

Pro Motives behind Research Survey Reflecting on Some Procedures of Data Assortment

Ilker Etikan^{1*}, Kabiru Bala², Daniel D. Mom³, and Ali D. Tama⁴

¹Associate Professor of Biostatistics, Department of Biostatistics in the Medical Faculty, Near East University, Cyprus

*Corresponding author: Ilker Etikan, Associate Professor of Biostatistics in the Department of Biostatistics in the Medical Faculty at the Near East University, Cyprus, E-mail: ilker.etikan@neu.edu.tr

Received Date: 10th December 2018 Accepted Date: 03rd March 2019 Published Date: 07th March 2019 Citation: Ilker Etikan (2018) Pro Motives behind Research Survey Reflecting on Some Procedures of Data Assortment. Enliven: Biostat Metr 5(1):001.

Copyright: 2018 Prof. Dr. Ilker Etikan. This is an Open Access article published and distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited

Abstract

The researcher in this note yield effort to look at survey problem and how to use it to realize the aim of any research being generated from targeted audience, the write-up also will be achieved by considering little about some methods of data collection taken advantage surely on questionnaire design, since questionnaire serves as the basic instrument for data collection especially when it comes to understanding human behaviors and their interactions in society. Similarly the investigator remains focused on the abuse of using questionnaire by reminding and directing the users to make sure that expert should be consulted and involved so that the research questions, objective and hypothesis achieve the purpose intended for the designing of the questionnaire and the research in general. The researchers also pointed and discourage people from copying and repeating the same mistake from past work or authors. However the writer gave confident by assuring that we are in software and digital era, professional can simplify, code, and transform any form of response questions for easy analysis, following the rules and regulations of analysis, since in analysis you cannot tell the data what to do, the data will be the one to tell what to do. When the above mentioned accurately followed and established, it foretell and expresses the behavior of human beings, considering its vitality which are the most unpredictable stuff in the world.

Introduction

The background in social sciences focused mainly to distinguished between the traditional literature and general critical problem, from all indications, social sciences use target viewers for any conduct of it research survey, this can be generated by using either a sample or census which questionnaire serve to be paramount. Generally a survey can be conducted either orally or in written format since the conduct is used to measure, explain, or classify an individual or group of people. In spite of this the survey uses a sequence of questions or statements that is termed as items or interview for measuring self-reports or replies that is needed from respondent. Sometimes we refer to survey as a scale then questions or the statement in the survey is term as the items. The outcomes of any census or sample resulting from questionnaire survey through the contribution of any academician contribute immensely to the policy of any government.

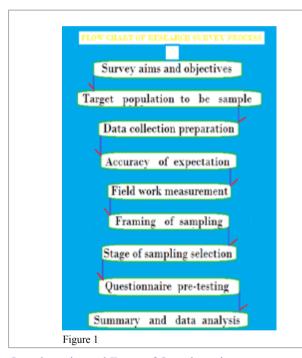
As observed by [1]. Where he stated that. Questionnaire as text comprising questions with other forms of element design to request appropriate information for analysis, in view of the fact that application of the use of questionnaire is realistic in both research survey, experimental survey and any other modes of observation. The questionnaire can be seen as a set of

questions been prepared leaving a space for someone to complete as an answer, since when the questionnaire is properly constructed and design will tell good about the researcher aim or otherwise.

Reflection of Research Survey Assessment on Census and Sample

The term survey mainly has to do with scanning, observation, studying, investigation and so on for the purpose of collecting information about a particular event or purpose. Any discovery or investigation attempts in knowing exactly what is happening in the population is termed as survey, but it will not be achieved without knowing what type of questionnaire and structure that will be suitable to use, in respect of social science which is of paramount important. The researcher especially when using open question during the research process has no control or influence over his respondent. The surveyor has two options to apply during the conduct of the survey depend on the nature and interest of the survey which can be executed either by going with the population (census) or sample (part) type. Generally census

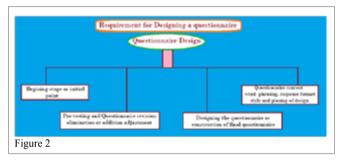
survey is the act of survey that count the totality or the entire population, which is very difficult to obtained because it is more expensive, time consuming and is larger to obtain in terms of coverage, however it has typical of vast with a fixed population parameter. The sample survey can be conducted by taking an investigation of what is existing in the population that is, it can be done by studying a small part of the population. In most cases is very simple to perform and control that makes it to be covered within possible time which save more money. But when the sample gives hundred percent is no more a sample rather a population. In general the sample figure or data vary from sample to sample, in spite of this the sample uses different classes of sampling methods depending on the nature and cost of the survey. Sources of information or places the researcher may visit to generate his data may arise from marketing survey, agricultural survey, school survey, employment survey, health survey, demographic survey, house hold survey, economic survey to mentioned but few. However the table below captured a brief elucidation of the research techniques used in investigation cited from [2-4] (Figure 1).



