



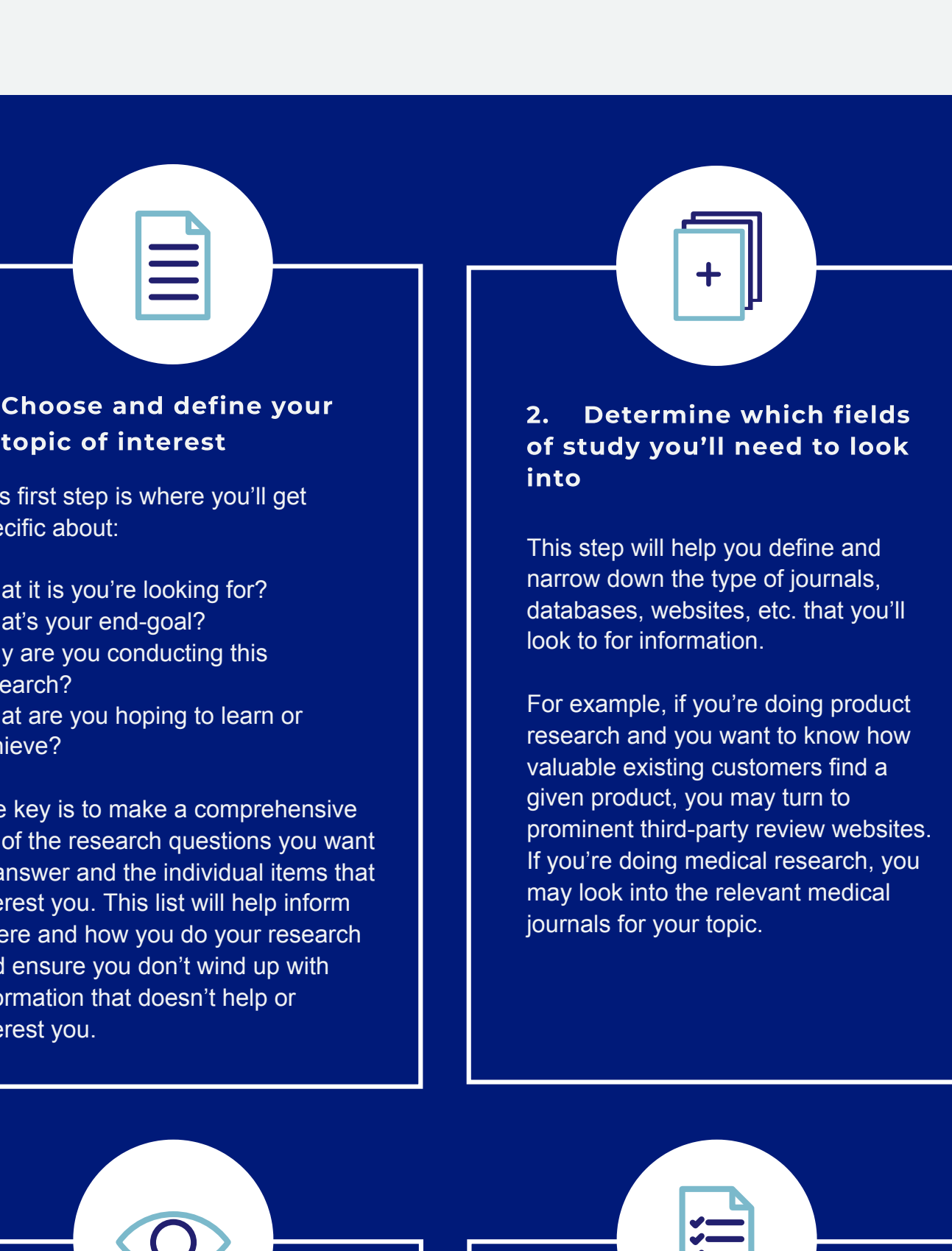
## Conducting Online Research

Process, Types, Tools, Tips

### Overview: The Online Research Process in 6 steps

The typical online research project goes through 6 key steps. While you probably don't tick off all these steps every time you research something online, following them can help ensure your research is complete, accurate, and useful.

Let's talk about what those steps are and why each one is worthwhile for just about any online research you do.



#### 1. Choose and define your topic of interest

This first step is where you'll get specific about:

- What is it you're looking for?
- What's your end-goal?
- Why are you conducting this research?
- What are you hoping to learn or achieve?

The key is to make a comprehensive list of the research questions you want to answer and the individual items that interest you. This list will help inform where and how you do your research and ensure you don't wind up with information that doesn't help or interest you.

