is a multistage process that requires attention to many details at once. Designing the questionnaire is complicated because surveys can ask about topics in varying degrees of detail, questions can be asked in different ways, and questions asked earlier in a survey may influence how people respond to later questions. Researchers are also often interested in measuring change over time and therefore must be attentive to how opinions or behaviors have been measured in prior surveys.



Questionnaire design

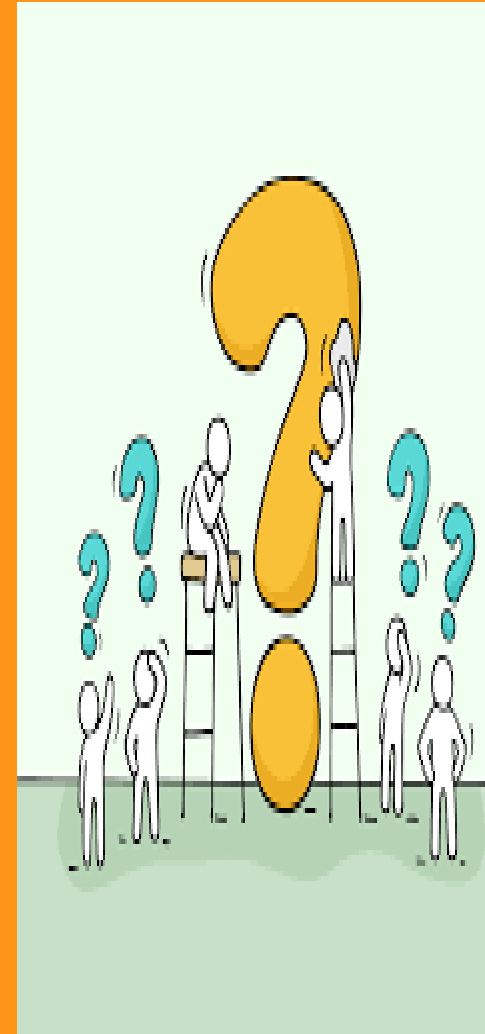
Surveyors may conduct pilot tests or focus groups in the early stages of questionnaire development in order to better understand how people think about an issue or comprehend a question. Pretesting a survey is an essential step in the questionnaire design process to evaluate how people respond to the overall questionnaire and specific questions, especially when questions are being introduced for the first time.

For many years, surveyors approached questionnaire design as an art, but substantial research over the past forty years has demonstrated that there is a lot of science involved in crafting a good survey questionnaire. Here, we discuss the pitfalls and best practices of designing questionnaires



Questionnaire design

- At the Pew Research Center, questionnaire development is a collaborative and iterative process in which employees meet to discuss drafts of the questionnaire several times over the course of its development. We frequently pre-test new survey questions through qualitative research methods such as focus groups, knowledge interviews, pre-testing (often using an online sample, or an optional sample), or a combination of these methods. Researchers use insights from this test to refine questions before they can be asked in a production survey, such as ATP.