Questionnaire and Types of Questionnaires

A Statistician, An Explorer, British Anthropologist called Sir Galton in late 1800 describe questionnaire design as a list of questions with space printed, needed reply to be accomplished by a respondent. The questionnaire when it due followed will help the researcher to easily generate and analyse the data. In research methodology, researchers uses questionnaire in solving a quick setback concerning collection of data. As long as the scholar motivate and make things easier in designing the question for his questionnaire, the more possible a good number of respondent will be expected the easier the reliable and dependable data would be collected. In clinical trial and cross sectional survey questionnaire plays a vital role were information to be considered has to do with personal behaviours, people beliefs, individuals attitude and so on. Many researchers have written a lot on guide and techniques of questionnaire but yet researchers find it difficult to implement. Lack of proper designing

of a questionnaire brings about error in the process of data collection which affect the aims of conducting the research [5]. Says questionnaire can be used in various means for revealing investigation to any research, which can be seen either by means of using interview, questionnaire and self-report surveys, through observation, by measuring physically and by using measuring scales. However any process that can be used for data collection, which is design, constructed and implemented is referred to as questionnaire, coupled with the figure below he further simplified his illustration (Figure 2).



Questionnaire Design

In designing any questionnaire the researcher must bear in mind, the aim and objective of his research study by specifying what to achieve with duration of time for the completion is adhered. Familiarization of the environment or subgroup of respondent population, were the questionnaire will be administered and also understanding the background of the study is a key that will assist in accomplishing a good response for the questionnaire. However all communication regarding to the reason for the study and plan for using the data collection with regards to the importance of conducting the research study after the analysis need to be explained to the responded, The questions need to be short, clearly and straight forward at least should be 12 (twelve) words or less than that, presentation of the questionnaire should be created in a simple language and should be paraphrased to look professional in such a way that the attention of the respondent will be trapped also easy questions should begin with and to end with more difficult once. In any research quality of returning with small significant response is better than meaningless number with quantity or to have much without accurate or none response. Advisably the researcher should use small groups of participant to test his questionnaire before going into the required environment for further study. In the process of administering the questionnaire the researcher must have the skills and understanding of what is expected from the study, more so interest and cooperation of the respondent throughout the study is required, this will assist for asking and recording the right answers. It is very important to adopt a skill and make provision for resource person that will accomplish the research so that they can plan ahead of time for participation, without this all the work will become unsuccessful one. It is also good to take note of those answering yes or agreeing with any statement relatively than to disagree. After the questionnaire is successfully administered, the researcher must follow-up his questionnaire to remind the respondents with motivation by given them some incentives that will boost their morale to give more response, with openness and sincerity.

Tharenou et al. (2007) viewed structured way of interview and answer consultation as a complete pre-set balanced questions as usual closed ended that is serially followed, he claims that the interviews are truly questionnaires

presented to the respondent verbally but generate unchangeable or constant response of options. In social sciences the researcher structured his questions using quantitative data with pre-coded question that goes with well-defined cutting skipping patterns which follows the sequence of the questions, the structured interview has some benefits in administering it in the realm of data collection, yielding consistency of answers with easy management of data and less discrepancies.

Semi Structured Questionnaire

According to Therenou et al. (2007) cited from Crabtree (1992) opined that the interview form of semi structured are well-ordered concentrated, given focused and open ended statement of events that are generated with interviewer and the respondent which happen outside the influence of normal life belief. In spite of this it contain the complete or general topic, having universal themes with direct issues and specific questions, which makes it more accommodating than structured interviews, although is more focused than unstructured interviews for the reason that the researcher is even free to follow and find out problems as the conditions required just like the unstructured interviews.

The Unstructured Ouestionnaire

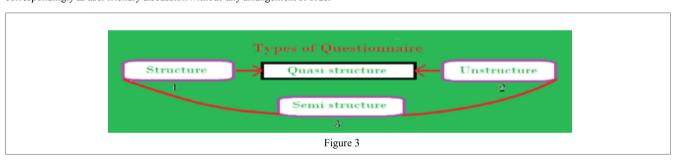
Tharenou et al. (2017) revealed that unstructured questionnaires are typically used for revealing and reasoning research. Nevertheless if a researcher will test a concept therefore a questionnaire or structured interview is the best to select. Tharenou et al. (2007) maintained that unstructured interview known as open ended question, the running of interview is performed correspondingly as user friendly discussion without any arrangement of order

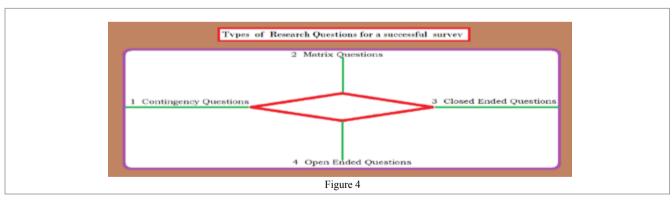
of questions or precise expression of questions. Since it is open ended, it does not go easily with pre coded questions, the questions patterns those not assent with questioning type of sentence as such the mediator need to elaborate the perception of the question. Most of the questions are standard in an alternative format which give room for others or specify, however it has a common logical tradition of structured type of questions, meanwhile sometimes is very easy to have some unstructured questions, that answering them will not be reasonably to specify completely, this class of questionnaire is termed as quasi-structured questionnaire. To that extent therefore it has been observed, that been contained structured closed and open ended questionnaires [6-8]. Maintained the fact that a questionnaire could be structured or unstructured one whose characteristics can be identified as follow;

