

Office on Smoking and Health, Health Communications Branch

Sample Questions for Formative Testing of Advertisements

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Introduction

Whether using existing advertisements (ads), or developing new ads (also called “creative”), it is important to confirm through formative testing that the ad is achieving its intended effect with the target audience(s). Research demonstrates that the intended audience’s perceived effectiveness of an ad is a reliable predictor of an ad’s capacity to change intentions and smoking behavior in the target audience (Davis, Nonnemaker, & Farrelly, 2013; Davis, Duke, Shafer, Patel, Rodes, & Beistle, 2017).

This document provides information about sample questions to measure how an ad performs on key attributes of effective tobacco control advertising. Our goal is to provide you, and your marketing agency, with a useful, evidence-based framework that you can use to test ads. For more information on the key attributes of an effective tobacco counter-marketing ad, please refer to the Centers for Disease Control and Prevention’s Office on Smoking and Health’s (CDC/OSH) document, *Considerations for Creating and Placing Tobacco Counter-Marketing Ads*. For CDC-licensed ads developed by state health departments, federal agencies, and nonprofit organizations, please visit CDC’s Media Campaign Resource Center (MCRC) at cdc.gov/tobacco/mcrc.

You can email OSHCommTA@cdc.gov to request a copy of the *Considerations for Creating and Placing Mass-Reach Tobacco Counter-Marketing Ads* guidance document, or formative research questionnaires used by the CDC/OSH to develop and test ads.

How to Use this Document

This document draws from questions used in the field of tobacco control advertising. Some of the measures were designed for a more formal research setting, and others for campaign development. Many of the sample questions in this document were used in the development of CDC’s *Tips From Former Smokers*[®] campaign ads. You will want to adjust to meet your formative testing needs.

The questions described in this document are appropriate for testing different types of ads – cessation, secondhand smoke, counter industry or social norm change – though some are more relevant to a specific type of ad. The questions can be used to develop questionnaires or moderator guides for testing creative early in the development process, and can be administered online, by phone, or in a focus group.

In the early stages of developing new creative, quantitative and qualitative methods can be used for formative testing of messages, concepts, or rough cut ads. Rough cut ads are near-final versions of advertisements with unedited photos or placeholder voiceovers. Quantitative methods such as online surveys can be used to collect information about your target audiences’ reactions to messages, concepts, or rough cut ads. Qualitative methods, such as moderated focus group discussions or individual in-depth interviews, can also be used to better understand which message, concept or new creative is most promising in promoting behavior change. Deciding whether to use a quantitative or qualitative data collection approach can be difficult as both methods have strengths and limitations. [Table 1](#) and [Table 2](#) at the end of this document are from the manual titled *Designing and Implementing an Effective Tobacco Counter-Marketing Campaign* and show the pros and cons of quantitative and qualitative survey formats (CDC, 2003).

It is not practical, or advisable, to use all the sample questions described below; rather, choose the questions that best help you determine if an ad is meeting your objectives (e.g., quit smoking, call a quitline, support smokefree environments, etc.) and conforming with best practices.

MEASUREMENT

The scale listed below, known as a 5-point Likert scale, is a commonly used scale of choices to answer formative survey questions, and can be used with many of the sample questions in this document:

0 = none of this feeling; 1 = a little of this feeling; 2 = some of this feeling; 3 = a lot of this feeling;
4 = a great deal of this feeling

OR

1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree

I. Emotional Response

Generating a strong emotional response is vital to an ad's effectiveness; emotional response should be tested for all types of ads. The response you are seeking will determine what types of questions to ask. For instance, "Why to Quit" cessation ads are generally designed to evoke strong negative emotional reactions, whereas "How to Quit" ads aim to increase confidence in quitting, typically evoking positive emotional reactions. Secondhand smoke ads that are designed to educate people about the health harms of exposure and counter-industry ads are also generally designed to evoke a negative emotional response in the viewer. A sample question used to measure emotional response to ads is provided below. If you are measuring more than one emotion, analyze each emotion separately.