#### 2. Determine which fields of study you'll need to look into

This step will help you define and narrow down the type of journals, databases, websites, etc. that you'll look to for information.

For example, if you're doing product research and you want to know how valuable existing customers find a given product, you may turn to prominent third-party review websites. If you're doing medical research, you may look into the relevant medical journals for your topic.

#### 3. See what research has been done and conclusions have been drawn

Step 3 is likely the part of the process you most often associate with "research." Now's the time to dig into your research sources, read up on the topic, and look to see how other people have answered the questions you laid out for your research.

The important part of this step is to stay organized and on-task. It's easy to get lost in all the information, so it's best to have a clear process and to keep your sources and learnings organized.

#### 4. Evaluate your sources and information

In today's digital world, this step is even more important than the rest. No matter the topic of your research, you need to take the time to understand and evaluate your sources. Who's writing about the topic? Why are they interested or invested in it? Do they have anything to gain from what they're saying?

This step is when you can identify any biases or your sources have. Think of these **biases as gaps** in your research—and fill them in with opposing viewpoints and additional information.

#### 5. Determine additional research data collection methods needed and conduct

Whether as a result of biases or something else, it's not uncommon to find gaps in the research that's already been done. When that happens, you may consider conducting your own primary research to help fill in those holes in your information.

For example, if you're missing qualitative market research, you may choose to conduct an online focus group of consumers in that market. For medical research, filling in the gaps might mean conducting an extensive clinical trial.

#### 6. Organize your full body of research and draw conclusions

Once steps 1 through 5 are finished, you're ready to start digging into your body of research and drawing your conclusions. This is where you'll make a final decision on which product to buy or identify where in the market to position your own business, for example.

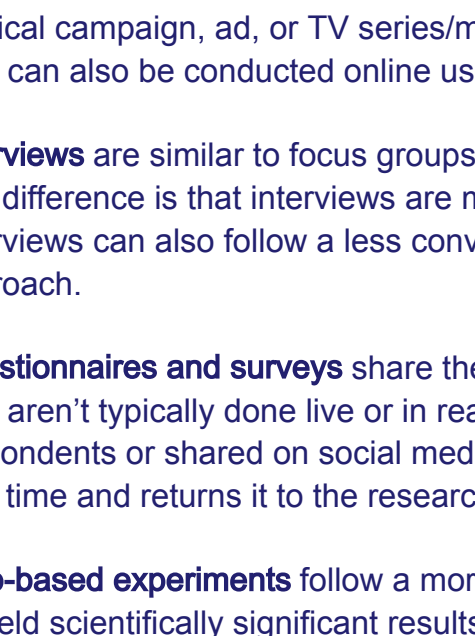
### Common Types of Online Research: Methodology

#### What is a Research Methodology?

Methodology in research is defined as the systematic method to resolve a research problem through data gathering using various techniques, providing an interpretation of data gathered and drawing conclusions about the research data. Essentially, a research methodology is the blueprint of a research or study (Murthy & Bhojanna, 2009, p. 32).

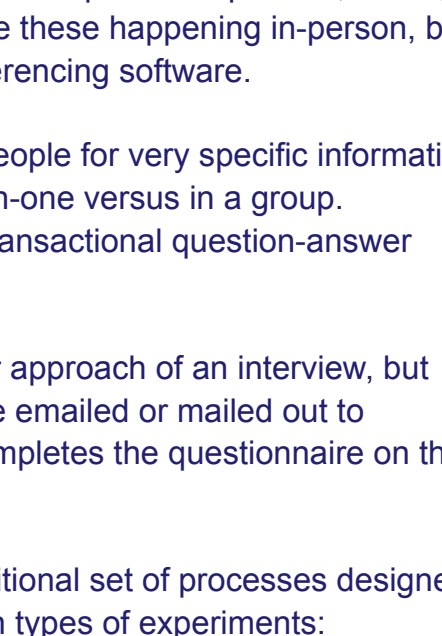
#### Research Methodology

methodology provides the underlying reasons why certain methods are used in the process



#### Research Methods

methods cover the technical procedures or steps taken to do the research



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#### Quantitative Research

Quantitative research involves studying something using statistical or mathematical techniques and it's used to understand how often a particular phenomenon occurs. The "quantitative" part of this type of research refers simply to numbers.