- Questions should not be ambiguous.
- Questions should not be technical; it should be easily understood by a lay man.
- Each question should be given a price answer.
- Each question does not require too much calculation by the respondent and he/she should not decide upon the classification.
- The questionnaire should be short not too long.
- Finally the respondent should be objectives and not bias.

Much as it has been seen from the discussion above, the table below gives a vivid explanation of the questionnaire's typologies: (Figure 3).

Diagrammatically, [3,9,10] describe research question as follow; (Figure 4).





Cascade Question (Contingency Types)

Is a type of question that is only ask when the responded gives a particular response from previous questions, it does not interfere or deals with question that have no business with the respondent, for instance asking a small girl who had never started menstruation about her menstrual cycle. Also the

contingency has a very unique case of closed ended request for information, that based on sub group respondent, filter questions is been asked by the researcher which are special type, again sub group of the respondent tend to answer some set of questions while others skip to advance to next section.

The detailed response comes from one direction not all. This deals with both open ended that includes specific response with options. For instance what kind of features of an implement would you prefer, thus the options for the answers should be either quality, price, performance, weight and so forth. There is dual advantage in this type of questions, here the researcher should avoid the problem of bad memory and poor expression coming across that will make the respondent consider a specific answer, which at the end make the details of the response to be very exposed. Assuming if the researcher

chooses to use interview method of data collection, instruction on how to go about the interview and where the answers will be recorded are needed to put in place. An advantage of the contingency questions is that some questions may be applicable from one of the gender not both, or it may be for only student not their academic and non-academic staff. More so contingency questions are usually placed at the end of the questionnaire which is set apart from the normal questions that everybody required to answer (Table 2).

	Three Features of questionnaire by S. Roopa & MS Rani 2012			
General Method	Questionnaire can be structured or unstructured form. The structure			
	goes with definite. Physical and planned questions. Presentation of			
	the questions should contained the same wording and order. Mor			
	so, highly structured questions minimize word during response			
	for example do you have money? Response needed should be yes			
	no. When the question is not prepared with yes or no, then it can be			
	unstructured or non-structured questions. The unstructured question			
	precisely open questions demanding answers using respondent word			
Questionnaire Sequence	The set of questions must be clearly and properly prepared for			
	easy understanding. Proper arrangement of questions powers the			
	respondent to understand and response to any question very easi			
	without hitches. Arrangement of questions is important, especially the			
	important once should become first and avoid open questions that ma			
	have private personality that when asked will hurt the respondent.			
Question generation and Wording	This aspect requires simple questions for easy understanding. The			
	questions should be concrete to foot in to the respondent way of			
	philosophy. Confusion and emotional words must be avoided.			

Contingency Types of Questions

Example 1: Did you ever attained secondary school in life

- 1. If yes answer the following question
- 2. If no skip to the next question, the next question could be 5 or 10 or 20, it depends

Example 2: Contingency with dichotomous that goes with closed ended question for instance, is it true that children from 7 to 16 in your locality work as a child labour, this a factual dichotomous question that needed yes or no answer. Another subsequent question may be ask from that called contingency, if it is like that, is it very common n your locality that boys and girls of such ages most involved in child labour before earning for their survival. Alternative answer need for this very question, which will be chosen from Likert scaling arrange as follows; a. Is very rare b. Very common in practice c. Somewhat common d. Neither common nor rare e. Somewhat rare.

Table 2

Matrix Type of Questions

Is a type of questions that generally take care of multiple answers to a group of individuals, the questions looks or arrange in tabular format with information that have titled without appropriate sentence like question. Question of matrix type uses response that have identical categories which provide several questions, the types of question are put one under the other, the style of matrix response question, can be categorized along the top and with a list of questions down by the side however it also reduces time and utilizes the use of page space for the respondent (Table 3, 4).

