

The Use of Online Focus Groups to Design An Online Food Safety Education Intervention

Ashley Bramlett Mayer and Judy A. Harrison

Abstract: In the development of an online food safety education intervention for college students, online focus groups were used to determine the appropriate format and messages. Focus groups are often used in qualitative research and formative evaluation of public health programs, yet traditional focus groups can be both difficult and expensive to coordinate. Online focus groups offer an alternative means of discovering the attitudes and opinions of hard-to-reach populations. Online focus groups were facilitated in a university-supported web-based learning environment (E-Learning Commons) with students at the University of Georgia, and students discussed questions related to food safety and Internet-based education. Focus group transcripts were categorized by responses to each of the questions, and results were reported in terms of frequency. Students identified personally relevant food safety messages, preferred delivery tools and strategies for food safety education, and known sources for food safety information. Online focus groups were found to be an effective and inexpensive means of determining students' preferences for learning about food safety using the Internet and social media. Results from the online focus groups were used to design a social media-based food safety education intervention to improve young adults' food safety attitudes, practices and knowledge.

Introduction

Focus groups have long been used for qualitative research to explore the attitudes of populations on a variety of concepts and programs (Kenny 2005). Online focus groups provide an alternative outlet to reach audiences who are unable and/or unwilling to participate in traditional face-to-face focus groups (Fox and others 2007), such as young adults. Young people tend to have erratic schedules, some limited access to transportation, and may be uncomfortable meeting a group of strangers at an unfamiliar location. These barriers present challenges in conducting traditional focus groups. In the lives of young adults, the Internet is a primary means of information gathering, entertainment, and communication. Synchronous online communication is commonplace for young adults in chat rooms and through instant messaging and social networking sites. Chat rooms still carry some stigmas related to predatory adult interactions with young people, so online focus groups should be held in sites that are familiar to the audience and are considered safe by the audience. Online focus groups allow researchers to recreate the same immediacy and expression found in traditional focus groups (Fox and others 2007). The moderation of online focus groups requires an individual with fast typing skills and some experience with this type of real time discussion.

Online focus groups move fast, and allow individuals to defy the conversational "turn-taking." Group size should be small to allow for a conversational style discussion, and very large groups would cause problems for moderating. The online nature creates a sense of anonymity in the focus groups that allows individuals to communicate more candidly.

Limitations to this type of communication include limited non-verbal cues, yet young adults tend to use emoticons and abbreviations to express general feelings (Fox and others 2007). Contributions may be more superficial than those offered in a traditional focus group as the pace is faster and more informal. Research has found that synchronous online focus groups are both insightful and engaging and are useful tools for qualitative research (Fox and others 2007). Researchers suggest allowing target audiences to choose the appropriate communication channels and media for delivering messages (Jacob and others 2010). Online focus groups allow the opportunity to have an open discussion about how individuals prefer to receive messages as well as their preferences for different types of media. Research suggests that tailored messages are more effective than traditional health information strategies (Jacob and others 2010).

Web-based learning communities provide the tools to facilitate online discussions (Kenny 2005), and these websites are generally easy to use and available to use in academic environments. As similar types of programs are available in most university settings, web-based learning communities provide an inexpensive means for conducting focus groups. In addition, data collection is simplified in an online setting as all responses are recorded in the chat transcript, and error in reporting of responses is minimized.

MS 20120094 Submitted 1/17/2012, Accepted 4/18/2012. Authors are with The Univ. of Georgia, 204 Hoke Smith Annex, 300 Carlton St, Athens, GA 30602, U.S.A. Direct inquires to author Judy A. Harrison (E-mail: judyh@uga.edu).

