

▶ Writing a literature study





What's a literature study?

An evaluative report of information found in the literature related to your selected area of study.



What's its purpose?

The study should:

- provide a context for research
- Justify research
- show where coming research fits into the existing body of knowledge
- enable the researcher to learn from previous theory on the subject
- highlight flaws in previous research
- outline gaps in previous research
- show that the work is adding to the understanding and knowledge of the field
- help refine, refocus or even change the topic



Setting the context

Take the following into consideration:

- What's the scope of the topic?
- What's the purpose of the research?
- Who is the intended reader?
- What's your delimitations?
- What are the relevant, related disciplines?



Sources of information

- Scientific journals
- Research papers
- Books
- Conference proceedings
- Theses/dissertations
- Government documents
- Legislation
- Standards
- Statistics



Source evaluation

Typical criteria for scientific sources are:

1989 report on Cold fusion (Pons and Fleischman) based on poor experiment design and claimed, falsely, the detection of nuclear reaction byproducts http://undsci.berkeley.edu/article/cold_fusion_01

UK medical journals will no longer consider research funded by tobacco industry. (The Independent, 2013-11-14)

- Age
 - Is the literature based on recent research?
- Contemporary
 - Is the research based on direct or indirect data?
- Commonality
 - Are several publications presenting the same facts



Positioning your study

Aim to:

- Understand and clarify the relationships between your research and the discipline
- Place and justify your research within the disciplines
- Understand the existing literature and how it relates/supports/contradicts your topic



Examples of literature studies

- **Scientific papers State-Of-The-Art**
- **Parts of:**
 - Scientific papers
 - Bachelor-/Master theses
 - Dissertations



Your task

- Perform a scientific literature study:
 - Work individually
 - gather data
 - analyze
 - draw conclusions
- Present your results in a report
 - Length: 25.000 – 30.000 characters (including blanks), list of references not included
 - A minimum of 15 scientifically sound references, of which, at least 13 scientific research papers
 - Use the provided template for structure and formatting



Topics

- Just-In-Time production
- Flexibility in production
- Green supply chains
- Strategic sourcing
- Batch size optimization
- Spare parts logistics
- Strategic issues in logistics
- Strategic issues in production
- Supplier evaluation methods
- Other related topics (after approval from Antti)



Evaluation of the report

- Language: 1 – 5
 - Spelling
 - Grammar
- Structure: 1 – 5
 - Follow the template
- Reference handling: 1 – 5
 - Use Harvard system
 - No theories without reference
- Relevance of references: 1 – 5
 - Scientific
 - Up to date
 - Within the field
 - Sufficient amount
- Quality of analysis 1 – 5
 - Draw conclusions from the study
 - Clear links between analysis, scope, and literature

A minimum score of 2 in any of the categories is required to pass the assignment.



Where to find literature

- Web of Science
- IEEE Xplore
- Emerald Insight
- Google Scholar
- Other data bases

Search for good references in other publications!



Journals related to the areas of production and logistics

- International Journal of Operations and Production Management
- International Journal of Production research
- The International Journal of Logistics Management
- International Journal of Physical Distribution & Logistics Management
- European Journal of Operational Research
- International Journal of Logistics: Research and Applications
- Logistics Information Management
- International Journal of Production Economics
- The journal of supply chain management
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Structure of the paper

- The paper should be formatted according to the paper template (on the course Zoomin page)
- The following sections should be included:
 - Abstract
 - Introduction
 - Research methodology
 - Literature review
 - Analysis and discussion
 - References



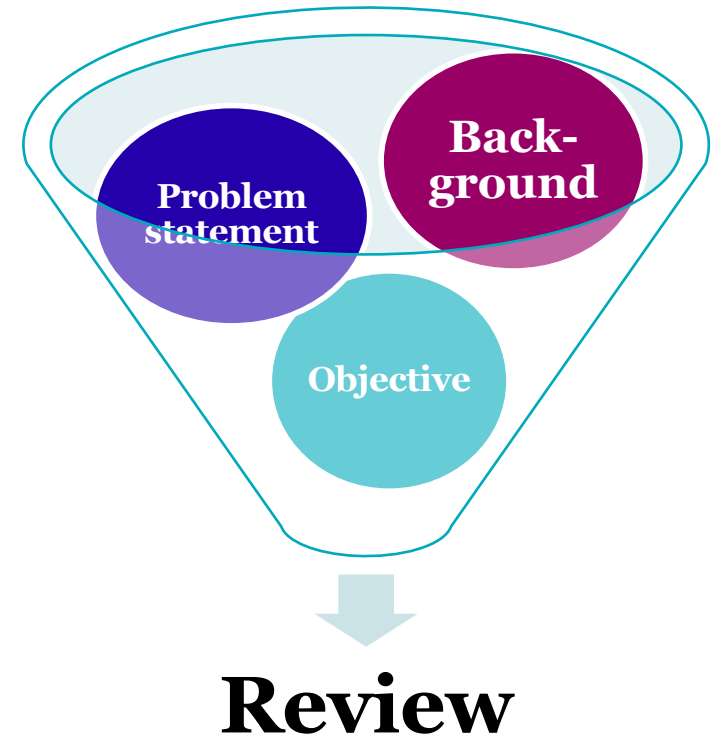
Abstract

- An ABSTRACT should fulfill the following:
 - Why? Context and purpose of research
 - How? Method applied
 - What? Results/Findings
 - Conclusions/Contribution/Implications