How often do you read publications at your usual time									
Publication Type	Not Often	Once in a every month	2 times in a month	About once a week	2 or 3 times a week	Most days			
1. Article	1	2	3	4	5	6			
2. Sport	1	2	3	4	5	6			
3. Novel	1	2	3	4	5	6			
4. Romance	1	2	3	4	5	6			
5. Adventure	1	2	3	4	5	6			
6. Magazine	1	2	3	4	5	6			
Matrix Question		,			,				
How often do you re	ad publications at y	our usual time			,				
Publication Type	Not Often	Once in a every month	2 times in a month	About once a week	2 or 3 times a week	Most days			
1. Article	1	2	3	4	5	6			
2. Sport	1	2	3	4	5	6			
3. Novel	1	2	3	4	5	6			
	1	2	3	4	5	6			
4. Romance		2	3	4	5	6			
4. Romance 5. Adventure	1	2]]			_			

Matrix Question								
During your school days how often do you go about the following school activities								
Activities	Almost Never	About 3 or 4 times a year	About once a month	At least once a week	Nearly every day			
1. Games	1	2	3	4	5			
2. Sanitation	1	2	3	4	5			
3. Night reading	1	2	3	4	5			

Table 4

The Closed Ended Questions

Closed-ended agreed that the respondent should not response base on his opinion or interest that is outside the content of the interviewer, rather from what the researcher gives him, that is the respondent cannot go outside the content of the research targeted answers, but the methods gives realistic response because it appeared in summary form at the same time the category of response is easier to be coded. However, since the respondent is forced to answer or dance to the tune of the interviewers based on alternative set of questions, in this situation therefore he has no power over the alternative question to reply. The closed design questions sometime resulted into frustration because the respondent may like to express himself but no chances of doing that since the detailed response needed comes from a guided direction. Again there is tendency of confusion in answering or ticking questions by selecting all items in the same manner or mistaking to tick the first category rather than the last number or box. Salant and Dillman (1994) closed-ended questions can be used categorically with response like answers which define and evaluate the events and places of individual, answers that has to do with assessing the opinions, suggestions and investigation and lastly the answers that can be used for measuring information. Close ended questions with ordered of choices is seen from McIntyre (1999) that investigation of all possible response should be study independent of the other choices, this is the required expectation needed from the respondent. These type of questions comes in different variety such that it will be very easy for the respondent to answer while for the researcher is going to be easy for him to analyse because it deal with scale and numerical ranges. Close ended questions with unordered of choices permit the respondent to response by comparing possible responses and then select one out of it, however it is design with multiple choice of questions so that the researcher must ensure that there is a comprehensive selection of responses from the respondent Salant and Dillman (1994). The unordered choices of closed ended questions are used for ranking of things that are in order choice (Table 5).

Example of Closed Question

How often do your secondary teacher gives you assignment?

1. 1 or 2 times a week [] 2. 3 or 4 times a week [] 3. Never [] 4. Nearly every day []

Have you ever visited Near East University in Cyprus?

1. Yes [] 2. No[]

How would you rate your performance in the university?

1. Excellent [] 2. Good [] 3. Fair [] 4. Poor[]

Do you want to stop smoking cigarette?

1. Yes [] 2. No[]

What type of help do you think would be rendered to you stop smoking?

1. I don't Know [] 2.By Counseling [] 3. By prayers [] 4. Through medication [] 5. None of the above []

Do you normally exercise your body or engage in regular exercise? The response can generate Yes or No answer also it will advance to how many times in a week. The response will come from multiple choice of 1. Never [] 2. Once a Week [] 3. Twice a week [] 4. Three times a week [] 5. Seven time a week []

Table 5

Open Ended Questions (Supplier Response Question)

Gives room for any respondent to reply the answers the way he fill like expressing himself because he is the chief provider or supplier during the filling of the questionnaire; he is freely to create any number, words, text. He can decide to response in short or in full detail also due to enough time given to him high expectation is needed from him. The Salant and Dillman (1994); in his write-up describe open ended question as a useful tool that permit the researcher to discover more concept that would not otherwise be expressed but will be very useful where additional perception are required, since the respondents were allowed to open up, they are free to say their mind or opinion using their own language because of the free chance to talk, the respondent stand a better chance of revealing so many things pertaining the survey and the research background that the interviewer don't know or he/she has little knowledge about it. Salant and Dillman (1994); reveal that the open-ended questions result sometimes are difficult to handle during analysis

however is not easy to find a single practise from the wide variety of answers that received due to chances given to the responded to open-up. In open-ended question the respondents are freely allowed to express themselves as much as possible base on their expressions, it gives a free open mind of answers using individual words, by allowing him to voice out his response without any limitation. Generally, open ended questions used complex questions that answering them will not be in few moment because more details of discussion will be required, but is the best method used in qualitative data since it allow the respondent to give more elaboration on the subject matter. The disadvantages here, it takes longer time for the respondent to conclude the questionnaire and time consuming during the data collection and analysis, lastly it takes time to summarize and categorize the data, there is also problem of readable hand writing and level of knowledge background, which makes it difficult for understanding as a result there will be problem with the analysis (Table 6).

The Supplier Question

Example 1: What is your favorite sport activity (Specify)

Example II: Who is your world best player of the year (Specify)

Example III: Why do you smoke cigarette (Specify)

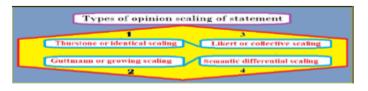
Example IV: What is your favorite drink (Specify)

Table 6

Scaling form of Questions

[8, 9] concurred that, scaling as any aspect of development of measuring response that contain the structure of an instrument which relate to qualitative concept and quantitative unit metric, they also perceived it as the process of supporting the motivation of the open ended question with the belief of creating answers from the searching questions. However, scholars like [1].