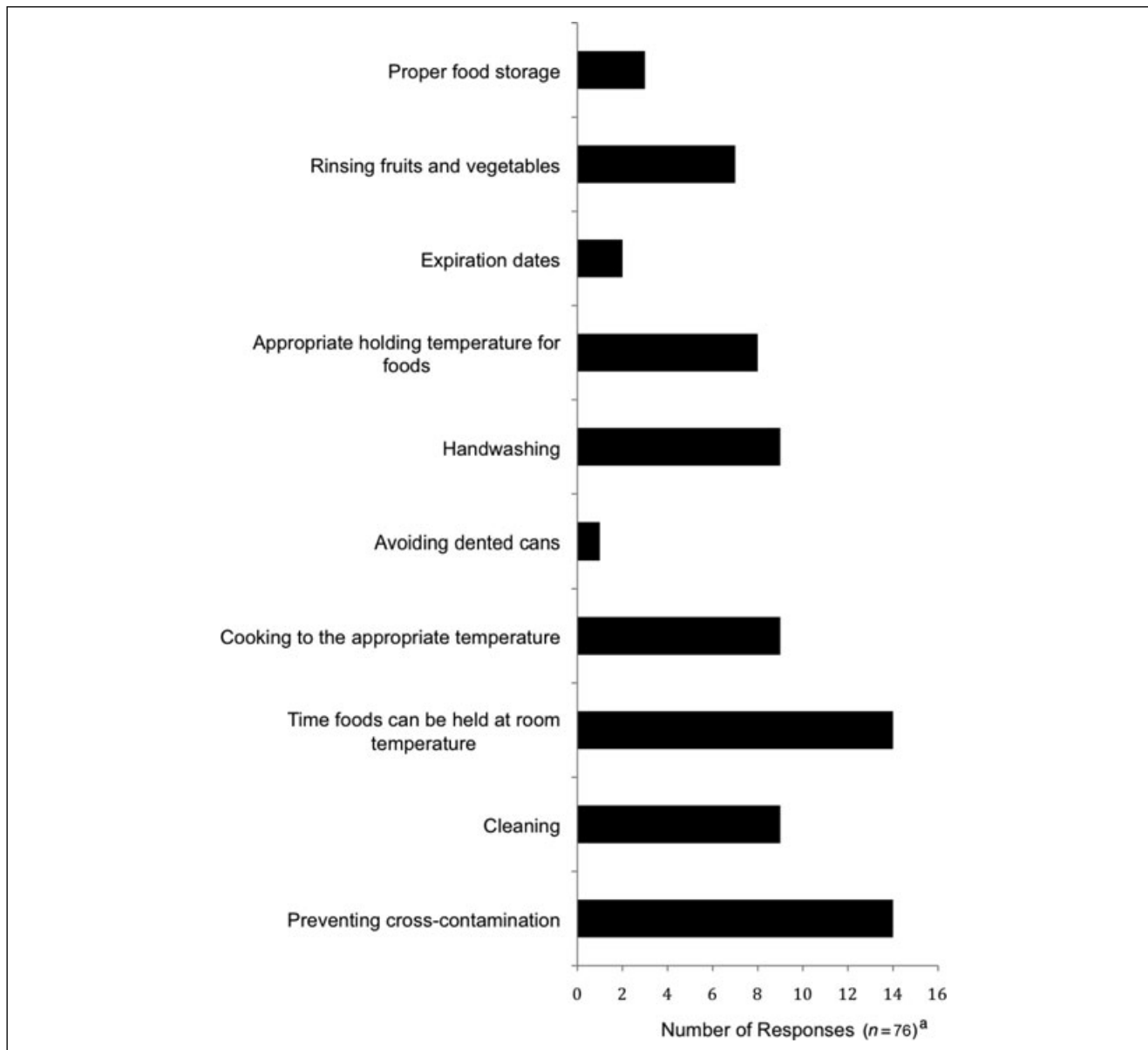


Figure 1—Food safety messages identified by college students as being important.

^a*n* = The number of responses for each question posed. Participants were allowed to make multiple responses for each question. Responses were categorized into the themes presented in the figure.

