# Conducting Research

Research is a valuable skill that can take some time to learn. It is about asking the right questions, collecting data and analysing the information you find. When correctly done, research will improve the quality, creativity and efficiency of your design projects.

Research doesn’t have to be daunting. It can be as simple as sitting down with a client and talking about what they need from a design. It can also involve examining a poster design, photograph or material and textile samples to explore the elements and principles that make it work (or not work). The key to good research is to develop a structured system for raising questions, collecting data about those questions and analysing the results. This way you can be confident about the accuracy and detail of your research findings.



Fig 1. Pixabay (n.d.), Conducting Research Online

Let’s take the example of a client brief. What would you, the designer, need to know about the project? It may be some, or all of the following:

* Project objectives
* Target audience
* Key messages/vision
* Brand guidelines
* Budget and timeline
* Technical requirements
* Content and visual assets to be used in the design
* How communications (feedback and revisions) will happen
* Contact details for the team
* Legal or regulatory requirements

You may decide to raise a set of questions for your client in an email or perhaps you will conduct several meetings with them in person, working through each issue and asking follow up questions. Then you would reflect on this information, evaluating how you can plan for the project and execute the designs.

## Research methods

It is important to note however, that research doesn’t stop at the client brief. In order to better understand a target audience for a project, you may need to interpret market research. This can include identifying the age, geography, socioeconomic or financial profile of the customer base. To find inspiration for your designs, you may need to consider their cultural interests, hobbies and lifestyle. For in-store design and hospitality interior design, **Audience Segmentation** is a concept that refers to how a marketing team looks at a target audience, and divides them into subgroups depending on their profiles. Should you choose to look further into these industry specialisms, this will help you to strategically tailor a message.

The client may be able to give you this information, but it is useful and more professional, to do your own research so you can ‘get into the mindset’ of either your client, or your target audience, depending on your industry specialism (residential, commercial, hospitality etc).

Research also involves exploring different current and historical designs, to discover what other designers have done in similar situations. This will help you to create innovative designs for your client, and not to repeat ideas, or create work that might be considered outdated or cliched.

Research methods are a way of structuring how you collect, organise, and analyse data to make sure that your results include:

* Accurate answers to the questions you have raised
* Enough information for you to complete your project

Choosing an appropriate method for your project is a crucial part of the research process. Using an established method will:

* Improve the trustworthiness of your research findings (this is called the validity of your research).
* Provide you with a road map for undertaking a successful project.
* Give the reader of your research findings (your client or other stakeholders) a clear understanding of what you did to collect information plus analysis of the findings.
* Create transparency in your research by following an established method while describing the process and the data in detail.

There is a wide range of methods to choose from, each with a different strategy or approach. Some of these are described in the sections below. The method you choose for your project will depend on many different issues, such as:

* Size of your project e.g. the scope of the questions you are asking.
* Length of time you have to complete the project.
* Type and availability of the information (data).
* The quantity of data you will need to investigate your questions and uncover the answers.
* Type of research methods that are commonly used in your subject area.
* The trustworthiness of the data you collect (e.g. the possibility of error or bias in the information that you collect). Many research methods will include strategies for overcoming or limiting this type of problem

## What is data?

Data is information. It can be quantitative or qualitative information about people or objects. Data is used to analyse a research question, and provide evidence for, or against an argument in response to the question.



Fig 2. Unsplash (n.d.), Analysing Data as Part of Research

We often think of data in a numerical sense. Some typical examples of data are things like the percentage of people who have a degree in different countries, the number of freelance designers in France, who run their own businesses, and the responses of a hundred people to a survey about attitudes towards the role of art and design in promoting sustainability. However, data does not need to be limited to numbers. Interviews, books, magazines and policy documents or even an artist's body of work can all be used as data for a project.

The type and volume of data you will collect will depend on issues such as:

* The questions you have
* The data that is available to you
* The usefulness of this data for answering your questions or providing evidence for (or against) a particular argument

## Quantitative vs Qualitative research

Students often mistake qualitative and quantitative research in their different research methods. Some confuse quantitative or qualitative research as methods in their own right or as a way to group different types of methods together. However, this is not strictly the case.

**Quantitative research** examines data in terms of numbers. For example, the number of visitors to a museum exhibit in June, versus October. The number of sales of a particular brand of clothing, or perhaps the amount of customers a cafe has at certain times of the day.

**Qualitative research** has a narrower focus and is typically interested in answering ‘why’ a particular phenomenon has occurred. It will often involve an in-depth examination of a smaller set of data (e.g. a collection of artwork, interviews with customers of a cafe, an examination of historical documents etc.). This type of research is more focussed on an interpretation of the importance placed on the objects/subjects under study.

**Mixed methods** research is simply when a researcher conducts both qualitative and quantitative research, as part of their project and most research methods tend to be both.

Imagine a student who wants to examine the influence of social media on design practice. They undertake a case study using Instagram to investigate their research topic. They could undertake quantitative research by analysing the number of customers who frequent a particular cafe in order to use this info for a cafe redesign. They could also undertake a qualitative study by conducting in depth interviews with a small number of customers to discover why they prefer this cafe or if there is something in particular they like or dislike.

## Primary v Secondary research

An area worthy of mentioning is the difference between primary and secondary research. Like qualitative and quantitative research, primary and secondary research are not research methods in their own right. Instead, they simply refer to the approach that is taken in order to collect the necessary data.

**Primary research** is any strategy where the raw data is collected directly by the researcher. When carrying out primary research it is important to pay attention to the validity of the data you are collecting but to also make sure there is no bias in the way in which you are carrying out your research. We will talk more about this later.

Examples of primary research are:

* an Interior Designer carrying out a survey on the clients of a cafe or a scientist that creates an experiment
* an architect that creates models to replicate a particular design or
* a student who conducts interviews with a small group of designers



Fig 3. Pexels (n.d.), Example of Primary Research - Interview

Advantages of primary research include:

* Ability to tailor the collected data to your research question
* The most up-to-date information on an issue
* The validity of your research
* Sharing the data you collect with other designers/clients/researchers for future projects

Disadvantages include:

* Time consuming
* Can be expensive if it includes travel or a heavy use of physical, human and technological resources
* Will need very careful consideration of ethical/bias issues that may arise in the process of data gathering

**Secondary research** is any strategy that makes use of data that has been collected by others. The data may still be in a ‘raw’, or in an unorganised format, but the researcher does not need to engage in ‘field work’, or prepare complicated and time consuming strategies for data collection. For example, a student who is interested in examining the working lives of artists makes use of biographical and artistic information, collected by other researchers in the past.



Fig 4. Unsplash (n.d.), Example of Secondary Research - Accessing Published Information

Advantages include:

* Time saving
* Can collect a larger volume of data than the researcher could access alone
* Cost effective

Disadvantages include:

* Not tailored to the research question and so must be adapted
* May be difficult to prove the validity of the data. Students must be very careful to use data from reputable sources
* May need prior permission to access and use the information