

Ethics in On-Line Data Collection

Kimberly A. Barchard

University of Nevada, Las Vegas

Reference:

Barchard, K.A. (2003). Ethics in on-line data collection. Presentation at the Western Psychological Association Annual Convention, May 2, Vancouver, BC.

Contact Information:

Kim Barchard, Department of Psychology, University of Nevada, Las Vegas
4505 S. Maryland Parkway, P.O. Box 455030, Las Vegas, NV, 89154-5030, USA
barchard@unlv.edu

Resource:

On-line Study Ethics Scoring Key. Available from Kim Barchard at above address.

Abstract

When research data is collected over the Internet, researchers may never meet their study participants. Furthermore, participants may leave the study part-way through, without informing the researcher that they are going to quit. Ensuring an ethical study under these circumstances requires some pre-planning on the part of the researcher. Both Institutional Review Boards and individual researchers need to take into account the differences between laboratory studies and on-line studies, and recognize that procedures that would usually be adequate during laboratory studies are often inadequate or impossible during on-line studies. This presentation will focus on seven ethical issues regarding on-line data collection: 1) ensuring informed consent, 2) preventing children from accidentally participating, 3) avoiding the use of deception, 4) ensuring adequate debriefing, 5) ensuring the confidentiality of the data, 6) protecting participants right to withdraw from the study, and 7) copyright issues. For each issue, the issue will first be presented, and then some potential solutions will be suggested.

Ethics in On-Line Data Collection

It is now possible to collect research data by administering questionnaires and tests over the Internet. Through the use of html forms, javascript, java applets, and other web-server technologies, researchers can conduct real-time data collection using both open- and closed-ended question formats. On-line data collection allows researchers to eliminate the time spent administering tests and questionnaires to research participants and doing data entry. Participants appreciate the flexibility to complete studies at convenient times and locations. Furthermore, on-line data collection makes multi-national research almost as easy and inexpensive as conducting research in a single city. On-line data collection is not well-suited for all research programs. But for those research programs that are currently conducted using paper-and-pencil questionnaires or tests, on-line data collection offers an efficient alternative.

In addition, it is now relatively easy to collect data over the Internet. Commercial services are readily available to create Internet surveys and tests (Formsite.com, Ioxphere, PsychData.net, PsychDesign.com, Cliquer.com, WWW Survey Assistant), and more and more researchers are able to create their own on-line questionnaires. Although on-line data collection websites can be extremely complicated, most people can learn to create a basic webpage in just a few hours. Once someone can create a webpage, they can learn to add survey questions to their webpages in only a few additional minutes. Therefore, simple on-line data collection is within the reach of almost all researchers.

The effectiveness and feasibility of on-line data collection suggest that it will become an increasingly popular data collection method in the future. However, on-line data collection is different from traditional data collection, in that researchers often never meet their participants. Furthermore, participants may quit an on-line study part-way through, without informing the researcher. These differences between in-person and on-line studies require researchers and Institutional Review Boards to re-consider the steps necessary to ensure an ethical study. The purpose of this paper is to discuss some of the issues involved in on-line data collection, in light of the American Psychological Association's (APA) Ethical Principles of Psychologists and Code of Conduct (2002), which comes into effect June 1, 2003. This paper will focus on seven issues: consent, debriefing, deception, confidentiality, the right to withdraw, security of testing materials, and children.

Informed Consent

In on-line data collection, the researcher may never meet the participant. This presents unique challenges to the informed consent process. In Standard 3.10, the 2002 APA Ethics Code specifies that "[w]hen psychologists conduct research . . . they obtain the informed consent of the individual or individuals using language that is reasonably understandable to that person or persons . . ." (p. 6). In on-line data collection, it is critical that the consent form uses clear, simple language. This issue is more critical in on-line studies than in in-person studies, because it may be awkward or time-consuming for potential participants to obtain clarification.

Second, when we conduct studies on the Internet, we often have less control over who our participants are than when we conduct studies in our laboratories. In particular, we often have no method of screening our participants to ensure that they have a good working knowledge of the language in which the materials are written. Extra pains should therefore be taken to ensure that the consent form uses clear and simple language. In addition, it is advantageous if we can create a webpage where the consent form is presented in both written and spoken form. This can be done quite easily by recording the consent form using a computer microphone, and embedding the sound file in the webpage. This file should then be set to start playing as soon as the consent

form webpage is opened. One disadvantage of this approach, however, is that the additional download time may interfere with the external validity of the study, because some potential participants may be dissuaded from participating because of it, or participants may be required to use certain computers (such as the ones at the university computer lab) to ensure that the computers have the required hardware and software.