Portrayed the fact that, scaling is a practice of creating a variety of multipart assessment that include various item with logical creation between them [11]. See scaling as a set of grouping variable or range of figures upon variable where the procedure of allocating numbers to item that will generate the measures of a construct (Figure 5). Sources: [8,9].



The Thurstone or Identical Scaling

Is a scaling type that deals with group organization of answers that is generated from the respondent, also it has the same appearance of techniques of interval.

Guttmann or Growing Scaling

Is an expression that uses opinion of respondent whose respond to a question generates (leads) or give rise to another question sequentially.

Likert or Collective (Summative) Scaling

It uses the tradition of generating higher expected score with more favorable social attitude from individual, the items have equal value of providing a replicated assessment of dimension measured by the total scores on the scale. Steady measurement of total scores on the belief scale of the responded is assess while each items contributes meaningfully to the measurement. However Likert scaling usually uses 5 (five) classes of response such as strongly like, neutral, like, strongly dislike. The positive scale, numbering start from the highest and ends with the lowest while the negative start from the lowest and end with the highest (Figure 6).

```
Example of positive and negative scailing

Question: Do you agree that Library is a place where we read and do our research

Positive: (1) strongly agree [] 5 (2) agree [] 4 (3) neither agree nor disagree [] 3 (4) disagree [] 2 (5) strongly disagree [] 1

Negative: (1) strongly agree [] 1 (2) agree [] 2 (3) neither agree nor disagree [] 3 (4) disagree [] 4 (5) strongly disagree [] 5
```

And Osgood Scale

The Osgood scale refers to semantic differential method that usually comprised of pairs of adjective that worked for assessing the force and direction of mindset. Mainly it deals with a list of adjectives that are opposite in nature which assess the inner meaning of a person.

Method of Reaching the Target Audience for Data Collection

Many techniques or methods were used to audience in data collection, however, the most vital ones among which in research survey in generating information are as follows;

Experimental Survey Method

Is seen from a well define source Webster's Dictionary as any attempt of findings or certain observation of interest which can be made with the aim of either to prove or verify something that is uncertain. It assists the researcher in the process of assessment of function that can be performed for discovering of some unfamiliar reality, however experiment gives a reliable means of sources of data and it is subject to appropriate statistical analysis when it is conducted without any bias. More so, it can be seen as an act of measurement according to prearrange plan for the purpose that required evidence against any stated theory or hypothesis.

Face to Face (Direct) Survey Method

In this case there must be personal interaction of gathering information between the interviewer and the respondent for in-depth and accurate response depending on the means of communication decide to use, it could be through telephone or oral means which the interviewer will follow his respondent either in their homes, business place, offices on the street and so on to achieve his aim which the prepared questions will generate answers (data). Since there is face to face contact between both the party, it has some benefit that will give the best in terms of achieving high accurate quality of data, since the selection of respondent can be controlled during administering. The only problem with this, it will requires for an expert to

handle the survey because there is unnecessary administration that will involve traveling, training and control of respondent which the researcher will face capital expensive with time taken during operation. Apart from this, there are the issues of confidentialities where the researcher will encounter with the respondent which served as an acute problem in gathering data.

Mail (Postal) Survey Method

Is conducted or send to the respondent via mail, normally before the questionnaire should be sent out to the public, enlightenment awareness through channel of various media should be communicated to alert the respondent in order to give good outcomes. It has the characteristic of generating urgent and easy response from a wider coverage as a result there must be a reduction in the cost of expenditure. The problem with the system here is that, it takes longer time with inability of probing the respondent to give more detailed information. More so it has some weaknesses that someone can take the responsibility of filling for others since the researcher is absent or unavailable while others will not even response to some questions or decide to give wrong answers.

Telephone Survey Method

In this type of interview both the researcher and the interviewer uses telephone to arrive at a dependable and reliable result, the respondent from anywhere or place he is, will communicate with the interviewer to give his response. One good aspect of it, it is faster and it produces high response rate of information from a larger sample within a small time. There is disadvantage associated with it such as lack of control during communication to those that are closed to them, also short answers and questions is another factor with problem of poor network that will lead to low response.

Literature Survey Method

Is a type that deals with yielding information from available materials or sources that are already written by previous scholars who have in-depth knowledge about the subject matter under review, these materials could be newspaper, annual report, online data base, publication from articles and so on. Is very expensive to conduct because the information need to be assembled and sorted out where the most important ones will be taken and utilized.

