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# Confidentiality and anonymity of participants

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# Confidentiality and anonymity of participants

## **Abstract**

Communication research is evolving and changing in a world of online journals, open-access, and new ways of obtaining data and conducting experiments via the Internet. Although there are generic encyclopedias describing basic social science research methodologies in general, until now there has been no comprehensive A-to-Z reference work exploring methods specific to communication and media studies. Our entries, authored by key figures in the field, focus on special considerations when applied specifically to communication research, accompanied by engaging examples from the literature of communication, journalism, and media studies. Entries cover every step of the research process, from the creative development of research topics and questions to literature reviews, selection of best methods (whether quantitative, qualitative, or mixed) for analyzing research results and publishing research findings, whether in traditional media or via new media outlets. In addition to expected entries covering the basics of theories and methods traditionally used in communication research, other entries discuss important trends influencing the future of that research, including contemporary practical issues students will face in communication professions, the influences of globalization on research, use of new recording technologies in fieldwork, and the challenges and opportunities related to studying online multi-media environments. Email, texting, cellphone video, and blogging are shown not only as topics of research but also as means of collecting and analyzing data. Still other entries delve into considerations of accountability, copyright, confidentiality, data ownership and security, privacy, and other aspects of conducting an ethical research program.

## **Disciplines**

Communication Technology and New Media | Other Communication

## **Comments**

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researchers, especially those in the social sciences. In particular, the problems associated with underpowered statistical tests, nonnormal distributions, violation of the homogeneity of variance assumption, and nonrandom samples, when paired with NHST are well documented. Less well documented is a growing movement toward the use of confidence intervals surrounding dependent variables, and an evaluation of the precision of these confidence intervals as a substitution for the use of NHST and the  $p$  value estimation associated with it.

It may be the case, for example, that when examining the differences in mean scores across multiple treatment groups, means and standard deviations do a perfectly adequate job of providing evidence for the retention or rejection of null hypotheses. If different means are detected between two groups, the confidence intervals surrounding these means are fairly small (relative to the scalar on which they are measured), and these confidence intervals do not overlap, then a researcher may be fairly trusting of the fact that the population scores for the groups under examination are in fact different.

Shifting the focus from the retention or rejection of null hypothesis using NHST to an assessment of the precision of measures may also be helpful in combating publication bias against null findings; research that is well designed and executed is unlikely to produce exceptionally wide confidence intervals across dependent variables. Thus, the retention of the null hypothesis based on these criteria may not be interpreted as an indication of sloppy work, but as counter-evidence to the hypotheses proposed by the theoretical framework from which one began. Given the reification of NHST, particularly in the social sciences, it may be a long uphill battle before confidence intervals are commonly used in this manner.

*Kenneth A. Lachlan*

*See also* Significance Test; Standard Deviation and Variance; Standard Error, Mean; Standard Error; Standard Score; Statistical Power Analysis

### Further Readings

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## CONFIDENTIALITY AND ANONYMITY OF PARTICIPANTS

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Confidentiality and anonymity are ethical practices designed to protect the privacy of human subjects while collecting, analyzing, and reporting data. Confidentiality refers to separating or modifying any personal, identifying information provided by participants from the data. By contrast, anonymity refers to collecting data without obtaining any personal, identifying information. Typically, anonymity is the procedure followed in quantitative studies, and confidentiality is maintained in qualitative studies. In both cases, the researcher gathers information from participants, and it is this information that becomes the data to be analyzed. For the social scientist, peoples' behaviors and experiences are of great interest, rather than an exposé about individuals. Researchers are expected to respect their participants but are not as interested in reporting the actions of a named person. This entry elaborates on the privacy practices of anonymity and confidentiality by providing definitions and examples of each, explaining the rationale to protect privacy, and discussing some unique circumstances.

## Definitions

### Anonymity

In an anonymous study, the researcher cannot trace the data to an individual participant. Demographic data may be collected from participants from which researchers describe their characteristics in aggregate. In this way, readers obtain a general understanding of who participated in the study and appraise how representative a sample may be of a larger population. They are interested in the biological sex, age, educational level, ethnicity, nationality, religion, socioeconomic status, educational attainment, or any number of characteristics relevant to the study. However, these indicators do not reveal the personal identity of any one individual who participated in the study. Therefore, there are typically no privacy issues about which to be concerned.