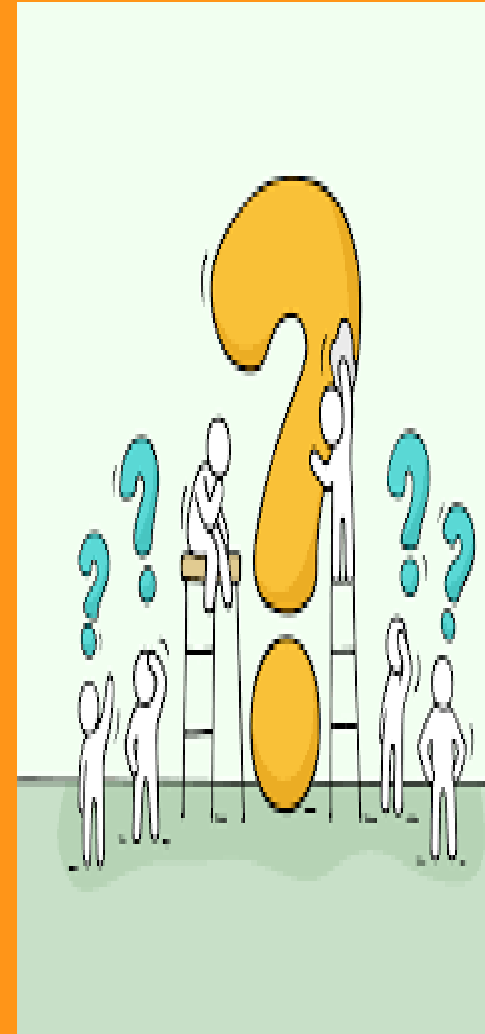
Question development

There are several steps involved in developing a survey questionnaire. The first is identifying what topics will be covered in the survey. For Pew Research Center surveys, this involves thinking about what is happening in our nation and the world and what will be relevant to the public, policymakers and the media. We also track opinion on a variety of issues over time, so we often ensure that we update these trends on a regular basis to better understand whether people's opinions are changing



Measuring change over time

Many surveyors want to track changes over time in people's attitudes, opinions and behaviors. To measure change, questions are asked at two or more points in time. A cross-sectional design surveys different people in the same population at multiple points in time. A panel, surveys the same people over time. However, it is common for the set of people in survey panels to change over time as new panelists are added and some prior panelists drop out. Many of the questions in Pew Research Center surveys have been asked in prior polls. Asking the same questions at different points in time allows us to report on changes in the overall views of the general public (or a subset of the public, such as registered voters, men or Black Americans), or what we call "trending the data".



Measuring change over time

When measuring change over time, it is important to use the same question wording and to be sensitive to where the question is asked in the questionnaire to maintain a similar context as when the question was asked previously. All of our survey reports include a topline questionnaire that provides the exact question wording and sequencing, along with results from the current survey and previous surveys in which we asked the question.



Open- and closed-ended questions

One of the most significant decisions that can affect how people answer questions is whether the question is posed as an open-ended question, where respondents provide a response in their own words, or a closed-ended question, where they are asked to choose from a list of answer choices.



Open- and closed-ended questions

- Researchers will sometimes conduct a pilot study using open-ended questions to discover which answers are most common. They will then develop closed-ended questions based off that pilot study that include the most common responses as answer choices. In this way, the questions may better reflect what the public is thinking, how they view a particular issue, or bring certain issues to light that the researchers may not have been aware of



When asking closed-ended questions, the choice of options provided, how each option is described, the number of response options offered, and the order in which options are read can all Result in how people respond.



In most circumstances, the number of answer choices should be kept to a relatively small number – just four or perhaps five at most – especially in telephone surveys. Psychological research indicates that people have a hard time keeping more than this number of choices in mind at one time. When the question is asking about an objective fact and/or demographics.



Because of concerns about the effects of category order on responses to closed-ended questions, many sets of response choices in Pew Research Center surveys were programmed to be randomized to ensure that choices were not presented in the same order to each respondent. Alternation or randomization means that the questions or items in the list are not asked in the same order to each respondent. Question answers are sometimes affected by the questions that precede them. By presenting the questions in a different order to each respondent, we ensure that each question is asked in the same context as any other question the same number of times (first, last, or any position in between). This does not eliminate the potential influence of previous questions on the current question but ensures that this bias is spread randomly across all questions or items in the list.



Questions with ordinal response categories—those with a primary order (excellent, good, just fair, poor or very favorable, mostly favorable, mostly unfavorable, very unfavorable)—are generally not randomized because the order of the categories conveys Important information to help respondents answer the question. In general, these types of scales should be presented in order so that respondents can easily place their responses along the string, but for some respondents the order can be reversed.



WHAT IS A GOOD QUESTIONNAIRE?

A good questionnaire should be valid, reliable, clear, interesting and succinct.



Valid::A valid questionnaire should ask what it intends to ask. the questions should be phrased in such a way that the respondent understands the objective of the question. To achieve this, the questionnaire should be reviewed by the “content expert” during the pilot test. Any uncertainties and queries should be clarified till the question is clearly understood.



