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RESEARCH COLLOQUIUM II

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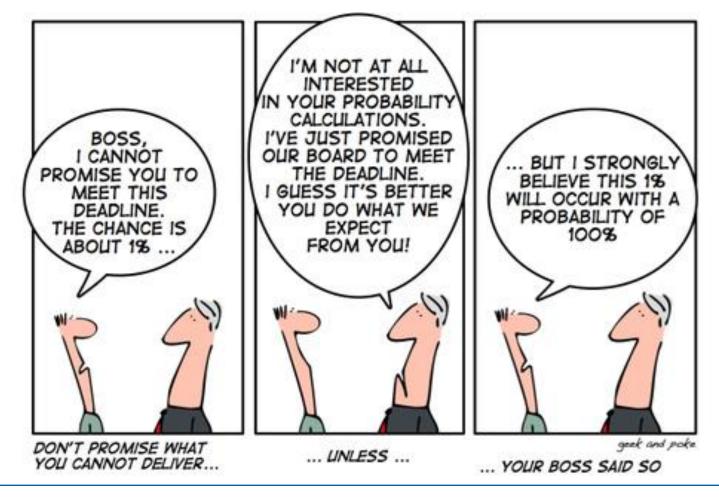


- 1. Project Planning
- 2. Research Question
- 3. Structure / Table of Contents
- 4. Scientific Writing
- 5. Literature Review

Project Planning



Project planning is part of project management, which relates to the use of schedules such as Gantt charts to plan and subsequently report progress within the project environment



Project Plan



- A project plan is the equivalent of a road map
- Tool for identifying challenges early (ier) not a "to do" list
- The plan should take the project from the start through to completion: i.e., the plan is the vehicle used to deliver the project's objective

'Plan the Work, then Work the Plan'

