

*Full Length Research*

## **BRIDGING THE RESEARCHER-RESPONDENT DIVIDE: ROLE OF INTERNET-BASED SURVEY**

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Man by nature is inherently curious; seeking answers to questions, solutions to difficulties and constantly seeking ways to bridge the gap between the known and the unknown. Indeed, man does not believe in happenstance, after all, there should be answers to the various phenomenon encountered on daily basis. This has made man relentlessly engage in the quest and re-quest for knowledge. This expedition and its recurrence is known as research; seeking what has previously been sought. However, in this course of this pursuit, various methodologies have been adopted to make the journey worthwhile and systematic; notably among which is the survey method that emphasizes the use of standardized questionnaires or interviews to collect data about people, their preferences, thoughts, and behaviors in a systematic manner. The objective of this paper is not to only explore survey method but to also appraise the use of web or internet to engage in survey with the objective of making research easy. The paper reviews online or web survey as a recent questionnaire survey which is administered over the internet using several platforms and is targeted at collecting data from a large number of people who are germane to the research. Thus, the paper reviews the meaning, characteristics, uses, advantages and challenges faced with, in the course of adopting internet-based survey as a methodology to facilitate research and break the barrier between the researcher and the respondent.

**Keywords:** Web survey, Internet survey, Online-survey, Researcher-respondent, Research methodology

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### **INTRODUCTION**

The world consists of many unanswered questions while the few answered ones generate more questions and so the questioning and re-questioning continues in a circle. Man ordinarily is inquisitive and seeks to make the best use of his immediate environment and as a problem-solver, he is committed to solving different challenges, issues or problems related to social life. This desire coupled with the need to meaningfully contribute to making social life easier has made many thinkers and writers devote a substantial part of their lives to finding

answers to these questions. In addition to this, there are contemporary issues that come up daily. Just as the world is evolving so are different issues that require explanation evolving and the ones already explained often become obsolete in no time and needs to be re-explained. This reexamination or what we may call replication is essential to prove or disprove facts in light of new discoveries. The process of reexamining, revalidating, re-verifying, reevaluating, reassessing, reappraising and reviewing is known as research. In

other words, research seeks to provide answers to different kinds of questions. Research concerns itself with the how and why of things since there is no end to the advancement of knowledge. One engage in research to check for reliability and validity of previous knowledge claims. It is a scientific enquiry which seeks to uncover laws governing the social life.

Research probes and delves into restricted areas. It also illuminates dark and grey areas in a particular field. To engage in research is to engage in problem-solving. As a matter of fact, the bulk of the activities in research is targeted at solving one problem or another. It is therefore a conscious effort that involves the application of scientific tools and techniques aimed at problem solving and expanding knowledge base. Research can be described as quest for knowledge; a journey or voyage into knowledge. Research aims at making discoveries or rediscoveries. As Singh (2006:1) puts it, research simply seeks the answer of certain questions which have not been answered so far and the answers depend upon human efforts. He further posits that research is simply the process of arriving at dependable solution to a problem through the planned and systematic collection, analysis and interpretation of data. Research is the most important process for advancing knowledge for promoting progress and to enable man to relate more effectively to his environment to accomplish his purpose and to resolve his conflicts (pp1). According to Kothari (2004:1) research refers to the systematic method consisting of enunciating the problem, formulating a hypothesis, collecting the facts or data, analyzing the facts and reaching certain conclusions either in the form of solutions(s) towards the concerned problem or in certain generalizations for some theoretical formulation.

The word research is composed of two syllables, re and search which if put together forms an idea representative of examining closely and carefully, testing and trying, and/or probing; especially from known to unknown. Research, however in the cause of this said examination, test and probe, adopts scientific methodology geared towards solving existing problems, expanding knowledge base and broadening horizon. Clark (2005) defines research as 'going beyond personal experience, thoughts, feelings and opinions that do not refer to other sources of information'. Clark contends that research is carried out to explore an idea, probe an issue, solve a problem or make an argument that compels one to turn to outside help. According to Kerlinger (cited by Kumar, 2011), 'scientific research is a systematic, controlled empirical and critical investigation of propositions about the presumed relationships about various phenomena'. Bulmer (cited by Kumar, 2011) states: 'nevertheless sociological research, as research, is primarily committed to establishing systematic, reliable and valid knowledge about the social world.'