Introduction

- Describe background and problem statement—why is this a relevant topic? Use references!
- The purpose/objective of the study presented in the paper –what was the goal with the study?





Introduction

- To be interested in your result, the reader has to understand the scope and why it is important.
- Try to express the importance of your subject.



Research methodology

- Describe what you have done!
- Methods used (a literature review)
- Description of the data collection and analysis.
 - which databases were used
 - which key words
 - Delimitations (What have you excluded?)



The review

- Start with necessary definitions of main areas
- Sub-divide into sub-areas or themes of the main areas
- Include both supporting and opposing theories
- Refer to the literature in your own words, don't copy-paste!
- Of course you may quote the literature, as long as you indicate that it is a quotation.
- Avoid second hand references. Try to find the original source.



Analysis and discussion

- Analysis of the data collected
 - Similarities and differences between publications
 - What have you learned?
 - Patterns? Contradictions? Gaps?
 - Theme-based





Referencing Harvard style

Within the text: Author's last name followed by a comma and the year of publication, all in round brackets:

Flexibility of a manufacturing system can be defined and determined by its sensitivity to change (Chryssolouris, 1996)

Slack (1987) found out through his study that four different types of flexibility was considered important

Another such classification is possible to do into eight different types (Browne et.al., 1984): Machine flexibility – the ease of making changes in the machines required to produce a given set of parts....

The classification and distinction of flexibility and reconfigurability used in this work is adopted from Hedelind and Jackson (2007) and Jackson (2000).



Referencing Harvard style

Womack et al. (1990) identified in their MIT study that many automotive companies had a lot of automation, but the Japanese companies that had the highest productivity also had the lowest level of automation. However, they also believed that the automotive industries will automate almost every operation in the factories in the future (Womack et. al., 1990 p. 102):

“by the end of the century we expect that team-assembly plants will be populated almost entirely by highly skilled problem-solvers whose task will be to think continually of ways and means to make the system run more smoothly and productively.”



Referencing Harvard style

Where, and how many references should be used in the text?

- As many as needed to show that all parts of the text is taken from a certain publication.
- Check other scientific articles, how they use references.
- Don't forget that illustrations taken from other publications also should have references.



Reference list

A full reference list, in alphabetical order should be included, and formatted as below:

- For books: Surname, Initials (Year of Publication), Title, Publisher, Place of Publication.
Casson, M. (1979), *Alternatives to the Multinational Enterprise*, Macmillan, London.
- For chapters in edited books: Surname, Initials (Year), "Title", in Editor's Name, Initials (Ed.), Title, Publisher, Place, Pages.
Bessley, M. and Wilson, P. (1984), "Public policy and small firms in Britain," in Levicki, C. (Ed.), *Small Business Theory and Policy*, Croom Helm, London, pp. 111-126.
- For articles: Surname, Initials (Year), "Title", Journal Name, Volume, Number, Pages.
Fox, S. (1994), "Empowerment as a catalyst for change: and example from the food industry", *Supply Chain Management*, Vol. 2, No. 3, pp. 29-33.
- When more than one author: Surname₁, Initials₁, Surname₂, Initials₂, and Surname₃, Initials₃, (Year), "Title", Journal Name, Volume, Number, Pages.
Fox, S., Johnson, P., and Bell, G. (1994), "Empowerment as a catalyst for change: and example from the food industry", *Supply Chain Management*, Vol. 2, No. 3, pp. 29-33.



Some advice

- Benchmark! See how other authors structure and write their literature studies
- Use the spelling and grammar tools in your computer!
- Write your text directly in the template document, or use the format paint tool to transfer the formatting from the template to your paper.
- Ask a colleague or friend to read your text



Notify me on your plans!

Deadline: 2018-11-15

Information: Name, Topic

E-mail to: antti.salonen@mdh.se



Final paper submission

Deadline: 2019-01-11

Submission through e-mail to:

antti.salonen.malard@analys.urkund.se



Are there any questions?

Next lecture:
Friday 2018-11-16

Forecasting techniques, Linear regression,
Time series, Exponential smoothing

Book chapter: “Forecasting demand”