

Using Google Forms for Medical Survey: A Technical Note

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ABSTRACT

Survey is an effective way of collecting data from a large sample within a short time. Due to increased use of digital medium, online survey is gaining popularity among researchers. It enables the surveyor to collect data from any corner of the world. Though the response rate is lower than physical survey, online survey has several advantages. Hence, we felt the necessity of sharing the basics of creating an online survey with budding researchers. Google form is an online survey platform which provides the service of creating survey forms, receiving responses and analysis of data free of cost. We used this platform to describe an example of conversion of a physical questionnaire to an online form. Hope this miniature technical guide help the readers to know the basic skills to create a form online for their future studies.

Key words: Data collection, Free survey, Online survey, Questionnaire, SurveyMonkey.

INTRODUCTION

Survey is an essential tool for many medical researchers. Properly designed surveys may help in gathering information from a large sample within a short time.

^[1] With advancement of the use of electronic mail and other online social websites (e.g., Facebook, WhatsApp), online surveys are now trending for medical surveys.^[2] Though the response rate is low in online surveys,^[3] there are several advantages of conducting a survey online over the offline survey. A huge number of target respondents can be reached via email and other social networks. Relatively less time, less manpower, and less expense are other potential advantages.

Google forms, a free online survey platform,^[4] can be utilized by medical professionals for conducting surveys.^[5] Previously, we conducted a survey on Google forms and found it feasible to collect data from medical professionals.^[6] With this experience, we felt that the procedure of converting a printed questionnaire to an online form would be helpful for researchers who would like to conduct survey online.

With this context, the aim of this article was to provide a simple technical guide on using Google forms.

MATERIALS AND METHODS

We are writing this article assuming that the reader is well conversed with browsing internet on any browser (e.g., Mozilla Firefox, Opera, Microsoft Edge) and has a Google account (having Gmail account entitles a user to use all Google products). Those who do not have a Google account may open it from the link: <https://accounts.google.com/SignUp?hl=en>

Materials

A truncated version of a printed survey questionnaire is shown in Figure 1. We would like to convert it in an online form. The content of the questionnaire had the following parts:

1. Title of the questionnaire
2. Name of the respondent
3. Sex of the respondent
4. A multiple choice question
5. A short answer type question

For converting this content to an online form, we used a personal computer with Intel Pentium Processor T3400 with a clock rate of 2.16 GHz, 2 GB RAM, and Windows 7 operating system. The computer was connected to the internet. For browsing web pages, Mozilla Firefox (Version 61.0.1) was used. Google forms software (i.e., the website) requires minimum configuration of the computer. Researcher can use their available personal computer, tablet or even mobile phone to create the form on the web page with any available browser.

Methods

First we browsed the website <https://docs.google.com/forms> on internet browser. After logging in on the website, the procedure we followed for generation of the questionnaire is described in steps 1 to 12. For screenshots of the webpage, step 1 - 6 are shown in Figure 2 and step 7 - 12 are shown in Figure 3.

1. For starting a new form, the "+" sign (Start a new form) was clicked
2. Survey title (Your views on poster presentation) was typed on the field designated as "Untitled form"

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Survey

Your views on poster presentation

> Your name:

> Sex: (put tick mark) Male
 Female
 Other

> Circle on your opinion number:
Q1: Posters are visually attractive
(1) Strongly agree
(2) Agree
(3) Neither agree, nor disagree
(4) Disagree
(5) Strongly disagree

> Share additional information

Figure 1: Example of a printed questionnaire.