McGrath and Watson (cited by Singh, 2006) defined

the term 'Research' more comprehensively as a process which has utility to the extent that class of inquiry employed as the research activity vehicle is capable of adding knowledge, of stimulating progress and helping society and man relate more efficiently and effectively to the problems that society and man perpetuate and create.

It is imperative at this stage to reiterate that there is a difference between fact-finding and research. For a process to qualify as research, it should consists of the following characteristics.

### **CHARACTERISTICS OF RESEARCH**

- a. Research is a conscious and controlled effort directed at data gathering
- b. Research is interested in gathering new knowledge through established principles
- c. Research involves rigorous set of activities and should not be done haphazardly
- d. Procedures and methods used should be carefully selected
- e. Research adopts logical and systematic procedures in its enquiry
- f. The researcher should be removed from the research; hence objectivity
- g. Conclusions reached should be valid, reliable, verifiable and replicable.

### **OBJECTIVES OF RESEARCH**

- a. The main function of research is to extend knowledge base and uncover laws governing the social universe
- b. Research is aimed at problem solving
- c. Research is aimed at theory building, re-verification and re-validation
- d. Research seeks to check reliability and validity of previous claims
- e. Research is meant to prove or disprove existing hypotheses

### **MOTIVATION IN RESEARCH**

Many people undertake research for various reasons which can be subsumed under the following:

- a. For recognition and social status
- b. To satisfy curiosity
- c. To gain intellectual relevance and/or meet employment conditions
- d. To solve problems and lay foundation for further research
- e. To initiate social awakening

## TYPES OF RESEARCH

The types of research are:

a. *Descriptive vs Analytical*: Descriptive research as the name suggests is a study carried out to describe phenomena in relation to the subject under study. This kind of research involves surveys of various types to give description of findings in its present state. Under this kind of research *Ex post facto research* is commonly used and it refers to a kind of study which the researcher has no control over but can only report as it has happened or is happening. Analytical research however refers to research wherein the researcher relies majorly on available facts and information for analysis and inference or evaluation.

b. *Correlational vs Explanatory*: This kind of research is interesting in pointing out the 'correlation', relationship, interdependence and even connection between two or more phenomenon. Explanatory research however aims at clarifying why there is a relationship between the said two or more phenomenon; in short it explains.

c. *Applied vs Fundamental*: This category is also referred to action or pure research. Applied (action) research is targeted at seeking out solutions to a pressing problem or immediate difficulty; applying research procedures and techniques in the collection of data for other use, while Fundamental (pure) research is concerned with gathering knowledge so as widen frontiers of knowledge and existing research methods; it involves hypothesis testing that contains abstract concepts.

d. *Quantitative vs Qualitative*: Quantitative research concerns studies conducted about a social phenomenon and could be expressed with numbers; numerically. It places more emphasis on quantity or amount unlike qualitative research which employs observation in the understanding of social phenomena. It emphasizes quality. According to Singh (2006) qualitative research is important in the behavioural sciences where the aim is to discover the underlying motives of human behaviour. Through such research we can analyze the various factors which motivate people to behave in a particular manner or which make people like or dislike a particular thing.

e. *Conceptual vs Empirical*: Conceptual research which is mostly used by theorists to develop new concepts relies on abstract ideas as opposed to empirical research also known as experimental research which is data-based and can be further replicated or verified with experiments and is reliant on observation. As submitted by Singh (2006), in such a research, the researcher must first provide himself with a working hypothesis or guess as to the probable results. He then works to get enough facts

(data) to prove or disprove his hypothesis. He then sets up experimental designs which he thinks will manipulate the persons or the materials concerned so as to bring forth the desired information. Such research is thus characterized by the experimenter's control over the variables under study and his deliberate manipulation of one of them to study its effects. Empirical research is appropriate when proof is sought that certain variables affect other variables in some way. Evidence gathered through experiments or empirical studies is today considered to be the most powerful support possible for a given hypothesis.