Perfect anonymity arguably comes when the following aspects of identity are masked: legal name, location, pseudonyms linked to name or location, appearance and behavior patterns, or social categorization. Instead of gathering these characteristics about participants, researchers are inclined to request descriptive information by category. Because anonymity is typical in quantitative studies, researchers provide a survey or questionnaire to participants and include items where these characteristics are solicited. For example, researchers frequently ask for biological sex, ethnicity, age, or socioeconomic status rather than ask for a name or birthdate. After data collection has ended, the researcher is unable to trace one particular survey to the one, unique individual who completed it.

### Confidentiality

In a confidential study, the participant is known by the researcher, a situation that commonly arises during an interview, for example. The interviewer knows the name of the participant and may know the address or other personal, identifying information. The researcher has the responsibility to protect the participant from harm by altering any personal, identifying information that may be revealed during the interview. For example, researchers assign pseudonyms to the participants. When participants refer to others by name, the researcher also assigns these individuals a pseudonym. If the participant

mentions a city street, a park, a school, an employer, or any other information that could connect the data to a person, the researcher masks this information to the reader and discloses only the information shared in the interview that supports the study's finding.

### Rationale to Protect Privacy

Anonymity and confidentiality are important because they protect the privacy of those who voluntarily agree to participate in research. In this way, participants may be more comfortable completing a survey or participating in an experiment or interview if they have some assurance that the researcher will not reveal the information provided. Researchers are interested in the aggregate of the information that people provide, regardless of the specific person who provided the information. Conveying this motivation to potential participants facilitates recruitment. To keep participants safe from harm, embarrassment, or repercussions from employers, for example, informants may feel secure with assurances of anonymity or confidentiality in order to provide their experiences to researchers. Researchers, therefore, have the ethical responsibility to ensure that the individuals who participate in research are not connected to the study or identifiable by name, address, or birthdate, etc.

Mandated ethical research practices have evolved over several decades. One specific example impacting confidentiality and anonymity relates to the "tearoom trade" study conducted by Laud Humphreys. In this study, the sexual practices of homosexual men were observed in quasi-public spaces without informed consent, voluntary participation, or warrant of confidentiality. This study, among others, led to federal legislation that required research institutions to oversee research protocols and ensure plans were made to protect human subjects in a variety of ways. Some academic disciplines, such as the American Psychological Association, established ethical standards for conducting research, as well. Researchers are expected to adhere to certain procedures to inform research participants.

### Procedures

Participants learn about anonymity or confidentiality via the informed consent document. Prior to

participants' decisions to partake in the research project, they should have anonymity or confidentiality explained to them and be assured of the level of privacy that the study in question upholds. Sometimes, identifying information is provided, such as a name on a consent form, an e-mail address, or an IP address. In these circumstances, the information should be separated from the data and/or removed from the data as soon as possible.

## Unique Circumstances

### Public Behaviors Are Under Investigation

One situation that might challenge the need for anonymity or confidentiality is when the study is an observational study and/or the behaviors are those typically displayed in public. Consider, for example, political candidates who regularly appear in mediated forums. A study of their public discourse without consent would be appropriate because of the public nature of the data itself. Also, consider individuals who are in public spaces engaging in public behaviors. In these situations, observational studies or field research is permissible without informing individuals that they are being observed. In some of these circumstances, the researcher may not know the identity of the subjects under observation, thereby protecting the anonymity of them. For example, a study of nonverbal behaviors by picketers during a labor strike would require no need to solicit names from picketers. However, observational studies conducted of persons in private spaces, such as their homes, will necessitate the protection of confidentiality. However, care should be taken by the researcher to evaluate the public milieu, the legal activities happening in the public space, and potential harm that may come to participants.