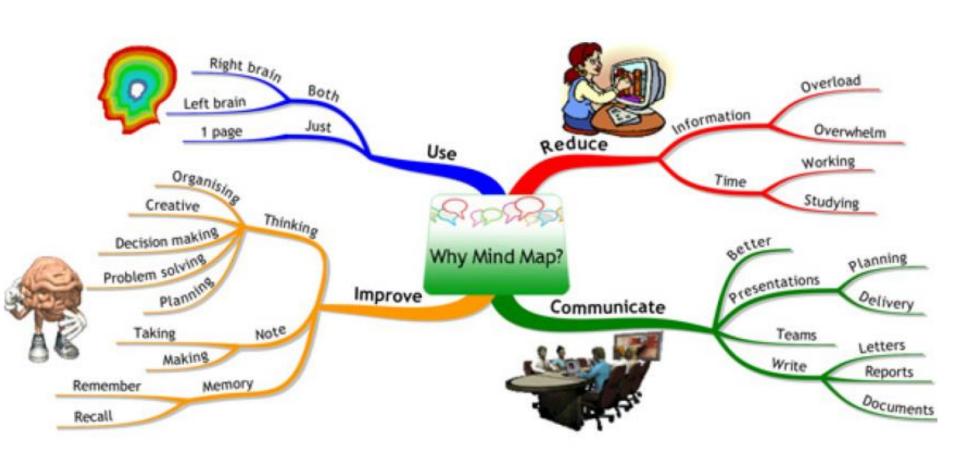
Project Plan



ID	0	Duration	Start	Finish	H2 '03			H1 '04		H2 '04		H1 '05		H2 '05		H1 '06		H2 '06		H1 '07	
	Task Name				Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4	Qtr 1 Qtr	
2	Basic definitions	90 days	Mon 04.08.03	Fri 05.12.03			Ţ,	JP													
3	Hull and deck description	40 days	Mon 08.12.03	Fri 30.01.04				-	DK												
4	Rig description	40 days	Mon 08.12.03	Fri 30.01.04			Ĭ.	JP,	,RG												
5	Architect quotes	30 days	Mon 02.02.04	Fri 12.03.04					DK												
6	Financial /Budget	20 days	Mon 15.03.04	Fri 09.04.04					JP												
7	Builder's pre-selection	40 days	Mon 02.02.04	Fri 26.03.04					P+												
8	Buy plans	20 days	Mon 29.03.04	Fri 23.04.04				4	29.0	3											
9	Builder's selection	10 days	Mon 26.04.04	Fri 07.05.04					JP												
10	Builder quotes	30 days	Mon 10.05.04	Fri 18.06.04						В											
11	Quote rig	30 days	Mon 26.04.04	Fri 04.06.04						RG											
12	Define/Get cash flow	15 days	Mon 21.06.04	Fri 09.07.04						JP											
13	Go-No go decision	10 days	Mon 12.07.04	Fri 23.07.04						↓ 12.	07			<u> </u>			T				
14	Waiting period	180 days	Mon 26.07.04	Fri 01.04.05									ъВ								
15	Order materials	60 days	Mon 04.04.05	Fri 24.06.05										В							
16	Build hull	265 days	Mon 27.06.05	Fri 30.06.06														_¬ В			
17	Quote sails	60 days	Mon 09.01.06	Fri 31.03.06													P,S				
18	Order/get sails	120 days	Mon 03.04.06	Fri 15.09.06															S		
19	Build rig (incl. roller)	100 days	Mon 01.05.06	Fri 15.09.06															RG		
20	Technical Test rig/sails	15 days	Mon 18.09.06	Fri 06.10.06															RG		
21	Send Rig/Sails to Yard	20 days	Mon 09.10.06	Fri 03.11.06													L		RG	+	
22	Buy equipment	60 days	Mon 10.04.06	Fri 30.06.06														JP	1000		
23	Finish hull Equip	60 days	Mon 03.07.06	Fri 22.09.06															B+		
24	Launch	1 day	Mon 25.09.06	Mon 25.09.06														•	25.0)	
25	Complete equipment	19 days	Tue 26.09.06	Fri 20.10.06															IP P		
26	Sea trials	10 days	Mon 23.10.06	Fri 03.11.06															JP	+	
27	Rig masts/sails	5 days	Mon 06.11.06	Fri 10.11.06															hRe	3	
28	Sea trials	10 days	Mon 13.11.06	Fri 24.11.06															F	G,JP	
29	Buffer	60 days	Mon 27.11.06	Fri 16.02.07																	

Research question





http://www.mind-mapping.co.uk/_images/_Pdf/EXAMPLES/Mind-Mapping-Overview/whymindmap.pdf

Research Question



What is a research question? What is a hypotheses?

Ctample

Subject:

Innovation and Venture Capital

Research question:

What is the role of a startup's innovative capacity for receiving venture capital?

Hypotheses:

If a startup has a high innovative capacity then it has a higher probability to receive venture capital

Definition of hypotheses



- **Scientific hypotheses** are assumptions about attributes of the reality, which are typically phrased as conditional statements (if A, then B)
- They go beyond individual cases and are falsifiable through empirical cases.
- Criteria for (scientific) hypotheses:
 - ➤ **General validity** , i.e. go beyond individual cases
 - \triangleright Conditional statements must be possible (if X then Y)
 - ➤ **Falsifiable**, i.e. events, which contradict the conditional statement, must be conceivable



Scientific writing:

"Simplicity, succinct, clarity"



Almost all scientific documents follow a standard format today: IMRAD

(Abstract First)

I Introduction: What did you do/Why did you do it?

M Materials and methods: How did you do it?

R Results: What did you find?

A and

D Discussion What does it all mean?

Title



- This is important as it is the first thing which makes an impact on a prospective reader.
- A good title accurately describes/reflects contents of the manuscript/thesis in the fewest possible words

Avoid:

- Further studies on....
- Characterisation of....
- Observations on.....
- Further investigations into.....
- Avoid titles which have a question mark

Introduction



Write and compile it at the very end of your thesis

Start with an actual topic or research problem

Provide:

- The most important definitions e.g. of family firms, CSR, crowdfunding, etc.
- The overall objectives, research question, hypotheses and main results of your research study or project
- Short overview of chapters (1-2 sentences)

Include a Flow Diagram to show the different phases of a project

You must be able to LEAD A BLIND MAN through your thesis

If your supervisor does not understand your writing you have a problem!!