An increasing number of Americans look to the Internet as a source for food safety information, and this trend is likely to continue (Jacob and others 2010). Students have indicated interest in receiving food safety information through electronic media, and nutrition education interventions have shown that online materials were “more thoroughly read, recalled, and viewed as personally relevant as compared to traditional, print-based materials” (McArthur and others 2007; Park and others 2008). Communication in an online forum must be persuasive, as persuasive messages can provide individuals with internal cues to change their behaviors (Cassell and others 1998). Persuasive messages are interesting to the audience, solicit feedback from the audience, and encourage. Food safety messages should be clear, persuasive and personally relatable (Jacob and others 2010). The objective of this research was to determine the appropriate format and messages of a social media-based food safety education intervention for college students using online focus groups.

Materials and Methods

Online focus groups were conducted in the summer of 2010 to determine the appropriate food safety messages to include along with preferences for how this information should be presented in a social media environment (Mayer and Harrison 2012). Participants in the focus groups were students in an introductory to foods and nutrition course at the Univ. of Georgia, and the class was visited to advertise the opportunity. Participants were also recruited via E-Learning Commons (ELC) messages and announcements. ELC is a learning management system used at the Univ. of Georgia, which provides an online classroom environment for each course. Extra credit was offered for participation in the online focus groups; and as per the requirements of the Institutional Review Board, a separate task for extra credit was available for those who did not wish to participate in the study. For the online focus group participants, a consent letter was posted on ELC as an assessment that was required for participation, and in the assessment, students