3. 1st question (Your name) was typed on the field “Untitled question”
4. “Short answer” was selected from drop down menu for response option
5. Clicked on the “+” sign on the right side (Add question) to add 2nd question (Sex(choose an option))
6. “Checkboxes” was selected for response option from the drop down menu. “Male, Female, and Other” were added by clicking “Add option”
7. Clicked on the “+” sign (Add question) to add the 3rd question
8. Statement (Posters are visually attractive) was typed and “Multiple choice” was selected for response option
9. Response options were added by clicking “Add option”
10. After clicking “+” sign (Add question), 4th question (Share additional information) was typed and “Paragraph” was selected for response
11. After completion of the questionnaire, clicked on the “Send” and then clicked on the “Link” button.
12. That generated the survey link and it was copied for sharing via email or social messengers

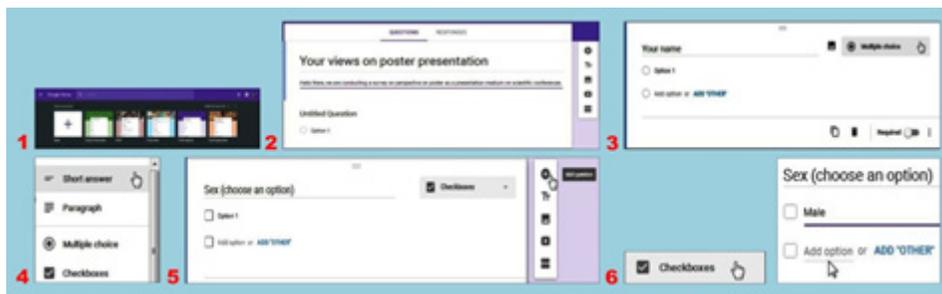


Figure 2: Method of creating online questionnaire in Google forms from the printed questionnaire (step 1 – 6 of “Methods”).



Figure 3: Method of creating online questionnaire in Google forms from the printed questionnaire (step 7 – 12 of “Methods”).

The online version of the questionnaire (i.e., form) as viewed on internet browser is shown on Figure 4.

DISCUSSION

This example of creating a new form on Google forms provides only the basics of creating a form with 4 types of response options. There are more types of response options (e.g., linear scale, multiple-choice grid) available to choose from the drop down menu according to necessity. There is an option to add “Form description” below the space for title of the form. This space can be used for describing the aim and objectives of the survey. This space can also be used for statements of informed consent for biomedical surveys.

If any question of the questionnaire is must to answer, researcher can set this attribute by selecting the “Required” button on the right lower corner of the question. If the respondent does not answer the question, the form cannot be submitted. In addition of providing free survey platform, Google also helps the user by analyzing the responses. This can be accessed by the creator of the form by clicking “Responses” from the top of the form. A spreadsheet can also be created for personal use and further analysis of the data. This option is available on the top right corner (green spreadsheet symbol) when the user is on response page.

New researchers can make a form on trial basis and test the form by themselves from a different device to test any flaws. Furthermore, they can distribute the links with colleagues or target population. This can

Your views on poster presentation

Hello there, we are conducting a survey on perspective on poster as a presentation medium on scientific conferences.

Your name

Your answer

Sex (choose an option)

Male

Female

Other

Q1: Posters are visually attractive

Strongly agree

Agree

Neither agree, nor disagree

Disagree

Strongly disagree

Share additional information

Your answer

SUBMIT

Figure 4: Online version of the survey questionnaire as shown on Google forms website.

serve as a pilot study. They can also conduct a cognitive interview with the respondents to know the level of difficulty faced or their understanding on the content of the survey.

In this article, we described a popular survey platform which is free to the users. There are several other survey platforms which provide custom made service to clients according to their need. A comparative list of premium survey service provider can be accessed from the article by Schindler E in PC Mag.^[7]

Limitations: Only a portion of a questionnaire was presented in this article. The presentation was made simple by only describing the procedure for a particular example. This may not be sufficient for many of the readers. Ethical issues of online data collection and data security were beyond the scope of this article. These topics would be discussed in any future article.

CONCLUSION

Google forms provide visually guided steps for creation of survey questionnaire online. This free service can be utilized for biomedical survey. This technical note would help the beginners to start creating their own survey questionnaire online.

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