Reliable::A reliable questionnaire should yield the same answer if the same question is posed to the respondent repeatedly in a short span of time. This can be achieved by performing a “test-retest”, administer the same questionnaire to the respondent a second time, and checking for consistency of the answer. Any discrepancy in the answers could be due to a lack of clarity of the questions and this should be reviewed and rephrased



Interesting ::

An interesting questionnaire is more likely to be completed by the respondent and hence yields a better response rate. This requires the researcher to put some thoughts into asking questions that are relevant to the respondent and in a logical sequence.



Succinct ::

A succinct questionnaire asks questions that aim to answer only the research objectives. Any questions beyond the scope of the research should be excluded. It is common for researchers to “cast the net wider” so that they will collect more data, regardless of whether these data are important or not. This usually happens when the researcher has not properly thought through the research objectives. It runs the risk of asking too many questions and the questionnaire runs into many pages.



Smart Survey

Designing your questionnaire has never been easier. Get an online questionnaire up and running in just a few simple steps with Smart Survey.

- Choose from a wide range of question types to create your survey
- Distribute your survey via email and SMS, share via social media
- Analyses your results in real-time, create graphs, export data



How to create an online survey or questionnaire

When creating a survey, it is important to know how to write the questions that will produce the most accurate and valuable results from the respondents. It's not just about writing down all the questions that come to mind.

With the right kind of survey software, plus practice, you'll have an easier time creating the most effective online survey for your needs



Tips for designing online questionnaires

Keep the wording simple

When writing questions for a survey, it's important to make sure they're clear and will be easily understood. You might want to add technical terminology specific to your industry, however, refrain from doing so. There's a good chance that some of your respondents won't understand the meaning behind all of the words, which may lead to confusion. If questions aren't clear enough for your respondents, they may just guess the answers, which will lead to inaccurate data



Only use individual questions

It can be tempting to add two questions into one, however, this is also something that should be avoided. This is because each question might have different results. If an individual only has the option to choose one answer, the results won't be accurate.

Allow respondents to choose "Other"

When creating a multiple-choice questionnaire, it really helps to have "other" as an option for individuals to choose. Some respondents may not see their answer reflected in the choices you made and without the option to choose Other, there is a good chance they will choose any answer. This will result in defective scan data.



Be specific

Always make sure your survey questions are specific. Broad questions can get confusing and unclear. Make sure you explain exactly what you're looking for and specify exactly what you want to know. This is particularly the case when it comes to comment or article box questions. Offer **the option to skip personal questions**

There are a lot of online questionnaires that request personal information from the respondent. Not everyone is comfortable providing this information. If you need to add personal questions into your questionnaire design, allow your respondent to skip the question if they wish to. To do this, you can add an answer that says “prefer not to say” instead of an actual answer. Also, make sure your question is not set to ‘mandatory’. This will make individuals feel better because you won’t be forcing an answer out of them.



Remember your target market

When creating an online survey, it is important to keep your target audience in mind. This will help you use appropriate terminology and ask questions in the most effective way.

Choose the right tool

Smart Survey offers easy to use yet advanced online survey software that requires no technical knowledge to create online surveys. You can create surveys or surveys from scratch or use one of our survey templates. If you have questions about Smart Survey, why not request a demo or get in touch with our friendly support team.



What is content analysis used for?

Researchers use content analysis to find out about the purposes, messages, and effects of communication content. They can also make inferences about the producers and audience of the texts they analyze.

Content analysis can be used to quantify the occurrence of certain words, phrases, subjects or concepts in a set of historical or contemporary texts



In addition, content analysis can be used to make qualitative inferences by analyzing the meaning and semantic relationship of words and concepts.

Because content analysis can be applied to a broad range of texts, it is used in a variety of fields, including marketing, media studies, anthropology, cognitive science, psychology, and many social science disciplines. It has various possible goals:

- Finding correlations and patterns in how concepts are communicated
- Understanding the intentions of an individual, group or institution
- Identifying propaganda and bias in communication
- Revealing differences in communication in different contexts
- Analyzing the consequences of communication content, such as the flow of information or audience responses



Advantages of content analysis

- Unobtrusive data collection

You can analyze communication and social interaction without the direct involvement of participants, so your presence as a researcher doesn't influence the results.