SAMPLE QUESTION TO MEASURE EMOTIONAL RESPONSE

On a scale from 1 to 5, where 1 indicates not feeling any emotion, and 5 indicates feeling emotion with extreme intensity, please indicate how much this ad made you feel:

- Angry
- Afraid
- Ashamed
- Sad
- Hopeful
- Understood
- Surprised
- Trusting
- Motivated
- Regretful

Source: CDC, Formative Questionnaire for Rough Cut Testing of Television Advertisements, 2017

II. Ad Effectiveness

Perceived Effectiveness

Audience assessments of perceived effectiveness (PE) are good predictors of intention to quit and behavior change, and should always be tested. Perceived effectiveness has been used to evaluate ads for tobacco control campaigns at the state and national level. A PE score can quickly give you the sense as to whether an ad will be successful. If you have limited resources for testing, PE measures are the most important to collect.

SAMPLE QUESTIONS TO MEASURE PERCEIVED EFFECTIVENESS

This ad:

- Is worth remembering
- Grabbed my attention
- Is powerful
- Is informative
- Is meaningful to me
- Is convincing

Source: Davis et al., 2017

- Made a strong argument for quitting
- Taught me something new
- Made me stop and think
- Made me feel motivated to try to quit smoking
- Made me feel concerned about my smoking
- Was relevant to me

Source: Wakefield et al., 2013; Brennan et al., 2014

- Made me likely to talk to someone else about this ad
- Made me feel more concerned about smoking around other adults
- Made me feel more concerned about smoking around children

Source: Murukutla et al., 2015

For the first sample question above, respondents assess an ad in terms of the six survey items that measure a respondent's level of agreement or disagreement with statements related to their reactions to the ads. After viewing an ad, respondents are asked whether they agree or disagree with each statement. Each item is scored by the respondent on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The PE score is then calculated as a composite measure by taking the mean of the ratings given to the six statements. A high PE score is predictive of whether an ad will motivate viewers to the desired action. A PE score over 3.00 is acceptable and an ad with a score of 3.5 or higher is more likely to be effective when aired.

Message Acceptance

Message acceptance is particularly important to measure when:

- Developing ads for populations that have not been widely exposed to anti-smoking messages;
- Developing campaigns that adopt a new approach to communicating with the target audience; or,
- Presenting new information about the health effects of smoking.

SAMPLE QUESTIONS TO MEASURE MESSAGE ACCEPTANCE

How much do you disagree or agree with the following statement?

- This ad was easy to understand
- I learned something new from this ad
- I trust the information in this ad
- This ad is believable
- This ad is worth remembering
- I can identify with what this ad says

Is there anything about the ad that is confusing, unclear, or hard to understand?

- Confusing
- Unclear
- Hard to understand

What was confusing, unclear, or hard to understand? {Open End}

Source: CDC, Formative Questionnaire for Rough Cut Testing of Television Advertisements, 2017

III. Argument Strength

Argument strength is particularly important to measure if your ad includes smoking cues, such as images of smoking or smoking-related items (ash trays, cigarette packs, smoke, etc.). These images can elicit cravings in smokers, diminishing the effectiveness of the ad unless accompanied by a strong anti-smoking argument (Kang, Cappella, Strasser, & Lerman, 2009). Measures of argument strength apply just to the core argument in the ad (Zhao, Strasser, Cappella, Lerman, & Fishbein, 2011). This differs from perceived effectiveness, which examines the overall effect of the entire ad.

The core argument is a single statement that distills the line of reasoning in your ad – the explicit and implicit reasons given for not using tobacco. For example “every cigarette you smoke causes damage to your lungs” or “secondhand smoke is a serious health hazard” or “when you die from smoking you leave behind many sad family members who miss you”.

Below is a nine-item scale developed by researchers to measure argument strength (Zhao et al., 2011). This scale is designed for a more formal research setting, but you could include some of the measures in your formative testing of an ad – including them in surveys or in moderated discussion guides.

First, you’ll need to determine the core argument of your ad and distill it into a single statement. You can then test that statement drawing from the sample measures below.

SAMPLE NINE-ITEM SCALE TO MEASURE ARGUMENT STRENGTH

1. The statement is a reason for [target behavior] that is believable.
2. The statement is a reason for [target behavior] that is convincing.
3. The statement gives a reason for [target behavior] that is important to me.
4. The statement helped me feel confident about how best to [target behavior].
5. The statement would help my friends [target behavior].
6. The statement put thoughts in my mind about wanting to [target behavior].
7. The statement put thoughts in my mind about not wanting to [target behavior].
8. Overall, how much do you agree or disagree with the statement?
9. Is the reason the statement gave for [target behavior] a strong or weak reason?