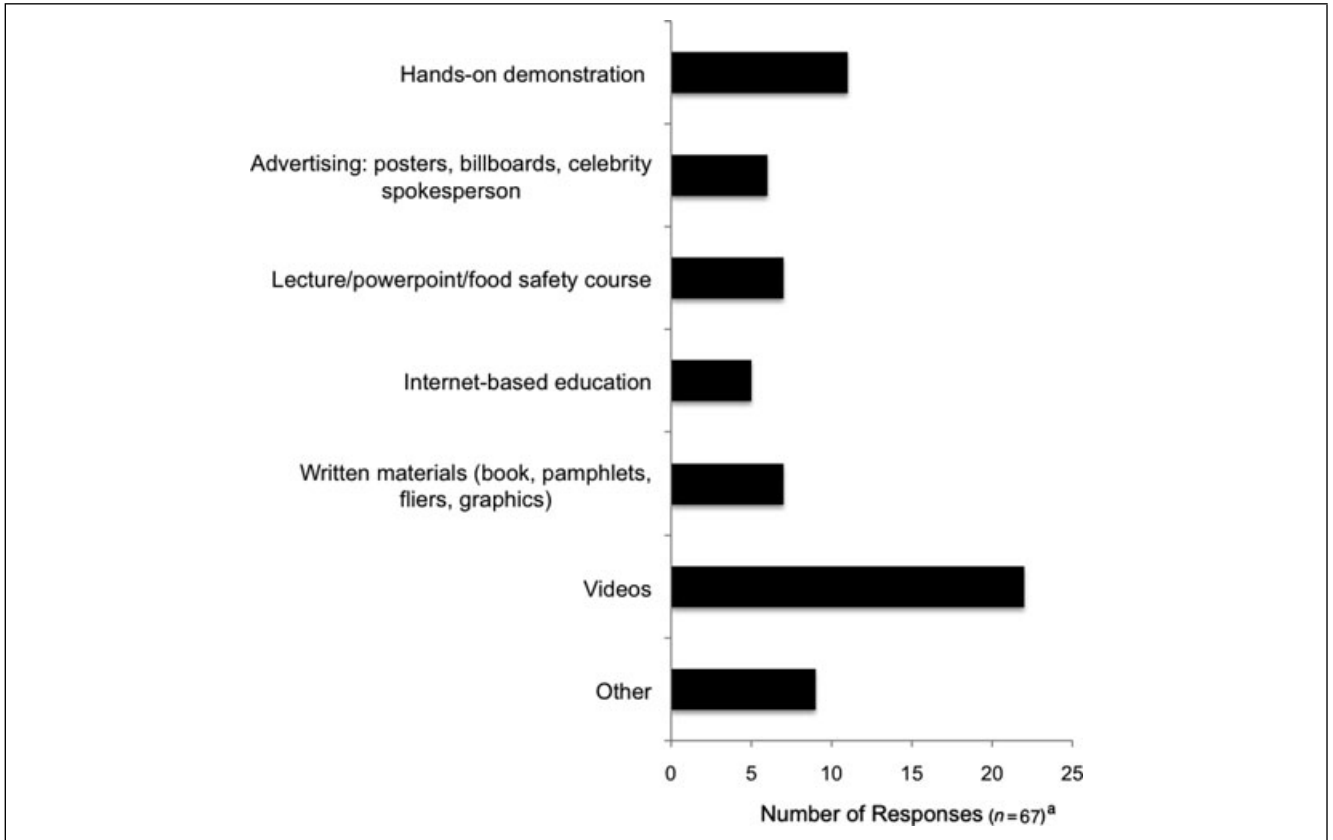


Figure 2—Methods of delivery identified by college students as preferred for obtaining food safety education.
^a*n* = The number of responses for each question posed. Participants were allowed to make multiple responses for each question. Responses were categorized into the themes presented in the figure.

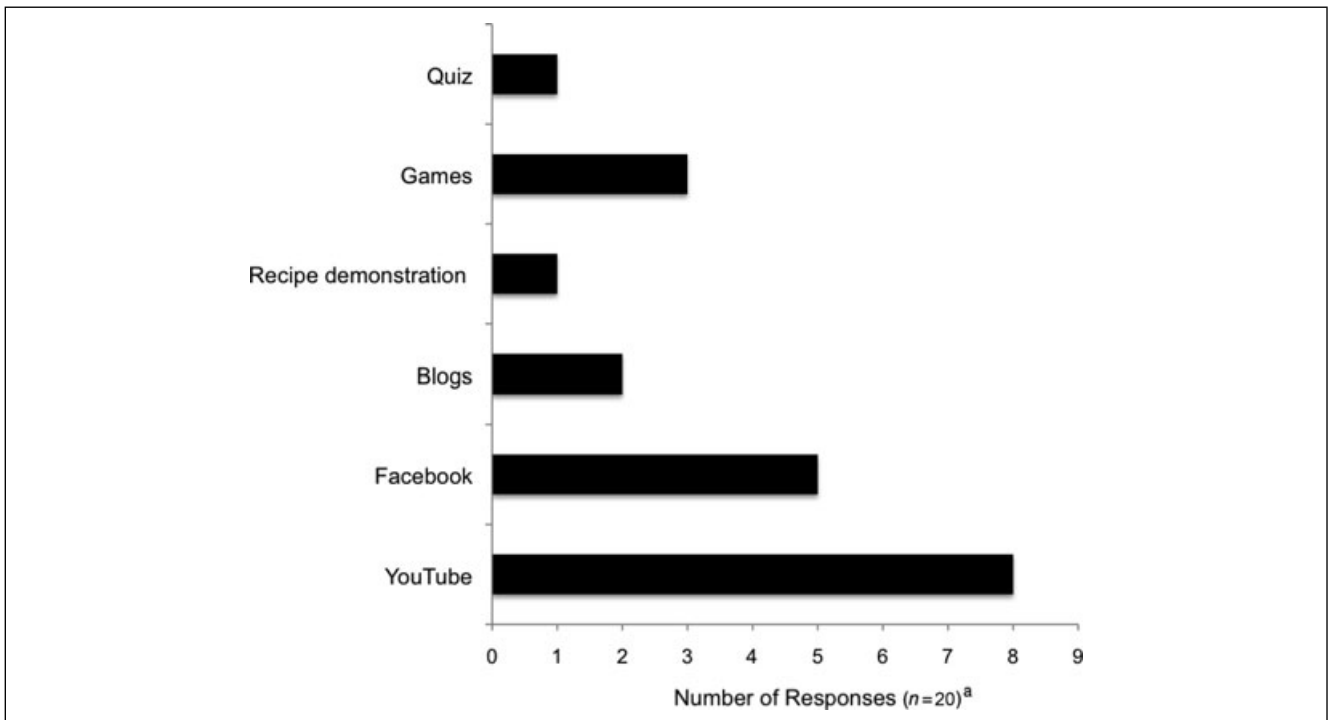


Figure 3—Effective tools for presenting food safety information via social media as identified by college students.
^a*n* = The number of responses for each question posed. Participants were allowed to make multiple responses for each question. Responses were categorized into the themes presented in the figure.