Web or Online (Internet) Survey Methods

Here the survey is done by using computer, because computer uses straight forward interview of generating questions, the researcher uses his computer to collect and record his data. However in this type of interview the researcher from his computer send the prepared questions to the respondent through their mail and wait for his response, the approach is very easy and faster, is the cheapest means to apply for any data collection, while the other side is difficult to design, it has problem of confidentiality and follow-up is another issue due to network failure and so on. However web survey is a type of survey that is conducted online in which questionnaire will be prepared and send to the people web page link so that they can fill in their response online, it is design with a logic of skipping question that are complex, the questionnaire is been used with software that will confirm the skip instructions which are accurately followed, that is instruction to skip to next question or so, yet it gives instant feedback faster in few time with less financial implication, because of it fastness in reality when the questionnaire is posted on any popular website it will immediately generate high response in a couple of time on the first day of sending which the respondent will finish responding within few days, pictures of those responding can be seen while some web survey can also play sound and show video.

Pre-Testing (Piloting) of Ouestionnaire Survey

Refers to the primary stage of testing the drafted copy of the questionnaire before facing the target audience for the main survey, in respect to this it reveal any mistake and problem that will demand corrections before going to the actual field. However is seen as any small scale or slight group of study that is performed before the main study which eases the work of the researcher also it aid to correct any abnormality before the main study, this saves the researchers time, energy and money. The basic reason for the piloting is to have assurance that the questions are frame correctly to acquire successful result with the wording of question. The researcher must make sure that the direction of the questions is positioned in the agreeable setup and the interview guidelines can be tolerated by making sure that any corrections that requires supplement or removal is given attention.

Reliability

According to Nunnally (1978); described reliability as a measurement of variety of conditions that mainly yield the same result or is concern with psychological test that is used in measuring some attributes or behavior (Rosenthal and Rosnow 1991); example to realize how test is been function, which is very essential that the test is used consistently to differentiates individuals at one time. (Bollen 1989); viewed reliability to an extent of measurement that are repetitive when different individual measurement are executed on the different instances under different situations with the same instrument of measurement. Other reliability has to do with consistency of measurement. Reliability or stability deals with consistency of measurement

over a period of time, mostly, it uses measures of association as a tool for any estimate. Example correlation coefficient which is called reliability coefficient which is used in measuring the correlation between two or more variable affirming from Rosnow and Rosenthal (1991)

Internal Consistency

Refers to a test mechanisms that is used for measuring the consistency within questions instrument which exposes how well a set of items will determines a certain qualities within the survey, however internal consistency in social science, is tested by using coefficient of alpha which was simplified by Cronbach (1951) known as Cronbach's alpha, number of substance goes to a particular level with the increase of coefficient of internal consistency which is reliable when it is above 80% after assessment using Cronbach's Alpha Statistics test

Inter Cross-Examine Reliability

Is the process were by the questionnaire administered from different interviews measure the highest degree of reliable interpretation of the same phenomenon

Test Reliability

The consistency of the response performance is judge from one time to another however in cooperation inter observer reliability and test reliability is confirmed by the statistics of Kappa which is the reliability accepted when the value is from 80% and above, again the reliability instruments is estimated based on how well the objects is going to show the same construct, as soon as the reliability is verified then the validity test will advance putting in mind that untrustworthy questionnaire cannot be valid. Is also concerned with physical mechanisms of a test that is conducted from one dimension to another, it uses the methods of group administering of test to the respondents and then also similar assessment will be run to the respondent at advanced stage. Test-retest reliability is the correlation concerning scores of the same test that will be given at different point of time, however regardless of the attraction the test retest reliability method has several limitations Rosnow (1991).

Validity

Is used for checking the degree to the extend in which questionnaire is assessed to what it was plan for assessing. This can be checked in four different ways as seen below

Content Validity

Is a validity that has quality in nature upon which the domain of the concept is going to be very clear then also the specialist evaluates whether the events entirely describe the subject. However content validity deals with qualitative ways of confirming that the signal hit the meaning explain by researcher's concept. This can be assess or measure in two different ways; by asking the exact figure of questions about the test and to asking the view of professional judges that are on the ground.

Face Validity

Face validity is the weakest in term of measuring validity because it deals with the belief of a theory, it can be viewed in two ways namely enquiry or interview methods and blingual method. However the interview methods administer the questionnaire using random sampling method for the selection of the sample with approximately 5 (five) to 10 (ten) sample size and detailed discussion regarding each items assessment about each question must be understood by the researcher while bilingual method is achieved by using middle man as a translator to speak and most be a person who knows the language very well.

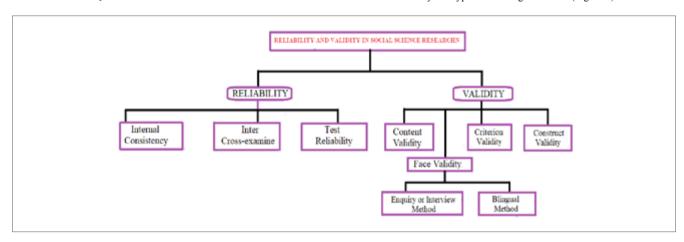
Criterion Validity

Point out the success of predicting the result of a questionnaire design to what is been quantified. The response developed from the questionnaire will be tested against external standards or gold standard, since it is the exact and separate processes of what the new questionnaire is aim to determine. The criterion validity can be predictive type or the concurrent type. Predictive in the sense that the predictor tools will be treated first then after some time

a new tools will be ran while the concurrent type is when both the tools are functioned at the same time.

