What is the ideal length of a case study?

Is there an ideal length of a case study?

Josefin Larsson

Abstract

Case studies can be described and defined as an in-depth study that is based on collected, organized and integrated data about a specific and complex problem. When case studies are used as research method it is crucial to be able to fit the right amount of information into the format of a case study. If this is not done properly the content of the study may be wasted. While formatting a case study you must take in consideration who is going to read it and what you want to convey to the readers. The process of learning while reading is an individual process and peoples ability to learn and analyse differs. In conclusion, there is no right or wrong in how long a case study should be there is however some guidelines to follow. The recommended number of pages should be somewhere between 5-15. This seems to be an appropriate form to stick to.

Keywords: Case study, length, learning ability,
Introduction:

One definition of a case study says that it is a published report about a person, group, or situation that has been studied over time and also a situation in real life that can be looked at or studied to learn about something (learnersdictionary, 2016).

Another definition of a case study: “A case study is an empirical inquiry that:

- investigates a contemporary phenomenon within its real-life context; when
- the boundaries between phenomenon and context are not clearly evident; and in which
- multiple sources of evidence are used. (Yin, R. K. 1989)

You use case studies to describe diverse happenings and events that can’t be described by mathematics and statistics. In these studies the complexity is the main focus, and the case study research is described as exploratory, conceptual and anecdotal. And this is the research you do before quantitative research. But sometimes quantitative research is not compatible with more complex problems, and therefore case studies can help to increase the teaching and knowledge levels. To be able to know how case studies work as a teaching method and as a research method we must study the learning process with the rapports readers. If the learning process does not work because of the thickness and length of the study, or if the research is too much shortened and slimed down, the readers may not be able to recognize and analyse the core values of the study. (Gummesson, E. 1991)

One of the problems with the use of case studies as a research and method may depend on that there is no specific template that you are forced to follow while writing. But there are some requirements of what a case study should contain. This means that you have no rules to follow while writing your case study, however you need to know who you are writing for, who is your respondent. The readers of the study must be susceptible to the content of your study or else the content may be wasted. (Pratt, M. G. 2009) One question you can discuss in the use of case studies is, if there is an ideal length.

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Method

The purpose of this paper is to study and examine if there is an ideal length of a case study. I will base the problem the conclusions and implications on a theoretical framework that consists of relevant literature for this topic. The paper is bases on secondary sources. The data from the secondary sources have been collected and selected based on relevance to this papers topic. The data has been collected from
databases as Summon, Google Scholar, Web of Science and Scopus. Keywords used in the search moment: Case studies, format, length, design, learning, qualitative. All the scientific articles used in this paper have been peer-reviewed.

Theoretic framework

“Human short-term memory can hold only a half dozen chunks, an act of recognition takes nearly a second, and the simplest human reactions are measured in tens and hundreds of milliseconds, rather than microseconds, nanoseconds, or picoseconds. These limits are among the most important invariants of intelligence.” (Simmon H. A. 1991 p. 7)

How you process and analyse information is individual, and every individual’s capability to receive information by reading is shifting. (Steffens, K. 2015)

Case studies are a claimed teaching method but not in all field areas of teaching is it an effective method. The most common areas you use case studies is in medicine and law. In these areas case studies make up most of the students exercises work. Exams and assignments often comprises of case studies. (Tellis, W. 1997)

When case studies are used as a teaching method the students often prefer shorter cases, (Golich, V. L. 2000) and that the learning process first and foremost revolves around the discussion after reading and analysing individually. One of the more effective ways to use case studies as a teaching method is to divide students into smaller groups, 20-30 student in one discussion group. It is proposed in studies that suggest that the method of students and teachers teaching each other is an effective way of learning in a cognitive way. And by this learning process you may upgrade the ability to analyse more complex issues. (Tärnvik, A. 2004)

The learning ability and the style of learning differs between individuals, this has always been a factor to understand students preferences for various learning activities (Karns, G. L. 2006). This is why you may need to evaluate the students learning styles before they decide what method to use in their teaching (Vincent, A., and Ross, D. 2001).

Potential for learning is a different and sometimes superior criterion to representativeness. Often it is better to learn a lot from an atypical case than a little from a magnificently typical case. (Stake, R. 1995)

Some say that case studies are not a good way to use as a basis for generalization, but Stake, E. Robert (1978) means that it is a good method because you as an individual may use your own experience as a basis for a generalization.

In the case study research format, you have a small sample, but with a in depth description, and you must be able to fit the right amount of data to describe and explain the problems to it readers. There are some different types of case studies and the length of them variates, however all the different types have a few factors that it should contain to be valid and reliable. (Flyvbjerg, B. 2003)
Case studies are defined in many ways depending on which area of science the
definition is asked from, some common characteristics recur in the different definitions.
It is named as a research method of a specific situation and a method for knowledge
(Søilen, K and Huber, S. 2006).