f. *Exploratory vs. Pilot Study*: According to Kumar (2011) exploratory research is when a study is undertaken with the objective either to explore an area where little is known or to investigate the possibilities of undertaking a particular research study. When a study is carried out to determine its feasibility it is also called a feasibility study or a pilot study. It is usually carried out when a researcher wants to explore areas about which s/he has little or no knowledge. A small-scale study is undertaken to decide if it is worth carrying out a detailed investigation. On the basis of the assessment made during the exploratory study, a full study may eventuate. Exploratory studies are also conducted to develop, refine and/or test measurement tools and procedures.

g. *Other types*: Singh (2006) gave a detailed analysis of other types of research when he says: from the point of view of time, we can think of research either as *one-time research or longitudinal research*. In the former case the research is confined to a single time-period, whereas in the latter case the research is carried on over several time-periods. Research can be *field-setting research or laboratory research or simulation research*, depending upon the environment in which it is to be carried out. Research can as well be understood as *clinical or diagnostic research*. Such research follow case-study methods or in depth approaches to reach the basic causal relations. Such studies usually go deep into the causes of things or events that interest us, using very small samples and very deep probing data gathering devices. The research may be *exploratory* or it may be formalized. The objective of exploratory research is the development of hypotheses rather than their testing, whereas formalized research studies are those with substantial structure and with specific hypotheses to be tested. *Historical research* is that which utilizes historical sources like documents, remains, etc. to study events or ideas of the past, including the philosophy of persons and groups at any remote point of time. Research can also be classified as *conclusion-oriented* and *decision-oriented*. While doing conclusion oriented research, a researcher is free to pick up a problem, redesign the enquiry as he proceeds and is prepared to conceptualize as he wishes.

Decision-oriented research is always for the need of a decision maker and the researcher in this case is not free to embark upon research according to his own inclination. *Operations* research is an example of decision oriented research since it is a scientific method of providing executive departments with a quantitative basis for decisions regarding operations under their control.

## RESEARCH METHODOLOGY

Method in the context of research is the way in which the research is carried out and is influenced by the type of research under focus. Broudy (cited by Singh, 2006) stated that "Method refers to the formal structure of the sequence of acts commonly denoted by instruction. Singh buttresses that method is defined as "orderliness and regularity or habitual practice of them in action". By placing stress on "arrangement", orderliness, regularity and habitual practice, the methodologies derive their substance essentially from the classically ideal controlled experiments which permeate rightly or otherwise, the literature of educational research. There are various methods engaged in conducting of research; observation, experimentation, content analysis and social survey methods. The major objective of this research work is internet-based survey which has its roots in the survey research method. It is therefore crucial to have an understanding of survey method and its elements so as to have a better grasp of internet-based survey.

## SURVEY

According to Bhattacharjee (2012) survey research is a method involving the use of standardized questionnaires or interviews to collect data about people and their preferences, thoughts, and behaviors in a systematic manner. Bhattacharjee further adds that survey method can be used for descriptive, exploratory, or explanatory research. This method is best suited for studies that have individual people as the unit of analysis and it has several inherent strengths compared to other research methods [paraphrased].

Survey method is broadly categorized into two: questionnaire and interview surveys. Questionnaire survey could be group-administered, by mail or could be online while interview survey could be over the telephone, personal or group interview. Singh (2006) gave an exhaustive list of the main characteristics of the survey method of research:

- a. The survey method gathers data from a relatively large number of cases at a particular time.
- b. It is essentially cross-sectional.

- c. It is not concerned with the characteristics of individuals.
- d. It involves clearly defined problem.
- e. It requires expert's imaginative planning.
- f. It involves definite objectives.
- g. It requires careful analysis and interpretation of the data gathered.
- h. It requires logical and skillful reporting of the findings.
- i. Surveys vary greatly in complexity.
- j. It does not seek to develop an organized body of scientific principles.
- k. It provides information useful to the solution of local problems.
- l. It contributes to the advancement of knowledge because it affords penetrating insight into the nature of what one is dealing with.
- m. It suggests the course of future developments.
- n. It determines the present trends and solves current problems.
- o. It helps in fashioning many tools with which we carry out the research.