Construct Validity

Discusses exactly how the researcher translated a theory or knowledge in a way where a layman can easily understand, the process is used for making sure or conforming the extent to which new questionnaire should go alongside with the existing hypothesis regarding to the theory that are being measured [12]. Categorizes construct validity in six ways, which are face, content, concurrent, predictive, convergent and discriminant validity. In the same vein the types was divided into two categories namely translation validity and criterion related validity. In the case of translation validity, it deals with observing whether the idea is practically measured or displayed the correct planning of the theory while the criterion-related validity is the detailed degree among measure of test on one or more separate conditions which is normally measured with correlation [3,13]. Identified also with the linked of reliability and types in the diagram below (Figure 7).



Discoveries of Survey and Questionnaire with a Way Forward

Most of our research survey practices did not confirm to validity and reliability for a successful conduct when perform, Professionals and authors of questionnaire design with expert that can manipulate and handle any statistical software are always ready and available for any guide that will succeed to acceptable analysis and perfect research, because it has been seen from previous authors that, there are a lot of confusion and errors committed from designing questionnaire to final result of analysis which result to inappropriate analysis. But when professionals are consulted it will guide the researchers to be on their own to avoid recurring of the same circumstances of mistake from past questions. After a successful questionnaire design and administering, consulting expert with the knowledge of statistical software will assist in knowing the right analysis at a particular time to accomplish. Therefore avoiding the use of style and tiny font size that will make the respondent to have difficulties during reading and line spacing, is very importance to separate to give spacing for any mixed up between the two paragraph of questions because if they are joined, the answers will also be inter changed. However most of researchers are not considering the background of the area of research, which makes it difficult for them to understand what is expected from them, nevertheless simplifying the level of language is everything that matter a lot, especially when the researcher is not going to be available with respondent during filling of the questionnaire. The researcher should minimize his questions to avoid jumping of questions or trying the patience of the respondent especially when someone is busy or committed. When using closed questions there should be a guide on how to tick or cross the box, when it is open questions provision for specifying is needed for something to be written, this must come if possible from introduction before starting filling the questionnaire. Most of the questionnaire got missing without coming back to the researcher's hand especially in the process of gathering them from the respondents, which make the respondents not to accept the story, thing of filling another questionnaire to replace the missing one when send again, so reliable person should be dealt with when sending anything that has to do with questionnaire for any survey research.

In view of the above analysis, some experienced mistake or errors will be exposed so that researchers will take note to overcome them as time goes on. For instance questions that are prepared for specific profession (person)

should be filled by the same professional or person so that it will fulfil what is intended to achieved, for instance, questionnaire for student should be for student, for farmer should be for farmer, for civil servant should be for civil servant and so on. Again questionnaire that is meant for boys should be for boys or girls for girls vis-a-vis. Also using mixture or joining of two or more different question that need one answer should be avoided. Like department and course of study, it should not be joined because they are two different variables intertwined, we can have a Department with different courses of study. like computer science Department may have; Information communication technology, computer science, computer engineering and so on or Department of mathematics and statistics may have two courses under it, statistics course different while mathematics course different. Another mistake to avoid is joining Institution with faculty to demand for a response because they are two different variables. Additional confusion is joining closed question that has to do with level of education and course of study, then demanding answer from options like primary, secondary, tertiary, master and PhD. Also combining of many variables in one, instead of given a name to represent all the variable should be taking into consideration, variables like; construction of road, housing, hospital and so on. Infrastructural development will be suitable for them or drug abuse breaking into cocaine, heroin, marijuana, alcohol and so on. A lot of mistakes from previous authors and researchers conducted from various survey have been done erroneously, to mentioned but a few.

Conclusion

The conclusion of this study draws a serious appraisal, however the study was done in order to guide the researchers on the consequence of some methods of data collection especially using questionnaire design in achieving the purpose, because of the unique nature, it serve as the basis of producing behaviour of data, attitude, beliefs, opinion and knowledge of respondent however the process of designing and constructing it is very important, acquaintance and understanding with the sociological and ethnicity of the environment for administering the questionnaire should be acquainted by the researchers, while the level of people within the vicinity should be looked into so that the questions will be designed within their levels of analysis. It was also pointed that before any attempt of using questionnaire it is advisable to consult statistician or specialist for proper guide especially on the research question and hypothesis in order to avoid any repeated or occurrences of problems. The format and type of question to be used is good for the researcher to know during the planning of questionnaire and to be aware that we have professionals that can handle any difficulty of closed and open questions to make the analysis valid fulfilling and complying with the regulations of analysis.