You can write a case study with both qualitative and quantitative methods (Yin, 1981).

‘’As a research strategy, the distinguishing characteristic of the case study is that it
attempts to examine: (a) a contemporary phenomenon in its real-life context, especially
when (b) the boundaries between phenomenon and context are not clearly evident’’.
Yin (1981, p.58)

A case study is defined as a documented study of a specific real-life situation or
imagined scenario, used as a training tool in business schools and firms. Students or
trainees are required to analyse the prescribed cases and present their interpretations or
solutions, supported by the line of reasoning employed and assumptions made.
(BuisnessDictionary, 2016)

Harland, T. (2014) implicates that it is the providing of new theory and insights that
contributes to qualitative case study, and that you have to be cautious while writing the
study to write descriptively with a critical audience in mind. The analysis of the study
object never stops, but when you are writing a case study you need to keep in mind that
the thickness of the study not always represent how much time you have put in to it.

Some difficulties described by Woodside, A. G. (2009) is that when you want to explain
and describe (a specific process that occurs) inductively, personal interpretations and
judgements are woven in to the theory. Another difficulty can be that thick descriptions
of processes in specific contexts makes it harder to generalize to other areas.
Researchers are also criticizing case study methods variability in multiple-person
interpretations of verbal data in thick descriptions as a weakness to the method.

The format you choose to write your case study in depends on the purpose of the study,
there are three different types of case studies:

- Exploratory: is initial research that tries to look for patterns in the data and come
  up with a model within which to view this data. In this kind of research, you
  would collect the data first and do as much reading as is needed. Research
  questions for this kind of case-study can focus on “what” questions.
- Descriptive case-studies take this further and try to obtain information on the
  features of an issue. This type of case study will require a theory to point the
  data collection in the correct direction. Research questions here can again focus
  on “what” but lead to questions who describe the effects of the “what”.
- Explanatory research continues this even further by trying to analyse or explain
  why or how something happens or happened. Research question in this case are
  more likely to be of the “how” or “why” type. (Yin, R. K. 1994, pp. 4-6)
According to Yin, R. K. (1981) case studies represent a research strategy that could be likened to an experiment, a history or a simulation, this could be considered as alternative ways of doing research. You are not bound to follow a specific type of method.

To be defined as a case study it should contain an introduction, a review of the used literature, a description of the method, a discussion and a section with drawn conclusions. (Libguides, 2016).

The format and what the study is supposed contain can look very different depending in witch field of work you practice in, for an example in the field of medicine a case study is suggested to cover specific facts, data and information to be useful. A case study is useful when it gives the readers new/more knowledge or clinical decision making. (MacDermid, J. C. 2016)

To build theory from case studies is an increasing method of researching and it have its benefits and disadvantages. Research that is based on deep qualitative data is more common these days and one way to meet the challenges is to use a more precise language, use rich appendixes and tables as evidence, and a clearer statement of arguments. (Eisenhardt, K and Graebner, M. 2007). Remenyi, D., Money, A., Price, D., and Bannister, F. (2002) implicates that case studies can give a broader perspective of the object that you are researching and you have the chance to show the whole research process. But Yang, Z., Wang, X., and Su, C. (2006). indicates that it is of great importance witch type of research method and data collection method you use for the studies validity and reliability.

According to Siggelkow, N. (2007) the obstacles to overcome while writing a case study is: to make sure that you have a large enough sample. In many case studies, you only have one study object and this could be a problem when you are trying to persuade the readers that your research is valid. To overcome this obstacle, you can do cross-sectional or multi-cross-sectional case studies, however if you do this the length of the study grows. Another obstacle is that the sample is not well representative, and that the study therefor is biased. The biggest obstacle to overcome seem to be that case studies results cannot be generalized.

Baxter, P., and Jack, S. (2008) suggest that the case study method is used as a qualitative research tool to study complex phenomenon when it is being applied correctly. The determination of your subject for the case study is of great value. If you chose a broader problem area to study and analyse the thickness of the study may be overwhelming for its readers.

According to Jaspers, F. (2007) the main purpose for a case study, is theory building but it is also used to serve other purposes. For an example, they argue that case studies are very suitable for testing deterministic hypotheses, whereas surveys are preferable for testing probabilistic hypotheses.
A study with made with students and faculty in the field of medicine were made and when they were asked if they preferred problem learning or case study based learning, the answer was that both the students and faculty preferred case study based learning overwhelmingly. (Srinivasan, M., Wilkes, M., Stevenson, F., Nguyen, T. and Slavin, S. 2007) the length of the learning/teaching material is not the most important aspect, it is more important what kind of format the material is written in. (Gomm, R., Hammersley, M. and Foster, P. 2000) When you are given page constraints and editorial demands, case studies must often emphasize theory especially if the study contains multiple cases, however case studies that only studies a single case have the space and editorial freedom to contain rich construct, descriptions and stories. It is more difficult to fit and harder to describe the fundamentals in a multiple case study within 5-15 pages. But it can be done and if it is done correctly it is a very effective method. (Eisenhardt, K. M. 1991) While writing a case study the focus must lie in the method and fitting all the important content into the format of a case study.