## QUESTIONNAIRE

Questionnaire, invented by Sir Francis Galton, is a research tool comprising of standardized items otherwise known as questions intended to elicit data or responses from a/group of respondent/s. These items or questions may be structured or unstructured. They are referred to as structured when the respondents are restricted to a set of answer options to make a choice from, and unstructured when the respondent is given the opportunity of responding freely in his/her own words. It is important that the questionnaire designer structures the questions in such a way that it considers the age, level, language, culture and exposure of the respondents and herein lies its weakness since it might not be suitable for illiterates and young adults. Though, it is less time consuming, cheap to produce, easy to distribute and makes communication with the respondents easy.

A questionnaire can be self-administered mail survey where the researcher mails the questionnaire to the intended-respondents who have the liberty of completing and returning it at their own convenience. This sort of questionnaire is inexpensive to administer and is unobtrusive. However, this form of gathering data can delay the research since the respondent can decide to complete it anytime. There are also issues of postal delays and the researcher even finds it difficult to make clarifications to the respondent and has to constantly monitor the progress by sending reminders.

The second type is the group-administered questionnaire wherein respondents are brought together under the same atmosphere and the instrument is administered to them. They are all expected to complete

the questionnaire simultaneously and independently. It is useful in reaching a large sample at the same time without having to make clarifications individually. It is very useful in an organization to gather feedback from employees even though it does not allow for proper monitoring.

When designing a questionnaire, the researcher has to decide on the response formats, language complexity, time frame, and question sequencing to reflect the age, gender and individual differences of the respondents/participants.

## INTERVIEW

Interviews are more personal compared to the use of questionnaire. When using interview, the researcher or a trained interviewer comes in direct contact with the interviewee and asks standardized questions just as in a questionnaire. The interviewer can also record his personal observations and is better able to clarify concerns raised by the respondents. Interviews are better conducted by trained interviewers due to the skills required, and is time consuming. An interview could be conducted first of all over the telephone where the prepared questions are administered to the respondent over the telephone who might have been randomly or purposely selected. It boosts confidence of the respondent who may ordinarily be shy on one hand, and makes it difficult for the interviewer to make observatory comments. This technique is consistent with present day technological realities but is not appropriate in rural areas where the facilities may be poor or even non-existent.

Another type of interview is the focus group technique consisting of a small group of respondents who are usually between 6 and 10. These respondents who are in the same location are presented with discussion by the interviewer and each one of them is given the opportunity to respond freely. This method restores confidence in respondents when they hear others talk. Meanwhile, it could also discourage others from talking since some people value their privacy. This method is useful for exploratory research.

Another type of and very typical form of interview is the face-to-face interview. Here, the interviewer deals directly with the respondent and asks him questions whilst recording his/her responses. Personal interviews are usually conducted at the comfort of the respondent i.e. home or workplace. This may help the respondent feel relaxed and comfortable. Yet it is inadequate as some people do not like having strangers in their homes.

According to Dawson (2002) the following is a summary to be noted concerning survey research:

a. Research methods are the tools that are used to

gather data.

b. Three types of interview are used in social research:

– Unstructured or life history interviews

– Semi-structured interviews

– Structured interviews.

c. Interviews can be conducted face-to-face or over the telephone.

d. Focus groups are held with a number of people to obtain a group opinion.

e. Focus groups are run by a moderator who asks questions and makes sure the discussion does not digress.

f. Questionnaires can be closed-ended, open-ended or a combination of both.

g. Participant observation is used when a researcher wants to immerse himself in a specific culture to gain a deeper understanding.

h. The chosen research methodology should help to indicate the most appropriate research tools.

i. Research methods must be chosen within budget and time constraints.

j. The purpose of the research will provide an indicator to the most appropriate methods.

k. You should think about your personality, strengths and weakness, likes and dislikes when choosing research methods.