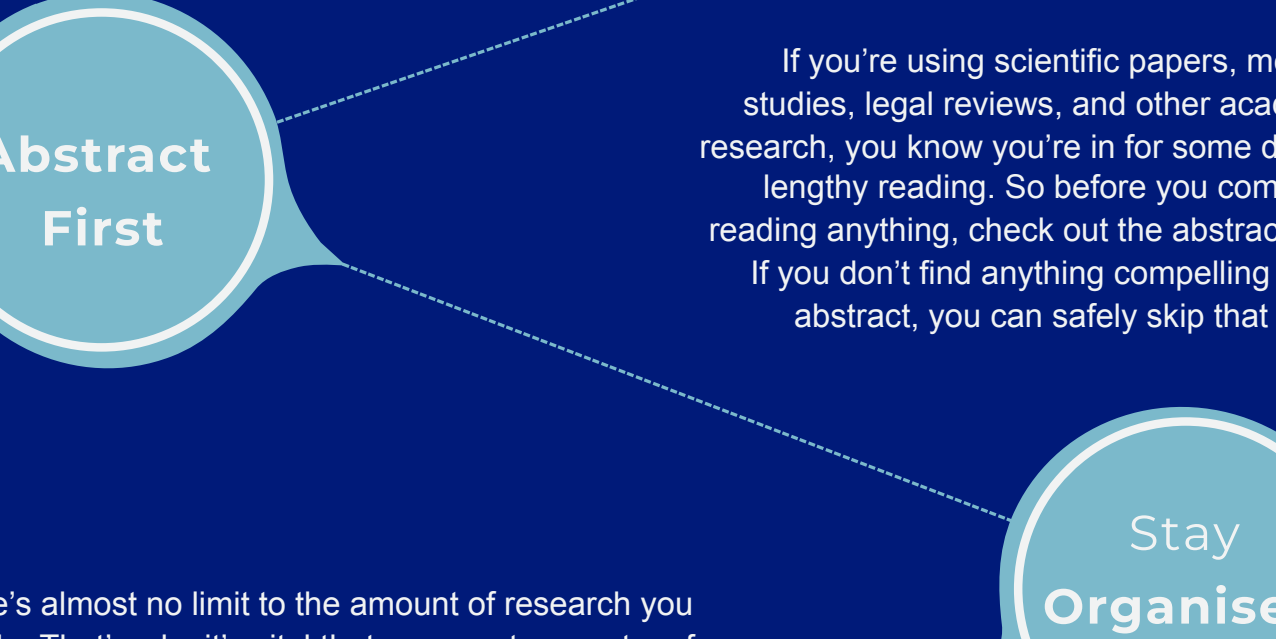
#### Qualitative Research

Qualitative research, on the flipside, focuses more on observations and non-numerical qualities. It's used to answer questions about how and why phenomena occur, versus how often.

#### Mixed Research

A contemporary method sprung from the combination of quantitative and qualitative approaches. According to Brannen and Moss (2012), the existence of the mixed methods approach stemmed from its potential to help researchers view social relations and their intricacies clearer by fusing together the quantitative and qualitative methods of research while recognizing the limitations of both at the same time.

### Mixed Research Triangulation Strategy



### Common Types of Online Research: Methods

#### Research Methods:

method is the technique used in gathering evidence; methodology, on the other hand, "is the underlying theory and analysis of how a research does or should proceed" (Kirsch & Sullivan, 1992, p. 2).

**Content analysis** is the typical web search and read method of conducting research. In this case, you're consuming secondary research that's already been conducted and learning from that.

A **focus group** is when you bring together a group of people to take part in a guided discussion—often this discussion is about their experience with a particular product, brand, political campaign, ad, or TV series/movie. You might picture these happening in-person, but they can also be conducted online using video chat or conferencing software.

**Interviews** are similar to focus groups—you're asking real people for very specific information. The difference is that interviews are more often done one-on-one versus in a group. Interviews can also follow a less conversational and more transactional question-answer approach.

**Questionnaires and surveys** share the question-and-answer approach of an interview, but they aren't typically done live or in real-time. Surveys can be emailed or mailed out to respondents or shared on social media. The respondent completes the questionnaire on their own time and returns it to the researcher when finished.

**Web-based experiments** follow a more regimented and traditional set of processes designed to yield scientifically significant results. There are three main types of experiments:

- Controlled experiments
- Natural experiments
- Field experiments

While the topic varies, many of these experiments can be adapted to take place online.

**Clinical trials** are a type of experiment most often done in medical and psychological research. In a clinical trial, the experiment is designed to answer a very specific set of questions. The classic example of a clinical trial is a drug or pharmaceutical trial—designed to answer whether a particular drug affects a given disease or injury.

**Online ethnography.** In an ethnographic study, the researcher essentially lives among their research subjects and observes their behavior, social structures, and more. Ethnography is most commonly used in behavioral research like sociological and anthropological studies. Online ethnography simply refers to the method by which the researcher interacts with subjects—online.