References

- Babbie E (1990) Survey Research Methods, Second Edition. California: Wadsworth Publishing Company.
- Phellas CN, Bloch A, Seale C (2011) Structured Methods: Interviews, Questionnaires and Observation.
- 3. Roopa S, Rani MS (2012) Questionnaire designing for a survey.
- 4. David SW (1997-2010) A Selection from Survival Statistics.
- Janet ES (2011) Questionnaire design and systematic literature reviews, University of Wollongong.
- 6. Bogue G (1981) Basic Sociological Research Design, New Jersey: Scott, Foreman and Co.

- Thirkettle GL (1972) Weldon's business Statistical Method London MacDonald and Evans Ltd.
- 8. Bidhan A (2010) Questionnaire Design
- Maria Teresa S, Auriat N (2005) Module 8 UNESCO International Institute for Educational Planning
- 10. Priscilla AG (2005) Fundamentals of Survey Research Methodology.
- 11. Judd Charles M, Smith ER, Kidder LH (1991) Research Methods in Social Relations, Sixth edition. Florida: Harcourt Brace Jovanovich, Inc.
- 12. Trochim William MK (2006) Social Research Methods, Knowledge Base
- 13. Ellen D Education (2011) Research and Perspectives, 38 Department of Management, College of Business and Economics, California State University, Los Angeles, 5151 State University Drive, Los Angeles
- 14. Adburn M, Norman MB (1979) Improving interview method and questionnaire Design.
- 15. Approaches to the Analysis of Survey Data SSC (2001). The University of Reading Statistical Services Centre Biometrics Advisory and Support Service to DFID.
- Babbie E (2008) The Basic of Social Research: Instructor's Edition. 4th edition. Belmont CA: Thomson Wadsworth.
- 17. Berdie DR, Anderson JF (1974) Questionnaire design and use. Ociological research design, New Jersey Scott, Foreman and Co.
- Kothari CR (2004) Research Methodology Method and Techniques. 96-105
- 19. Campbell JG, Ramesh S, Linda S (1979) The Use and Misuse of Social Science Research in Nepal Kathmandu: Centre for Nepal and Asian Studies, Tribhuvan University. Chapter 8 A survey and correlational Research design 14.
- Conduct Pilot Test, Revise Instruments, Conduct Research, Analyze Data, Prepare Report.
- 21. Bird DK (2009) The use of questionnaires for acquirig information on public perception of natural hazards and risk mitigation a review of current knowledge and practice. Nat Hazards Earth Syst Sci, 1309-1315.
- 22. Edwards P, Roberts IMCD, Guiseppi C, Pratap S, et al. (2002) Increasing response rate to postal Questionnaire. BMJ 324:1183
- 23. Esposito JL (2002) Interactive Multiple Questionnaire Evaluation Research.
- 24. Ghazal L (2012) A questionnaire of Beliefs on English language Listening Comprehension problems: Developing and Validation. World applied science journal 16: 508-515.
- Gillham B (2000) Developing a questionnaire (real world research)
 London continuum.
- 26. Nahid G (2003) Understanding Reliability and Validity in Qualitative Research. The Quantitative Report 8: 597-607.
- Howitt D, Grammer D (2000) First step in research and statistics London: Routledge.
- 28. Humber Y, Survey and Questionnaire: The N I H R Design Institute.
- 29. Etikan I, Bala K (2017) Developing a questionnaire base on selection and design. Biometric and Biostatistics International Journal 5: 6
- Jenny R (2014) Designing and using research questions. Management Research Review 37: 308-330.
- 31. Krosnick JA (2009) Chapter 9 Question and Questionnaire Design.

- Kothari CR (2012) Research Methodology, Methods and Techniques.
 New age: International Publishers Limited.
- 33. Harris LR, The University of Auckland Gavin T. L. Brown, The Hong Kong Institute of Education. Lucas, David (Ed.) (1985) Asking Demographic Questions, Demography Teaching Notes V. Canberra: Australian National University.
- Boynton PM (2004) Administering analysing and reporting your questionnaire. Education & debate BMJ 328:1372-1375.
- 35. Radhakrishna RB (2007) Tips for developing & testing a questionnaire/ Instrument. Journal of Extension 45.
- 36. Ranjit K (2011) Research methodology step by step guide for beginners. 131-155.

- 37. Saul M (2014) Questionnaire designs. Simple Psycology.
- Seymour S, Norman M, Bradburn (1982) Asking Questions: A Practical Guide to Questionnaire Design. San Fransisco: Jossey-Bass Publishers.
- Weller Susan C, Kimball RA(1988) Systematic Data Collection (Newbury Park: Sage Publications).
- 40. http://iss.leeds.ac.uk/info/312/surveys/217/guide_to_the_design_of_questionnaires.
- 41. https://www.mitre.org/sites/default/files/pdf/05_0638.
- 42. Http://www.simplepsychology.org/questionnaire.html.

Submit your manuscript at

http://enliven archive.org/submit-manuscript.php

New initiative of Enliven Archive

Apart from providing HTML, PDF versions; we also provide video version and deposit the videos in about 15 freely accessible social network sites that promote videos which in turn will aid in rapid circulation of articles published with us.