## INTERNET-BASED SURVEY

Keeping in mind the various types of survey, the most interesting is the online survey method otherwise known as internet survey method which has taken over in recent times. As a matter of importance, the internet as a resource has gradually replaced some old ways of doing things. The application of the internet in gathering data, conducting research, analyzing data and interpreting data is nothing short of fascination. Before turning to fully appraise the internet as a survey method, it is necessary to establish a firm background of survey method by reviewing its characteristics, uses, strengths and limitations.

The online or web survey is a very recent questionnaire survey and is administered over the Internet using various platforms. The opinion of the respondent to participate in the survey is often sought and if granted, takes place on a particular webpage where the survey is completed. Aside from being redirected to take the survey on a website, the survey could also be attached to an e-mail where the respondent is expected to download, complete and return through e-mail. This form of survey is relatively inexpensive, can be used to reach a wide range of people across the globe, results gotten in real time and accessed from anywhere, and can be easily modified if need be. However, this form of survey is prone to cyber-attack and can be distorted by hackers. It cannot

guarantee that the survey will be attempted by the targeted audience alone; under-aged individuals could also attempt it and claim to be of age thereby rendering the findings unreliable. It also sets bias between respondents since people without computer and/or internet access are disqualified.

Cohen, Manion & Morrison (2007) opined that internet-based surveys have moved from being in the form of emails to emails-plus-attachments of the questionnaire itself, to emails directing potential respondents to a web site, or simply to web sites. While emails have the attraction of immediacy, the potential for web-based surveys to include graphics has been too great for many researchers to resist. Emails direct potential participants to a web site at which the survey questionnaire is located in Hypertext Markup Language (HTML) form.

The Internet came into existence in the 1970s as an outgrowth of the Advanced Research Process Agency Network (ARPANET), a Department of Defense (DOD) project, Fitzgerald (cited by Balch, 2010). Balch maintained that there was little growth in use of the Internet for the first fifteen years. Then, around the mid-1990s Internet usage began to increase dramatically. Balch further cited Horrigan that while the percent of Internet users in industrial countries, such as the United States is growing, the rate of increase in usage has declined. This decline may indicate that the market is approaching saturation and therefore has less room to grow.

According to Balch (2010) widespread use of surveys in research in the United States began shortly after World War II. Since the 1940s, surveys have become an increasingly popular technique for data collection in many different disciplines including advertising, marketing, social science, and education. The rising popularity of survey research and the growing number of persons using the Internet led quite naturally to increased use of the Internet to deliver surveys to collect response. An indication of the popularity of the Internet for survey research is the 712,000 'hits' produced by a search for the terms 'Internet' and 'survey', using the Google scholar search engine in April, 2006.

Dawson (2002) advocated that when surfing the net, there are some extra precautions one should take to check the reliability and quality of the information found:

- a. Try to use websites run by organizations you know and trust.
- b. Check the 'About Us' section on the web page for more information about the creator and organization.
- c. Use another source, if possible, to check any information of which you are unsure.
- d. Look for a stamp of approval such as the 'Which?' logo which will appear on sites that have received the required level of approval from 'Which?'

e. You should check the national source of the data as information may differ between countries.

f. For some topics specific websites have been set up that contain details of questionable products, services and theories.

Dillman et al. (1999) and Dillman and Bowker (2000) suggest that successful web-based surveys should take account of the inability of some respondents to access and respond to web questionnaires that include advanced programming features (e.g. that may require software that the respondents do not have or which download very slowly) and should also match the expectations of the respondents in completing the questionnaire design and layout. Dillman and colleagues suggest several 'principles' for designing web-based questionnaires:

- Start the web questionnaire with a welcome screen that will motivate the respondents to continue, which makes it clear that it is easy to complete and gives clear instructions on how to proceed.
- Provide a PIN (personal identification number) in order to limit access to those people sought in the sample.
- Ensure that the first question can be seen in its entirety on the first screen, and is easy to understand and complete.
- Ensure that the layout of each question is as close as possible to a paper format, as respondents may be familiar with this.
- Ensure that the use of colour keeps the figure/ground consistency and readability, so that it is easy to navigate through the questionnaire and navigational flow is unimpeded, and so that the measurement properties of questions are clear and sustained.
- Avoid differences in the visual appearance of questions that may happen as a result of different computers, configurations, operating systems, screen displays (e.g. partial and wrap-around text) and browsers.
- Keep the line length short, to fit in with the screen size.
- Minimize the use of drop-down boxes, and direct respondents to them where they occur.
- Give clear instructions for how to move through the questionnaire using the computer.
- Make instructions for skipping parts very clear.
- Keep instructions for computer actions to be taken at the point where the action is needed, rather than placing them all at the start of the questionnaire.
- Avoid requiring respondents to answer each question before being able to move on to the next question.
- Ensure that questionnaires scroll easily from question to question, unless other effects are important.
- If multiple choices are presented, try to keep them to a single screen; if this is not possible then consider double columns, providing navigational instructions.
- Provide graphical symbols or words to indicate where

the respondent has reached in the questionnaire.

- Avoid the kinds of questions that cause problems in paper questionnaires (e.g. tick all-those-that-apply kinds of questions).

### Advantages of Internet-Based Survey

- The cost of gathering data is relatively low (e.g. no cost of postage, paper, printing, keying in data, processing data, interviewer costs)
- It is less time consuming (data entered onto a web-based survey can be processed automatically as soon as they are entered by the respondent rather than being keyed in later by the researcher)
- There is real-time access to information
- Data can be promptly gathered from respondents and results given almost immediately
- Respondents can complete surveys at their convenience and leisure (respondents can complete the questionnaire from home rather than, for example, in the workplace, i.e. in self-chosen and familiar settings)
- Respondents can respond to a single-choice question thus cutting down on error in response
- Respondents often feel free to share their views
- The interviewer can influence responses

Dillman et al. (1999) and Dillman and Bowker (2000) further added that:

- Respondents can complete it at a time to suit themselves, thereby minimizing organizational constraints on the part of the researcher or the respondents.
- Respondents can complete the survey over time (i.e. they do not need to do it all at one sitting).
- Reduction of researcher effects.
- Responses in web-based surveys show fewer missing entries than paper-based surveys.
- Human error is reduced in entering and processing online data.
- Additional features may make the survey attractive (e.g. graphics, colour, fonts, and so on).
- Greater generalizability may be obtained as Internet users come from a wide and diverse population.
- Because of volunteer participation (i.e. an absence of coercion), greater authenticity of responses may be obtained.

According to Stewart, Eckermann, and Zhou (1998), the cost benefits of online research include:

- i. Recruitment is easily negotiated through email
- ii. Reduced travel, venue and transcribing costs;

- iii. Reduced need for synchronous interview times;
- iv. Access costs reduced by reading and composing interactions off-line;
- v. Easy communication storage and archiving;
- vi. Ease of distribution of discourse interpretations to participants for evaluation; and
- vii. Ease of publishing and updating results online.

### Challenges of Internet-Based Survey

- Unintended respondents are difficult to control
- Individuals without access to computer or internet cannot be surveyed
- Drawing a sample is difficult
- Targeted respondents are likely to ignore or delete survey due to increase in junk mails
- There is no interviewer to make necessary clarifications
- Observation is virtually impossible
- Response to the survey could also be delayed

Online communication lacks a range of supplementary cues found in the multiple modes of face-to-face communication. These include:

- i. Sound cues to indicate;
- ii. Pausing and reflection;
- iii. Emotion;
- iv. Speed, loudness and pitch;
- v. Age and gender;
- vi. National, ethnic or class accents.

Visual cues to indicate:

- i. Appearance, height and weight;
- ii. Clothes, make-up, jewellery;
- iii. Gender, age, ethnic group;
- iv. Physical handicaps;
- v. Facial expressions;
- vi. Eye contact;
- vii. Body language and gestures;
- viii. Psychophysical responses e.g. blushing, yawning, blinking; and
- ix. Emotions.