Third, no matter how clear the consent form seems to be, it is essential that participants have a method of asking questions before they consent to participate. APA (2002) Standard 8.02 states that researchers “provide the opportunity for the prospective participants to ask questions and receive answers” (p. 11). In traditional in-person studies, potential participants can ask the study administrator questions and receive immediate answers. In an on-line study, several different approaches could be used. For example, the consent form could ask participants to phone the researcher if they have any questions. Alternatively, questions could be emailed to the researcher. If either of these two approaches is used, questions should be answered promptly (such as within 24 hours). A third approach would be to have participants complete the study at a specified time and location (such as a computer lab), where a researcher would be available to answer questions. This approach eliminates one of the advantages of an on-line study, however: the elimination of scheduled testing sessions. Whichever approach is used, participants should be asked if they have any questions *before* they are asked if they consent. At the minimum, this implies that researcher contact information should be given higher on the webpage than the consent question.

Finally, it is very important that potential participants have the opportunity to say that they do *not* want to participate in the experiment. Potential participants will approach on-line studies with a wide range of computer experience levels. Researchers should not assume everyone who approaches their study knows how to exit the webpage without using one of the links provided. In particular, researchers should not assume that everyone knows how to use the address bar or the back button. In my opinion, consent forms must always provide at least two links: one that indicates consent and one that does not. This way, the researcher can be sure that participants voluntarily chose to participate.

Debriefing

According to APA (2002) Standard 8.08, we must debrief all participants: “Psychologists provide a prompt opportunity for participants to obtain appropriate information about the nature, results, and conclusions of research, and they take reasonable steps to correct any misconceptions that participants may have of which the psychologists are aware” (p. 12). Therefore, researchers must build debriefing into their on-line experiments. Several methods of debriefing are possible. The easiest is perhaps the debriefing page: participants are sent to a new webpage when they have finished filling out the questionnaires and tests.

As discussed by Nosek, Banaji, and Greenwald (2002), researchers must plan their studies carefully to ensure that all participants are debriefed because it is possible that participants will quit an on-line study before reaching the last page. One option is to ask participants for their email addresses or mail addresses at the beginning of the study, and to send the debriefing information to them by email or hard-copy mail. Another option is to have a button on each page that says “Quit the study”, and which takes them to the debriefing page. Because participants might quit without clicking on the link that says “Quit the study”, though, a combination of both approaches may be best.

Despite our best efforts to design a clear and comprehensive debriefing that reaches all participants, it is impossible to anticipate every question a participant might have. Therefore, the

debriefing must also include some method of asking additional questions and receiving a prompt reply.

Deception

In social science research, we sometimes deceive our participants. Deception can only be justified when the deception 1) is necessary in order to accomplish our research goals, and 2) is justified by the potential benefit of our research. Furthermore, APA (2002) Standard 8.07 requires that “Psychologists explain any deception that is an integral feature of the design and conduct of an experiment to participants....” (p. 12). As discussed above, though, it is physically possible for participants to quit an experiment before they reach our debriefing page, or to reach our debriefing page but not read it. Even if researchers provide an alternative method for participants to be debriefed, there is no guarantee that participants will take advantage of this opportunity. In on-line studies, researchers cannot guarantee that every participant is debriefed. Therefore, in my opinion, researchers must never deceive a participant in an on-line experiment.

The Right to Withdraw

Participants have the right to withdraw from a study at any time for any reason. For example, APA (2002) Standard 8.02 charges psychologists to inform participants about “their right to decline to participate and to withdraw from the research once participation has begun” (p. 11) and about “the foreseeable consequences of declining or withdrawing” (p. 11). Standard 8.04 states that when clients/patients, students, or subordinates are used as participants, “psychologists take steps to protect the prospective participants from adverse consequences of declining or withdrawing from participation” (p. 11).

In laboratory research, participants may feel social pressures to remain in a study. These pressures may include social pressure to be polite, or may be caused by overt pressure from the researcher, such as an expressed need for data. Because of the lack of social contact in an on-line study, participants are likely to feel less pressure to remain in a study. This is an ethical advantage of on-line data collection.

However, if participants are being rewarded for their participation, steps need to be taken to protect participants’ right to withdraw. Participants who withdraw before completing an entire study should, in most cases, receive either partial or complete rewards. If the information needed to give this reward, such as contact information or student number, were not collected until the end of an on-line study, participants who withdrew would receive no reward at all. Therefore, to ensure that participants in an on-line study are able to withdraw, the information necessary to give participants their reward must be collected at the beginning of the study, not the end.

Confidentiality

APA (2002) Standard 4.01 states that “Psychologists have a primary obligation and take responsibility to protect confidential information obtained through or stored in any medium....” (p. 7). Protecting the confidentiality of data collected in an on-line study requires somewhat different procedures than protecting the confidentiality of paper-based data. First, secure sockets layer should be used when data is sent to the server, so that data transmittal is secure. Second, that data on the server itself can be protected by such security devices as encryption. With these precautions being taken, data collected on-line is likely as secure as data that is locked in our researcher labs. Either type of data can be stolen by skilled professional thieves (although the skill-sets of the two types of thieves are somewhat different), but it is relatively secure.