Zhao and colleagues provided the following instructions to develop a single statement that captures the core argument of an ad: “Research assistants familiar with anti-drug ads viewed ads and crafted a verbal description of the argument made by each ad. This description included relevant information from both the visual and verbal components of the ad. Faculty members on the research team did the same thing and produced another set of verbal descriptions. These two sets of descriptions were compared and a final version of the central argument made by each ad was developed by the authors to (a) be comprehensive, (b) be clear and coherent, and (c) be as consistent as possible with the ad’s intent.” (Zhao et al., 2011).

IV. Talkability

Some studies have found that smokers who talked about an anti-tobacco ad were more likely to have thought about or made a quit attempt (Dunlop, Cotter, & Perez, 2014; Jeong, Brennan, Gibson, & Hornik, 2015). Talking about an ad – by smokers and nonsmokers - can extend the reach of the message, and may contribute to larger social norms changes about the acceptability of tobacco use, secondhand smoke exposure or denormalizing the tobacco industry. Exposure to antismoking campaigns prompts discussion about smoking cessation, which can influence intentions to quit and quit attempts (Van Den Putte, Yzer, Southwell, Jan de Bruijn, & Willemsen, 2011).

SAMPLE QUESTIONS TO MEASURE TALKABILITY

How likely would you be to take the following actions in the next 6 months? (smokers)

- Talk to your doctor about quitting smoking.

How likely would you be to take the following actions in the next 6 months? (nonsmokers)

- Call 1-800-QUIT-NOW for information to help someone you care about quit smoking.
- Visit an informational government website, such as www.cdc.gov/tips for information to help someone you care about quit smoking.
- Talk to your doctor about helping someone you care about quit smoking.
- Ask someone to not smoke around you or others.
- Encourage someone you care about to quit smoking traditional cigarettes completely

Source: CDC, Formative Questionnaire for Rough Cut Testing, 2017

Think about all of the advertisements you just viewed and recalled seeing in the past 3 months:

- Did you talk to anyone about any of these ads?
- When you talked about the ads, did the person talking to you about the ads encourage you to stop smoking?

Source: CDC, Evaluation of the National Tobacco Prevention and Control Public Education Campaign, Smoker Questionnaire, 2018

Please indicate how much you disagree or agree with the following statement:

- I would talk to someone else about the ad.

Source: CDC, Formative Questionnaire for Rough Cut Testing, 2017

Communication about dangers of smoking (nonsmokers):

- Have you talked to any family members or friends about the dangers of smoking?
- Have you recommended any family members or friends that smoke to call a telephone quitline?
- Have you recommended any family members or friends that smoke to call 1-800-QUIT-NOW?

Source: McAfee et al., 2013

Table 1: Pros and Cons of Survey Formats

Format	Pros	Cons
Mail		
	<ul style="list-style-type: none"> • Mail can be a cost-effective way to access hard-to-reach populations (e.g., the homebound or rural residents) • Respondents can answer questions when it's most convenient for them. 	<ul style="list-style-type: none"> • Mail is not appropriate for respondents with limited literacy skills. • Expensive follow-up by mail or telephone may be necessary to increase the response rate. • Respondents may return incomplete questionnaires. • Responses can be difficult to read. • Receiving enough responses may take a long time. • Postage may be expensive if the sample is large or the questionnaire is long.
Telephone		
<p>With interviewers using paper-and-pencil questionnaires.</p>	<ul style="list-style-type: none"> • Telephone is appropriate for those with limited literacy skills. • Questionnaires can be more complete. • The sequence of questions can be controlled. 	<ul style="list-style-type: none"> • Potential respondents without telephones can't participate. • Respondents may hang up if they believe the survey is part of a solicitation call or if they don't want to take the time to participate. • Response rates are declining, especially for telephone and Internet surveys.
<p>With interviewer using computer-assisted telephone interviewing (CATI).</p>	<ul style="list-style-type: none"> • "Skip patterns" can be included, which is useful for complex questionnaires. • The need for data entry is eliminated. 	<ul style="list-style-type: none"> • CATI software and computers are required. • Extensive interviewer training is needed. • Time is required to program questionnaire into CATI.