While their lack may provide a leveling effect to subgroups of people that might not blend so easily in face-to-face situations, the resulting de-contextualised, anonymous nature of online communication is considered to contribute to the phenomenon of 'flaming', the sending of negative, insulting messages. Thus powerful text-based dominance and offensiveness may occur online that requires text-based management of conflict (Murray, and Sixsmith, 1998). (Table 1)

**Table 1: Problems and solutions in Internet-based surveys**

<b>Problem</b>	<b>Possible Solution</b>
<p><b>Problem: Sampling</b> Some subsample groups may be under-represented in the respondents.</p> <p>There may be coverage error (not everyone has a non-zero chance of being included).</p> <p>Non-response and volunteer bias.</p>	<p><b>Possible Solution</b> Adjust the results by weighing the sample responses,</p> <p>Disclose the sample characteristics in reporting.</p> <p>Follow-up messages posted on web sites and electronic discussion groups. Use emails to contact potential participants. Require the respondents to submit their replies screen by screen: this enables the researcher not only to use some data from incomplete responses, but also to identify in detail patterns of non-response, i.e. responding is not an all-or-nothing affair (either submit the whole questionnaire or none of it) but can be partial (a respondent may answer some questions but not others).</p>
<p><b>Problem: Respondents</b> Respondents may be unfamiliar or inexperienced with the Internet and the media.</p> <p>Respondents may send multiple copies of their completed questionnaire from the same or different addresses.</p> <p>There may be more than one respondent to a single questionnaire (the same problem as in, for example, a postal questionnaire).</p> <p>Respondents may not be used to pull-down menus.</p> <p>The language of email surveys can risk offending potential participants ('flaming').</p> <p>Respondents' difficulty in navigating the pages of the online survey.</p>	<p><b>Possible Solution</b> Keep the questionnaire simple and easy to complete.</p> <p>Have a security device that tracks and limits (as far as possible) respondents who may be returning the same questionnaire on more than one occasion. Use passwords (though this, itself, may create problems of identifiability). Collect personal identification items. Check for internal consistency across submissions.</p> <p>Include questions to cross-check the consistency of replies to similar items.</p> <p>Provide clear instructions.</p> <p>Check the language used to avoid angering the participants.</p> <p>Keep instructions to the page in question. Make the instructions for branching very clear (font size, colour etc.).</p>



Table 1 *cont.*

<p><b>Problem: technical – hardware and software</b></p> <p>The configuration of the questionnaire may vary from one machine to another (because of web browsers, connection, hardware, software) and can lead to dropout.</p> <p>The screen as set out by the survey designer may not appear the same as that which appears on the respondent's screen</p> <p>Slow network connections or limited bandwidth can slow down loading.</p> <p>Respondents may not have the same software, or the same version of the software as the sender, rendering downloading of the questionnaire either impossible or distorting the received graphics.</p> <p>Graphics may be corrupted/incompatible between the sender and the user, i.e. between one kind of machine, user platform and software and another. Hardware may differ between sender and receiver.</p> <p>Email questionnaires may distort the layout of the questionnaire (some email software uses HTML, others do not).</p>	<p><b>Possible solution</b></p> <p>Opt for simplicity. Test the survey on different computer systems/browsers to ensure consistency. Avoid surveys that require real time completion.</p> <p>Opt for simplicity. Use a commercial survey software system for generating the questionnaire. Avoid high-level programmes.</p> <p>Keep the use of graphics to a minimum. Advice on the possible time it takes to load.</p> <p>Avoid the use of graphics and more advanced software programmes.</p> <p>Opt for simplicity. Use commercially available web-based surveying systems and packages. Use image files (e.g. jpeg, .gif) to reduce loading time. Avoid pop-ups if possible as they reduce response rate.</p> <p>Avoid sending a questionnaire directly using email; rather, post it on a web site (e.g. so that respondents visit a web site and then click a box for immediate transfer to the questionnaire). Consider using an email to direct participants to a web site (e.g. the email includes the web site which can be reached by clicking in the address contained in the email). Use an email that includes an attachment which contains the more graphically sophisticated survey instrument itself.</p>
<p><b>Problem: ethics</b></p> <p>Respondents may wish to keep their identity from the researcher, and an email address identifies the respondent (in the case of sensitive research, e.g. on child abuse or drug abuse, this may involve criminal proceedings if the identity of the respondent is known or able to be tracked by criminal investigators who break into the site). Non-traceability of respondents may be problematic.</p> <p>Respondents may not know anything about the researcher, or if it is a bona fide piece of research and not simply a marketing ploy.</p> <p>Informed consent.</p>	<p><b>Possible solution</b></p> <p>Direct respondents to a web site rather than to using email correspondence. Provide advice on using non-traceable connections to access and return the survey (e.g. an Internet cafe, a library, a university). Advise the respondent to print off the survey and return it by post to a given address. Avoid asking respondents to enter a password or to give an email address. Prevent access to unprotected directories and confidential data.</p> <p>Include the researcher's affiliation (e.g. university), with a logo if possible.</p> <p>Ensure that it is easy for respondents to withdraw at any time (e.g. include a 'Withdraw' button at the foot of each screen).</p>