### The SAGE Handbook of Online Research Methods

### Tips for Better, Faster Online Research

#### Don't get Distracted

While similar to the previous tip, defining your goal for research is more action-oriented. When you get answers to the questions outlined above, what will you do with them? All the questions you seek to answer with your online research should serve this overarching goal—helping you make a decision or choose your next course of action.

With all of the information available on the internet, it's really easy to get lost and distracted from answering the original questions you set out.

That's why it's so important to get clear about what those questions are, and hold yourself to researching those answers.

#### Clear Goals

If you're using scientific papers, medical studies, legal reviews, and other academic research, you know you're in for some dense, lengthy reading. So before you commit to reading anything, check out the abstract first. If you don't find anything compelling in the abstract, you can safely skip that paper.

#### Abstract First

There's almost no limit to the amount of research you can do. That's why it's vital that you create a system for determining which information you'll look at, plus how and where you'll store it. Here are a few suggestions for staying organized:

- \* Create Google Drive folders to store PDFs and other documents
- \* Create a designated folder in your Bookmarks to store websites and URLs
- \* Use a reference management software (like Mendeley) designed to help organize extensive research

#### Stay Organised

### ETHICS IN ONLINE RESEARCH

Some ethics issues require special consideration in an Online research context, the complexities of which are not always obvious to researchers or participants.

These issues require extra care, and consultation of relevant ethics guidelines, to ensure minimising potential risks. They include:

#### DATA SECURITY AND TRACEABILITY

Researchers should carefully consider where and how any research data will be collected and stored online.

Considerations to pay particular attention to include:

- Use of third party services/servers – are these within or outside the EU?
- Are adequate encryption and/or password protection methods in place?
- Levels of risk of tracing published data back to original sources/context, e.g. verbatim quotes from online discussion groups.

#### ANONYMITY AND RE-IDENTIFIABILITY

Considerations to pay particular attention to include:

- Are any data being collected that could potentially lead to identification of persons, e.g. IP addresses?
- Could non-personally identifiable data potentially become identifiable if combined with other data sources (particularly any sources that are available and accessible in the public domain)?
- Could data that have been anonymised potentially become re-identifiable, e.g. by combining with other available data sources?
- Algorithms can potentially be used to analyse data/information in order to uncover/infer characteristics and traits of individuals that are "baked into the data". Are there any associated risks here, e.g. in dissemination plans?

#### PUBLIC/PRIVATE DOMAIN DISTINCTIONS ONLINE

What is reasonably considered public and private online continues to be debated, especially in relation to research applications and user expectations. Considerations to pay particular attention to include:

- Recognising and assessing the blurred boundary between public and private spaces online, and how this relates to individual research contexts.
- Considering people's expectations, understandings and wishes about how their online data traces may be used, and when gaining consent would be appropriate.
- Issues of copyright and ownership of online data, and permissions required for research usage.
- If it is decided that consent is not required/appropriate/practicable, ensuring rigorous safeguards are in place to protect personal identities.

#### CONSENT, WITHDRAWAL AND DEBRIEF PROCEDURES ONLINE

Ensuring rigorous, effective and reliable procedures are in place, comparable with those commonly used offline, can present difficulties in online research. Considerations to pay particular attention to include:

- Implementing procedures to protect vulnerable groups and/or those not able to give proper informed consent
- How to ensure participants engage properly with study information sheets and informed consent processes
- How to effectively track and monitor participants, and be able to detect and address any upset/distress/harm caused where these risks may be higher

Guides outline appropriate ethics practices and principles for Online Research

[Link 1](#)

[Link 2](#)

### Guidelines and Resources

- Methods: Conducting research on the internet – a new era
- The Association of Internet Researchers
- Web Survey Methodology guides the reader through the past fifteen years of research in web survey methodology.

### Software resources/tools

The software packages and tools mentioned here are indicative and intended to offer examples of potentially useful packages and services that may be suitable for researchers wanting to gather research data online.

Disclaimer:

The nature of these tools and services, including their (often evolving) functionalities and current 'terms and conditions', should be checked carefully to assess their suitability for the intended purpose prior to adoption.

Compliance of these tools with current policies and guidelines, including research ethics and data protection, must be fully considered, consulting with the relevant units (e.g. Human Research Ethics Committee; Data Protection, Information Security) where necessary.

- Qualtrics
- Jisc
- Wextor
- LogAnalyzer
- Big Data Text Analysis
- Mendeley
- Refworks

### Flexible Online Learning Donegal