Table 1: Pros and Cons of Survey Formats (Continued)

Format	Pros	Cons
In Person		
<p>Administered by interviewer.</p>	<ul style="list-style-type: none"> • Face-to-face persuasion tactics can be used to increase response rates. • Participants with limited literacy skills can use this method. • The method is useful with hard-to-reach populations (e.g., homeless or with low literacy) or when the intended audience can't be surveyed by using other data-collection methods. • Interviewer can clarify questions for respondents. • More questionnaires are completed. 	<ul style="list-style-type: none"> • Administration is more expensive than self-administered surveys or telephone data collection. • This method may not be appropriate for sensitive issues because respondents may not answer as truthfully in person.
<p>Self-administered:</p> <p>Respondents asked to complete survey at a location frequented by the target population (e.g., during a conference, in a classroom, or after viewing an exhibit at a health fair).</p>	<ul style="list-style-type: none"> • Harder to reach respondents can be contacted in locations convenient and comfortable for them. • The survey can be conducted quickly. • Data can be gathered cost-effectively in a relatively short time. • Selecting an appropriate location can result in an increased number of respondents from intended populations. 	<ul style="list-style-type: none"> • The ability to reach respondents in person at a central location or gathering is required. • Respondents must have adequate literacy skills.

Table 1: Pros and Cons of Survey Formats (Continued)

Format	Pros	Cons
<p>Self-administered on computer:</p> <p>Questionnaire is displayed on a computer screen and respondents key in answers.</p>	<ul style="list-style-type: none"> • “Skip patterns” can be included, which is useful for complex questionnaires. • The sequence of questions can be controlled. • Need for data entry is eliminated, and quick summary and analysis of results are provided. 	<ul style="list-style-type: none"> • Use is not appropriate for audiences with limited literacy skills or those uncomfortable with computers. • Expensive technical equipment is required that may not be readily available or may be cumbersome in many settings. • Respondents must have access to programmed computers and be comfortable using computers.
Internet		
<p>Self-administered on computer:</p> <p>Questionnaire displayed on respondent’s computer screen through a Web site.</p>	<ul style="list-style-type: none"> • “Skip patterns” can be included, which is useful for complex questionnaires. • The sequence of questions can be controlled. • The need for data entry is eliminated, and quick summary and analysis of results are provided. 	<ul style="list-style-type: none"> • Use is not appropriate for audiences with limited literacy skills or those uncomfortable with computers. • Respondents must have Internet access and be comfortable using computers. • Response rates are declining, especially for telephone and Internet surveys. • Samples may not be representative, depending on the sampling approach.

Source: CDC, 2003.

Table 2: Pros and Cons of Formats for Focus Groups and Individual Interviews

Format	Pros	Cons
Face to Face		
Moderator/Interviewer and participants are in one room, usually around a table; observers (members of the research team) are behind a one-way mirror.	<ul style="list-style-type: none"> • Body language can be assessed. • Observers can be present without distracting participants. • If the session is videotaped, it can be shared with others who couldn't attend. • Participants give undivided attention. 	<ul style="list-style-type: none"> • Responders lose anonymity. • The session has higher travel expenses because of multiple locales. • The session may be a logistical challenge in rural areas or small towns.
Telephone		
Moderator/interviewer and participants are on a conference call; observers listen.	<ul style="list-style-type: none"> • The session is more convenient for participants and observers. • Participants can easily include people in rural areas or small towns, as well as the homebound. • Relative anonymity may result in more frank discussion of sensitive issues. 	<ul style="list-style-type: none"> • Nonverbal reactions can't be assessed. • It's more difficult to get reactions to visuals. (They can be sent ahead of time, but you still have less control over exposure.) • Participants can be distracted by their surroundings. • There may be noise interference from callers' environments.
Internet Chat Sessions		
Moderator and participants "chat" while observers read.	<ul style="list-style-type: none"> • A complete record of session is instantly available. • Relative anonymity may result in more frank discussion of sensitive issues. 	<ul style="list-style-type: none"> • The session is useful only for participants comfortable with this mode of communication. • The relatively slow pace limits topics that can be covered. • There's no way to assess whether participants meet recruitment criteria. • Body language or tone of voice can't be assessed. • It's more difficult to get reactions to visual presentations. (They can be sent ahead of time, but you still have less control over exposure.) • Participants can be distracted by their surrounds.

Source: CDC, 2003.

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