Table 1 *cont.*

<p><b>Problem: layout and presentation</b> The layout of the text and instructions assumes greater importance than for paper questionnaires.</p> <p>Respondents may be bombarded with too much information in an introductory message.</p> <p>Respondents may be overloaded with instructions at the beginning of the survey.</p> <p>Respondents may be overloaded with information at the beginning of the survey.</p> <p>Respondents may not be able to see all the option choices without scrolling down the screen.</p> <p>Respondents may not understand instructions.</p> <p>Respondents only read part of each question before going to the response category.</p>	<p><b>Possible solution</b> Opt for clarity and simplicity</p> <p>Place the advertisement for the survey on user groups as well as the general public, inviting participants to contact such-and-such a person or web site for further information and the questionnaire itself, i.e. separate the questionnaire from the advertisement for or introduction to the questionnaire.</p> <p>Avoid placing all the instructions at the start of the questionnaire, but keep specific instructions for specific questions.</p> <p>Keep the initial information brief and embed further information deeper in the survey.</p> <p>Ensure that the whole item and options are contained on a single screen</p> <p>Provide a helpline, email address or contact details of the researcher. Pilot the instrument.</p> <p>Keep the instruction and words to a necessary minimum</p>
<p><b>Problem: dropout</b> Respondents may lose interest after a while and abandon the survey, thereby losing all the survey data.</p> <p>Respondents may not know how long the questionnaire is, and so may lose interest.</p> <p>Internet surveys take longer to complete than paper-based surveys.</p> <p>Error messages (e.g. if an item has not been completed) cause frustration and may cause respondents to abandon the questionnaire.</p>	<p><b>Possible solution</b> Have a device that requires respondents to send their replies screen by screen (e.g. a 'Submit' button at the foot of each screen) section by section, or item by item. Put each question or each section on a separate screen, with 'submit' at the end of each screen. Adopt a 'one-item-one-screen' technique.</p> <p>Include a device for indicating how far through the questionnaire the respondent has reached: a progress bar at the bottom or the side of the survey.</p> <p>Keep the internet survey as short, clear and easy to complete as possible.</p> <p>Avoid error messages if possible, but, if not possible, provide clear reasons why the error was made and how to rectify it.</p>

**Source:** adapted from Cohen, Manion & Morrison (2007)

## CONCLUSION

There are so many knowledge claims, alleged discoveries, re-discoveries, theories, hypotheses, and concepts out there and these ideas deserve to be tested for originality, genuineness, and overall usefulness in explaining or solving social phenomena. It is in light of this that a 're' 'search' of such principles becomes imperative to lay groundwork for building new theories or for verifying existing ones. Meanwhile, there are so many ways of doing this in terms of methodology and recently the internet or web survey method has been advanced as a universal method that can be easily adopted and mastered by a researcher to make the process of theory examination or reexamination less rigorous yet productive. After all, the internet, web or online survey affords the researcher the opportunity to reach the teeming population of the world taking into consideration the total number of active internet users around the globe. Indeed, the internet survey method brings the researcher closer to the respondent irrespective of the divide as may be imposed by region, class, language, religion and such other elements. Thus, the internet survey is a barrier breaker which is unarguably useful in reaching the world without boundary constraints.

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