### Technology

Research involving the Internet presents unique challenges to anonymity and confidentiality. Researchers can instill safeguards and convey these to potential participants. However, the potential for cyberhacking or keylogging can rarely be secured by the researcher. Cyberhacking refers to a third party who breaks through the encryption of a firewall. After such a breach, the

hacker has full access to anything protected by the firewall. As such, a hacker could obtain information found in a survey or saved on someone's computer. This hacker could proceed to coerce the researcher or the participants if he or she is so inclined. Potential participants can be informed of this risk in the *Risk* section of a consent form as in the following example:

You may experience technological risks by using the M-Turk and Qualtrics services. I cannot protect your information from cyber users who may take actions on these sites.

Keylogging refers to a computer storing the recent keys tapped into a computer. This issue is particularly salient on public computers. A research participant may log into a system with his or her credentials, complete an online survey or questionnaire, and then log out. A computer with keylogging software and a savvy user could then gain access to the sequence of keys entered by the previous user. In this way, the savvy user gains access to the research participant's information. Language for an informed consent form regarding this issue might read as follows:

As a participant in this study, please be aware that certain keylogging software programs exist that can be used to track or capture data that you enter on this computer and/or websites that you visit.

Another technology issue arises when users of social Internet sites perceive these spaces to be private. Chat rooms, for example, may be perceived as a "safe space" where members can disclose, vent, and share information without inhibition. However, the chat room may not have a privacy agreement that protects this information from researchers who join the chat room to analyze these disclosures. The capabilities of the Internet add extra considerations for researchers to contemplate when safeguarding the confidentiality and anonymity of participants and their information. When researchers cannot protect their participants from potential harm, the researcher should make participants aware of potential privacy breaches. In this way, the researcher practices due diligence to protect human subjects.

### No Anonymity or Confidentiality

Occasionally, a research study is designed in such a way that confidentiality and anonymity cannot be assured. One instance of an institutional review board (IRB) approved project in which confidentiality could not be maintained stemmed from a study of a large, multigenerational family. This case study relied on interviews of 55 members of one, extended family. Interview data contained familiar stories referencing family members such that any attempt to mask identities would be futile. The researcher for this study applied to the IRB with a consent form that stipulated the inability to protect confidentiality, which was approved.

Focus groups restrict the possibility for confidentiality because the researcher cannot control what participants might say after the focus group session. Researchers should disclose what procedures they will follow to protect the data and inform participants that fellow participants may disclose information after the session, to which the researcher cannot protect the information. In this way, potential participants can make an informed decision about participating. Participants might still be willing to offer information for the project, but may exhibit discretion in what they share as a means to protect their information.

### Legal Requirements

Researchers may become the confidants of highly sensitive material. In some instances, researchers are required by law to disclose information shared with them during an interview, despite the informed consent document. These situations include the likelihood of a participant inflicting harm on self or others; imminent threat to or sexual molestation of a child; pending terrorist activity; or threat to the public. For example, a pregnant woman participating in a research study disclosed that she was a cocaine addict. The researcher notified human services professionals and the woman lost custody of two children and her infant was removed immediately after birth. The woman filed a lawsuit claiming she was guaranteed confidentiality; however, because she was inflicting harm to others, she lost the lawsuit. As of 2015, the suit was under appeal. As one can see, retelling disclosures in these categories must be weighed very carefully against the confidentiality entrusted to the participant.

### Breaches

Despite researchers' best efforts, some things are unforeseen or out of their control. When private information is revealed, researchers are expected to notify their institution's IRB immediately to collaborate on the best practices to protect the participants. For example, a notification may be sent to the participants to inform them of the breach and potential consequences. These decisions are unique to the circumstances of each situation.

Several aspects of confidentiality and anonymity are warranted during the design of a study, the implementation of data collection, and the analysis of data. Ethical researchers shield their participants and their information to the best of their ability and communicate their assurances before a participant agrees to participate in a research endeavor.

*Tina A. Coffelt*

*See also* Anonymous Source of Data; Ethics Codes and Guidelines; Experiments and Experimental Design; Human Subjects, Treatment of; Informed Consent; Qualitative Data; Quantitative Research, Steps for

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## CONFLICT, MEDIATION, AND NEGOTIATION

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Communication is a critical component of conflict, mediation, and negotiation. Communication researchers who study conflict, mediation, and negotiation are concerned with how communication