However, many people are more concerned about security issues surrounding the Internet than they are regarding security issues in office areas. Therefore, additional steps should be taken to ensure confidentiality in on-line studies. Identifying information required to indicate

consent, to provide contact information for debriefing or payment, or to assign credit for research participation should be kept in a separate location from data collected from the study itself. For example, it can be kept in a separate database. If possible, questionnaires and tests should be designed so that no identifying information will be given in the study data itself. Then, if the worst happens and the data is accessed by someone without the proper authority, the data itself will at least be anonymous.

Protecting the Copyright of Testing Materials

APA (2002) Standard 9.11 states that “Psychologists make reasonable efforts to maintain the integrity and security of test materials and other assessment techniques....” (p. 14). Copyright holders will vary widely in the security procedures that they consider acceptable. Some copyright holders will be comfortable with researchers including questionnaire items in on-line studies without any security procedures, particularly if the items have already been published in a journal article, dissertation, or book chapter. Other copyright holders will be satisfied if access to on-line tests is guarded by password security. Others will require that the website address of the on-line study never be given to research participants and that participants are supervised at all times while viewing the testing materials. Still others will refuse to allow the testing materials to be part of a website under any circumstances. It is the researcher’s responsibility to obtain permission to use tests and questionnaires in their research, and to candidly discuss how the testing materials will be administered and what security procedures will be used. If researchers are unable or unwilling to implement the security procedures that the copyright holders desire, then those materials cannot be used in the on-line study.

Children

Not all people are legally capable of giving consent to participate in research. For example, children cannot provide their own consent to participate. APA (2002) Standard 3.10 states “For persons who are legally incapable of giving informed consent, psychologists ... obtain permission from a legally authorized person....” (p. 7). This standard places the burden on researchers to ensure that potential participants are legally capable of consenting. The most likely violation of this principle will occur when a child or teen-ager attempts to participate in a study.

In traditional research studies, in which the researcher meets each participant in person, the danger of including children in one’s research is reduced because potential participants who are obviously under-aged can be challenged. However, because researchers do not meet their participants in on-line research, it is possible that children will complete an on-line study. Researchers need to take care to ensure that children do not complete their studies without parent/guardian consent.

This issue was pointed out by Nosek, Banaji, and Greenwald (2002). They proposed several possible solutions. One partial solution would be to ask participants how old they are on the consent form. If a participant admitted to being less than 18, they could be told they are not allowed to participate. Another partial solution is to present the study in such a way that it would not appeal to children – the use of cartoons, for example, should be avoided. A third partial solution would be to advertise the study in adult-oriented venues.

In any study, we cannot guarantee the exclusion of children unless each potential participant provides proof of age, such as a driver’s license. Such procedures are not usually taken in traditional studies, where we rely upon adherence to advertised age restrictions and visual inspection to exclude children. In my opinion, because visual inspection of research participants

is not possible in an on-line study, the inclusion of one or more of these additional precautions is necessary.

Ethical Issues in Other Types of Internet Research

The Internet is an area that is being used increasingly for research of all types. This paper has discussed ethical issues related to the administration of surveys and tests over the Internet. In observational research, research participants may not realize that they are involved in a research study. Observational research can be conducted on the Internet, particularly in chat rooms, newsgroups, and listservs. The ethical issues involved in these types of studies have been discussed by Marcell and Falls (2001).

Conclusion

The effectiveness and ease of conducting on-line studies strongly suggests that this method of data collection will become an increasingly popular tool in any research area where direct contact with the researcher or with other participants is not absolutely required. Because on-line studies are typically conducted without any personal contact between the researcher and the research participant, and because research participants may quit the study part-way through, without the researcher being aware of this, careful consideration must be given to methods needed to ensure an ethical study. These adjustments are relatively easy, however, and should not deter researchers or IRB boards from on-line research.

References

- American Psychological Association (2002). *Ethical Principles of Psychologists and Code of Conduct*. American Psychological Association.
- Brinbaum, M.H. (2001). *Introduction to Behavioral Research on the Internet*. Upper Saddle River, NJ: Prentice-Hall.
- Nosek, B.A. & Banaji, M.R. & Greenwalk, A.G. (2002). E-Research: Ethics, security, design, and control in psychological research on the Internet. *Journal of Social Issues*, 58, 161-176.
- Marcell, M.M. & Falls, A.L. (2001). Online data collection with special populations over the World Wide Web. *Down Syndrome: Research & Practice*, 17, 106-213.