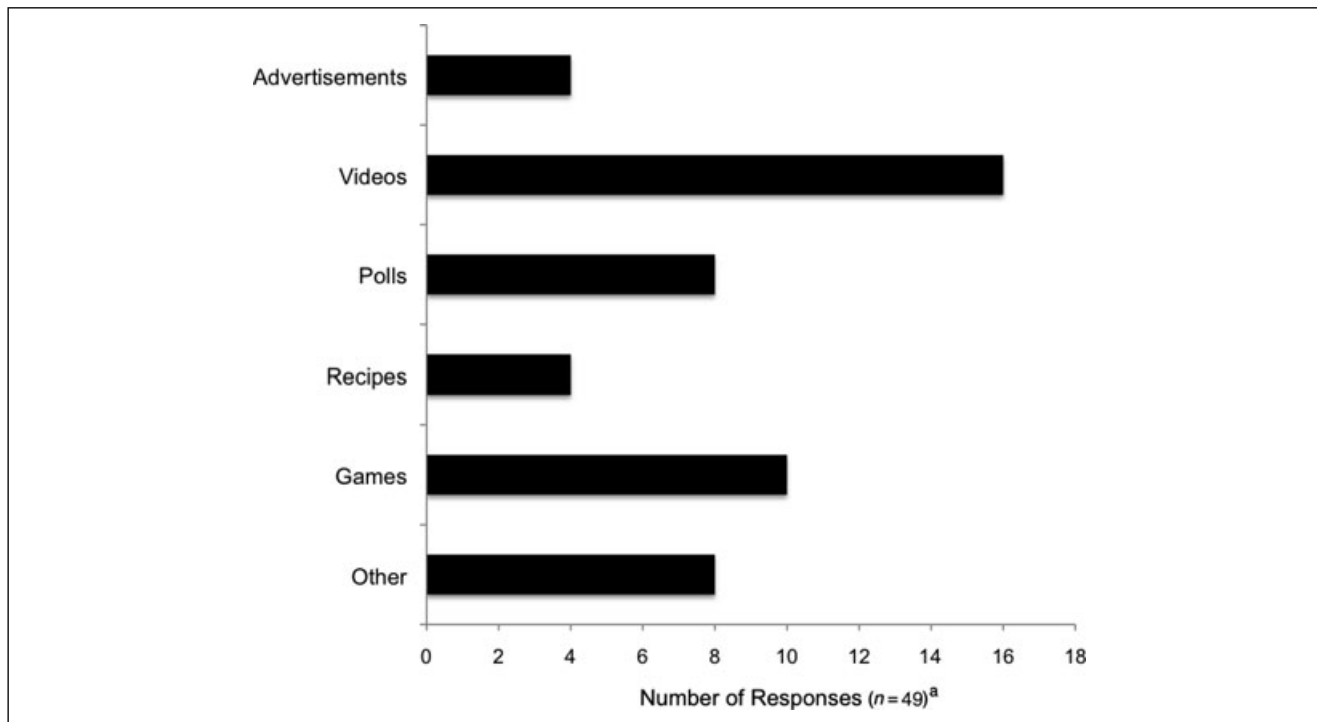


Figure 4—Preferred methods for food safety education using a Facebook fan page as identified by college students.
^a*n* = the number of responses for each question posed. Participants were allowed to make multiple responses for each question. Responses were categorized into the themes presented in the figure.