- Transparent and replicable

When done well, content analysis follows a systematic procedure that can easily be replicated by other researchers, yielding results with high replicated.

- Highly flexible

You can conduct content analysis at any time, in any location, and at low cost – all you need is access to the appropriate sources.



Disadvantages of content analysis

- Reductive

Focusing on words or phrases in isolation can sometimes be overly reductive, disregarding context, nuance, and ambiguous meanings.

- Subjective

Content analysis almost always involves some level of subjective interpretation, which can affect the reliability and validity of the results and conclusions.

- Time intensive

Manually coding large volumes of text is extremely time-consuming, and it can be difficult to automate effectively.



How to conduct content analysis

If you want to use content analysis in your research, you need to start with a clear, direct **research question**.

Example research question for content analysis

Is there a difference in how the US media represents younger media represents compared to older ones in terms of trustworthiness?

Next, you follow these five steps.



1. Select the content you will analyze ::

Based on your research question, choose the texts that you will analyze. You need to decide:

- The medium (newspapers, speeches or websites) and genre (opinion pieces, political campaign speeches, or marketing copy)
- The inclusion and exclusion criteria (newspaper articles that mention a particular event, speeches by a certain politician, or websites selling a specific type of product)
- The parameters in terms of date range, location, etc.

If there are only a small amount of texts that meet your criteria, you might analyze all of them. If there is a large volume of texts, you can select a sample.



2. Define the units and categories of analysis

Next, you need to determine the level at which you will analyze your chosen texts. This means defining:

- The **unit(s) of meaning** that will be coded. For example, are you going to record the frequency of individual words and phrases, the characteristics of people who produced or appear in the texts, the presence and positioning of images, or the treatment of themes and concepts?
- The **set of categories** that you will use for coding. Categories can be objective characteristics (*aged 30-40, lawyer, parent*) or more conceptual *trustworthy, corrupt, conservative, family oriented*).



3. Develop a set of rules for coding

Coding involves organizing the units of meaning into the previously defined categories. Especially with more conceptual categories, it's important to clearly define the rules for what will and won't be included to ensure that all texts are coded consistently.

Coding rules are especially important if multiple researchers are involved, but even if you're coding all of the text by yourself, recording the rules makes your method more transparent and reliable.



4. Code the text according to the rules

You go through each text and record all relevant data in the appropriate categories. This can be done manually or aided with computer programs, such as QSR NVivo, Atlas's and Diction, which can help speed up the process of counting and categorizing words and phrases.



5. Analyze the results and draw conclusions

Once coding is complete, the collected data is examined to find patterns and draw conclusions in response to your research question. You might use statistical analysis to find correlations or trends, discuss your interpretations of what the results mean, and make inferences about the creators, context and audience of the texts.



Observation

Observing people interacting with your website or product can be useful for data collection because of the candor it offers. If your user experience is confusing or difficult, you can witness it in real-time.

Yet, setting up observation sessions can be difficult. You can use a third-party tool to record users' journeys through your site or observe a user's interaction with a beta version of your site or product.

While less accessible than other data collection methods, observations enable you to see firsthand how users interact with your product or site. You can leverage the qualitative and quantitative data gleaned from this to make improvements and double down on points of success.



3. Interviews and Focus Groups

Interviews and focus groups consist of talking to subjects face-to-face about a specific topic or issue. Interviews tend to be one-on-one, and focus groups are typically made up of several people. You can use both to gather qualitative and quantitative data.

Through interviews and focus groups, you can gather feedback from people in your target audience about new product features. Seeing them interact with your product in real-time and recording their reactions and responses to questions can provide valuable data about which product features to pursue.

As is the case with surveys, these collection methods allow you to ask subjects anything you want about their opinions, motivations, and feelings regarding your product or brand. It also introduces the potential for bias. Aim to craft questions that don't lead them in one particular direction.

One downside of interviewing and conducting focus groups is they can be time-consuming and expensive. If you plan to conduct them yourself, it can be a lengthy process. To avoid this, you can hire a market research facilitator to organize and conduct interviews on your behalf





Thank you