Analysis

There are some suggestions to how long a case study should be and that is between 5-15 pages (Söilen, K. S. and Huber, S 2006) and that seems to be the most effective way to mediate the content you need. A single case study can be easier to fit in the page constraints. Case studies who studies multiple cases in the same rapport can be more difficult to fit within the page format, but it can also be an effective method to bring the information to light. (Eisenhardt, K. M. 1991)

The format of a case study is not predetermined and you are somewhat free to write in what way you please. As long as it is valid and reliable research, and you are able to fit the in-depth description into the format of a case study. (Flyvbjerg, B. 2003) According to Stake, R (1978) you can use case studies as a way to base generalizations on, even if there are those who object to the use of case studies as a basis for generalizations. To be able to call your method a case study it have to contain certain aspects: an introduction, a review of the used literature, a description of the method, a discussion and a section with drawn conclusions. Otherwise you have no specific boundaries in case of the design and format of the study (Yin, R. K. 1981). MacDermid, J. C. (2016) agrees and adds that the format and design can look very different depending on watch field of work the case study is written about. It is useful to its readers when it gives them new information or knowledge.

The method of using case studies as a teaching instrument is known to work well, but only in some type of field areas. In the fields of law and medicine the method is of then used and the students work amount often consist of many different types of case studies. They use both illustrative, exploratory and cumulative and so on types of case studies in their learning process. (Tellis, W. 1997) According to Yang, Z., Wang, X., and Su, C. (2006). the research method plays a crucial role in the outcome of the studies validity,
reliability and how well it can be generalized. And that the type of data collection you choose to use is vital for the outcome of the studies value. This is something that also Eisenhardt, K and Graebner, M. (2007) agrees with and they emphasise the fact that you meet more challenges with this type of research method, but that this challenges can be met by using more distinct data and information and use a more precise language and presenting.

Baxter, P., and Jack, S. (2008) means that the specification of the area to study while writing a case study needs to be done with consideration. If the problem area is too broad there is a risk that the thickness of the study may be overwhelming to its readers. But Remenyi, D., Money, A., Price, D., and Bannister, F. (2002) suggests that a positive fact that you can show the readers the whole research process. Also, Jaspers, F. (2007) argues that the foremost purpose of a case study is theory building, and that it can be very well used to test deterministic hypotheses.

Siggelkow, N. (2007) argues that there are some obstacles to overcome just to make the case study give the reader value. Some of the obstacles are hard to overcome if the work should be presented in a specific amount of pages. This is something that Eisenhardt, K M. (1991) agrees with and he suggests that if you feel like you cannot fit the right amount of information into the suggested format, many you should choose another format to write in.

The ability to process and analyse while reading is an individual matter and there is research that shows that the brain processes information while reading differently (Karl Steffens. 2015. Pages 41–59). This means that the brains ability to process specific amount of text differs between individuals. This also means that an ideal length to a study should differ depending on the purpose of the study. It is suggested by Golich, V L. (2000) that students prefer shorter case studies when they are to be used as teaching methods. However, if the learning ability is diverse it is hard to draw conclusions that all students prefer shorter case studies.

Conclusions and implications

When you are writing and reading a case study it is important to keep in mind not only why and what you want to convey to your readers, but also who it is you are writing it for to read. You have to be aware of the different pros and cons with using the format, and you also have to be aware of who you want to connect your information to. The ability to process and analyse information differs between individuals and if you

From a more student focused point of view the results of what is the ideal length of a case study differs from the ideal length of a case study when you do a research based case study. It is more difficult for a student to stay motivated during the reading and analysing of a thicker case study. And the thickness of the case study can prohibit the learning process. Students often prefers shorter case studies, but this can be explained by how much (or little) work the students would like to put down on analysing the case.
It is also suggested that the way of presenting research in the form of a case study can be prevented if the study is too thick. If the information can’t be presented in less than 20 pages writing, maybe another format should be considered.

Qualitative data research is more common now, but it has its disadvantages. And it seems to be difficult to fit all the factors into the format of a hopefully 5-15 paged study. Some important data analysis may be lost in the process of writing a shorter but deeper study (case study). The conclusion is to be more precise in the work and research process and in the writing process and to be aware of the formats perks and its disadvantages.

**Future studies**

It should be interesting to examine if there are distinctive differences between the different field areas that case studies are used as a research method. If there are different kind of demands on the length and what the study should contain

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