
Tools and Techniques of Data Collection and Analysis Google Forms: An Advanced Tool of Data Collection

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1. Introduction :

Research is a continuous process. Its goes always formally informally, to find answers to the questions. The quality of the results depends on the quality of data collection tools and research procedures which is accepted by researcher. The procedures and tools are changing as new trends arrive and established.

As the technology is prominent in every aspect of life, no wonder it comes in research field too. Technology can make research procedure more familiar and objective. It can save time, efforts and money of the researcher. So advance tools should be used in research procedure.

2. Survey:

Survey is a descriptive method of research. In the survey researcher collects data from large number of informants. For the purpose he prepare a tool e.g. questionnaire and analyze it to see the mass trend.

‘The Survey method gathers data from relatively large number of cases at particular time. It isnot concern with the characteristics of individuals as individuals. It is concerned with the statistics that results when data are abstracted from a number of individual cases.’ (Best&Kahn 2006)

Sample size is bigger in survey method comparatively. Geographical scope may be vast in survey. So researcher need to travel across the sample area. Technology may support here to overcome few of the difficulties. Google form is the tool by Google to prepare, send and analyze the questionnaire.

3. Google Forms Concept & Features/ Facilities:

Google Form is a sister project of internet giant Google. User needs Google account to use the Google Forms. It is an online survey tool.

Definitions: Google form is free web based application in which documents and spread sheets can be created, edited and stored online. Files can be accessed from any computer with an Internetconnection and a full-featured Web browser. Google form is a part of a

comprehensive package of online applications offered by and associated with Google.- <http://whatis.techtarget.com/>

Google Form is one the tools available from **Google** Docs collection. They can be a useful tool to help you plan events, send a survey, give students a quiz, or collect other information in an easy, streamlined way.

– <http://webtoolsportfolio.wikispaces.com/>

Google forms are useful to create a questionnaire, to send, to receive responses, to analyze and share. The procedure is very user friendly. Created questionnaire can be sent to email or social networking account. Respondents' responses revert back to a sender. Sender not only receives individual responses but also get cumulative data received from all respondents. It is done simultaneously.

4. Steps to Create Google Form:

User needs Google account to make use of Google forms, an online survey tool. He needs to log on [http:// forms.google.com/](http://forms.google.com/) on personal computer. The Google Doc App for smart phones and tab are available on **Play Store**, which should be downloaded and logged in to use.

I- To Prepare Questionnaire –After clicking on new survey, user needs to start with preparing questionnaire. There are many designs and backgrounds are available, any of the can be selected which is suitable to the content and nature of the Survey. The title of the survey file should be given e.g. 'A Survey for language teachers'. In the next step user should give title to the questionnaire. The description of the questionnaire can be given below the title. Essential instructions to the respondent can be included in the description. .

In the second section, a researcher should start to type questions as per plan. After typing a question, he should decide the type of data in what the answer should be given i.e. Short answer, Paragraph, Multiple choice, Check box, Drop down, linear scale, Multiple choice grid, Date and Time. Then researcher should provide choice or options if required. The question can be made compulsory or optional. If it is made compulsory, respondent has to answer the question. He can't see next questions unless he answers the essential question. Questions can be grouped and divided into sections. Each section can be titled separately. Images and videos can be included in questions and answers. Help for each question can be given in the Hint section.

All questions can be edited, deleted and reshuffled with the sequence in any phase of the survey.

II-To Send Questionnaire to Respondents– Once the questionnaire is finalized then researcher can send it to respondent via email, **Google+**, **Facebook**, **Twitter** or copying link and sharing via **Whatsapp** like messengers. Researcher needs to add subject and the purpose of the survey. Researcher should decide few things before sending i.e. one respondent can send how many responses, should the editing facility given to respondent. Researcher can give confirmation message to respondent after submitting a questionnaire e.g. Thanks giving. The final date of the submission of the form should be mentioned in the message.

The link can be sent to many respondents at a time. It can be sent many times as researcher willing to. Before sending to respondent the same can be sent to mock respondent and a pilot study can be done. The feedback can be used to make questionnaire objective and reliable. Same procedure should be followed for reliability and validity as printed questionnaire.

III-To Receive the Responses- Once the form is sent researcher should take follow up. He should speak with them and modifications should be done if necessary. As responses given

by respondents the data starts appearing along with form. So researcher can keep track the responses helpful in progress.

The survey can be closed by date and reopened by a researcher.

IV-To Analyze the Responses- As responses are received they are analyzed simultaneously. Researcher doesn't need to analyze it. Analysis is done by Google form in text, list, table and graphs. He can copy the analysis and paste the research report.

V-To View and Manage Responses –after closing the survey on last date, researcher gets readymade analysis of it. He can see individual responses and summary too. The summary can be saved in spreadsheet which can be downloaded for further process if required. The responses can be printed and even deleted too. The form can be shared with someone else with a condition that he should be Google account holder. If researcher shares the data and a form with a guide, he can directly make corrections in the form i.e. questionnaire.

5. Google Forms v/s Printed Questionnaire :

- Google forms are easy to prepare because format is ready made provided by Google whereas researcher need to develop the format and technical setting his own.
- Forms can be edited any phase of the survey and printed can't be edited once it is circulated.
- Forms have wider geographical scope than printed one. It can be sent in seconds in any part of the world by internet. Printed questionnaire can be circulated personally, by post or by hand which has lots limitations of time and geography.
- Google forms is money saving. Its free facility by Google. Typing, printing, travelling, posting etc. expenses are required for printed questionnaire.
- Data analysis is automatically done in the Google forms which save efforts and time for the researcher. For printed questionnaire coding-decoding , arranging, calculations, item analysis, tabulations etc. rigorous should be followed for data analysis. The creation of charts for presentation of summary is also should be done separately.
- If researcher wants data triangulation, he can include questions in the same form and can send to different informants which will be analyzed automatically in comparative form. E.g. same questions for students, parents and teachers can be sent for data triangulation. In case of Printed questionnaire researcher need to catch each informant to get it filled and again data analysis of each and triangulation will be tedious job.
- Google forms are handier than printed since it can be operated on personal computers, tabs and smart phones too.
- Data is always secured on Google drive.

6. Limitation of Google Forms :

- Its an online and web based application, so it can be hacked or virus can infect anytime. By infecting main form, the hacker can enter in the emails of all respondents.
- Google forms can't be saved by respondents.
- The authenticity of respondent is less, because any one can give response on the behalf of expected respondent.
- Google forms can be sent only to online users. It is not useful for non internet users and researcher.
- If backup is not taken researcher may lose the data.
- Researcher who is not so techno savvy, can't use anymore or cannot use the Google forms properly.

7. Conclusion :

Since it is a techno age and technology is influencing all the field of life, education and research can't be isolated from technology. If ICT tools like Google form are used in research, his energy can be used for quality of rest of the research procedures. Technology not only saves time, energy and money of a researcher but gives accuracy and quality in the research. So, researcher should use the advanced tools like Google Forms to ensure the quality and accuracy of the research.

Reference

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