selected the group time that they were available to participate. Students were asked to participate in online focus groups administered using the chat room on ELC. Four online focus groups took place in the evening hours on both weekdays and weekends, and interested participants were all able to find a day and time that met their needs. Students in the focus groups had already received a food safety lecture and were somewhat familiar with safe food handling. A script was created as a moderator's guide, and students were first introduced to the focus group and given a brief synopsis of the types of questions to be asked. Students were encouraged to answer freely, and the moderator stated "Remember when answering all these questions that there are no right or wrong answers, I just want to know what you think" at the beginning of the focus groups. Participants were additionally encouraged to answer each question and stay engaged in the chat until the end of the questions. Students were allowed to make multiple responses to each question, as this is how the communication would potentially flow in a traditional focus group. The opening question invited participants to look back at their food safety lecture and identify the safe food handling practices that were most important to them personally. Students were subsequently asked their ideas for disseminating food safety information and for communicating the key food safety messages: clean, separate, cook and chill. Students were also asked about their experiences with education in a social media environment; specifically, how they felt social media could be used for education. Students were asked for their opinions on recipe demonstrations and Facebook fan pages; additionally students were asked to identify the types of educational messages that they felt would work best in a social media environment. Finally, students were asked what sources they would use to look for food safety information. The moderator's guide also included potential follow-up questions depending on students' responses, and the

same moderator was used for each of the four sessions. At the conclusion of all focus groups, the moderator reviewed the transcripts and common themes were identified. If a participant agreed with another participant's comment, their agreement was also counted as a response. Frequency of themes was recorded using Microsoft Excel 2007 (Version 12). The outcomes of the focus groups were used to help design the curriculum for a social media-based food safety education intervention for college students.

Results

A total of 38 students participated in the four online focus groups (Mayer and Harrison 2012). All participants were enrolled in a food and nutrition course and had received a food safety lecture. Students answered questions in the form of open-ended responses, and some students had more than one response to each question. College students identified several food safety messages as being personally important (Figure 1), participants described "preventing cross-contamination" and "time foods can be held at room temperature" most frequently. Videos were the most preferred delivery method for food safety education (Figure 2), and YouTube was most frequently identified as an effective tool for food safety education using social media (Figure 3). Videos were also identified as the most preferred method for food safety education on a Facebook fan page (Figure 4); games, polls, recipes, and advertisements were commonly identified as well. When asked about where they would go to access food safety information, most students identified Internet-based resources such as: Google (13), Wikipedia (1), YouTube (5), Blogs (1), Discovery Health (1), and the Internet in general (13). Food Network (7), medical professionals (4), print-based media (4), and family (7) were also identified as potential sources of food safety information.

Participants were asked how they felt about integrating food safety education into a recipe demonstration and 37 of the 38 students felt this would be an effective means for delivering food safety education.

Conclusion

Involving college students in online focus groups allowed them to better define the type of intervention that would work best for a college population. Food safety messages that students identified as being important were highlighted in videos and wall postings in the resulting Facebook-based food safety education intervention (Mayer and Harrison 2012). Videos and YouTube were frequently identified as a preferred delivery method for food safety education; therefore, four food safety videos were developed as a part of a social media-based intervention to educate students. Recipe demonstrations were concluded to be an effective means for the delivery of food safety education, and one video was developed as a recipe demonstration focusing on the safe handling techniques integral to the recipe (Mayer and Harrison 2012). The Internet, various websites and search engines were most frequently identified by students in the focus groups as sources to obtain food safety information, and this finding highlights the need for food safety educators to provide reliable information via the web. The Food Network was also cited as a source of food safety information, and this presents both a cause for concern and a need for additional food safety education because studies have shown that food safety errors occur frequently in television cooking shows (Mathiasen and others 2004). Content analysis of 49 Food Network episodes revealed 460 poor food-handling incidents compared to 118 positive food safety measures (Irlbeck and others 2009). Food safety educators can integrate food safety messages into recipe demon-

strations allowing them to attract and entertain audiences, yet teach at the same time. Overall, online focus groups were found to be an effective and inexpensive means of formative evaluation for program development. These groups allowed researchers to segment the population and develop a focused, comprehensive educational program that succeeded in improving college students' food safety knowledge, attitudes, and behaviors (Mayer and Harrison 2012).

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