Keep text simple with short sentences

Composition of a chapter



- 1. Heading (Just 3 Levels):
 - Short
 - Self explaining
 - Should not be necessary for the reader
- 2. Chapter Introduction
 - Overview
 - Objectives
 - Possibly: Connection to a chapter, finding above
- 3. Text Body
- 4. Summary
 - Key findings
 - Refer to the objectives of the chapter
 - Possibly: Connection to a chapter, finding above
 - Transistion to the next chapter (argue why the next one must be there)

Materials & Methods



- 1. always write in the past tense
- 2. <u>Materials</u>: Describe the research subject you focus on
- 3. <u>Methods</u>: Describe the method(s) used and its appropriateness in the present context
- 4. For new methods: provide ALL information required

Results



- 1. Present your results
- 2. Avoid judgements (belongs in the discussion section)
- 3. Use a clear structure
- 4. Graphs might help to visualize your findings
- 5. Avoid copy-paste of reports or graphs

DISCUSSION



How do you write your Discussion section??

- In the CONTEXT of other peoples work
- Thus it is important to SUMMARISE your most interesting results first and then COMPARE and CONTRAST with other peoples work in each section/sub-section.
- Present the weaknesses/limitations of your methods and/or results
- Provide solutions to overcome these limitations
- Provide implications for theory and practice
- Provide suggestions for future research



How to write a literature review

Why do a literature review?



In sum:

- to understand the state of knowledge on your topic
- to find out what methodologies, theories and models others have applied to your topic
- to (re)define the focus of your research
- to make sure you contribute to your area of research with something new

Stages for conducting a literature review



- 1. Problem formulation
- 2. Literature search
- 3. Organization/classification
- 4. Evaluation
- 5. Analysis and interpretation

Stage 1 Problem formulation



Specify what topic/field is being examined and its main components (e.g. themes)

- This serves as a guiding concept/principle for the review
- Literature review as the ground work for your empirical analysis:
 - The review is instrumental to develop arguments regarding expected relations between main concepts. It is organized around and related directly to the hypotheses you are developing
 - Thus, it is not a laundry list (overview or set of summaries of all the material available) of everything that is available

Stage 2 Literature search



Find material relevant to the subject being explored (long list) and determine which literature makes a significant contribution to understanding the topic (short list)

- Search for (combinations of) key words based on guiding concept principle: topics/themes (focus on research questions, sub questions and key concepts)
- General rule: Try to focus on published articles and not working papers
- The review must be wide enough to include all relevant material and narrow enough to exclude irrelevant studies:
 - Too much too handle? Narrow down your research question/focus
 - Very little there? You are on to something new or you specify your area of research too narrow

Literature search: Snowballing



- Building on the works of others
- A scholarly article will always have References/Bibliography
- What papers refer to this paper? → Google Scholar

Linking entrepreneurship and economic growth

S Wennekers, R Thurik - Small business economics, 1999 - Springer

ABSTRACT. In the 1980s stagflation and high unemploy- ment caused a renewed interest in supply side **economics** and in factors determining **economic growth**. Simultaneously, the 1980s and 1990s have seen a reevaluation of the role of small firms and a renewed attention for ...

Cited by 1168 Related articles All 14 versions Web of Science: 227 Cite More ▼

The impact of entrepreneurship on economic growth

MA Carree, AR Thurik - Handbook of entrepreneurship research, 2005 - Springer

... Concerning the role of entrepreneurship in stimulating economic growth, many links have been ... Hence, linking entrepreneurship to economic growth means linking the indivi- dual level to ... We label this role as Kirznerian (or neo-Austrian) entrepreneurship (see for instance ...

Cited by 474 Related articles All 12 versions Cite More ▼

Stage 2 Literature search



Streams of literature:

- Usually the review makes a contribution to different streams of literature
- Think about to what *streams of literature* your research aims to make a contribution
- Start with specific relationships you are investigating

Stage 3 Organization/classification



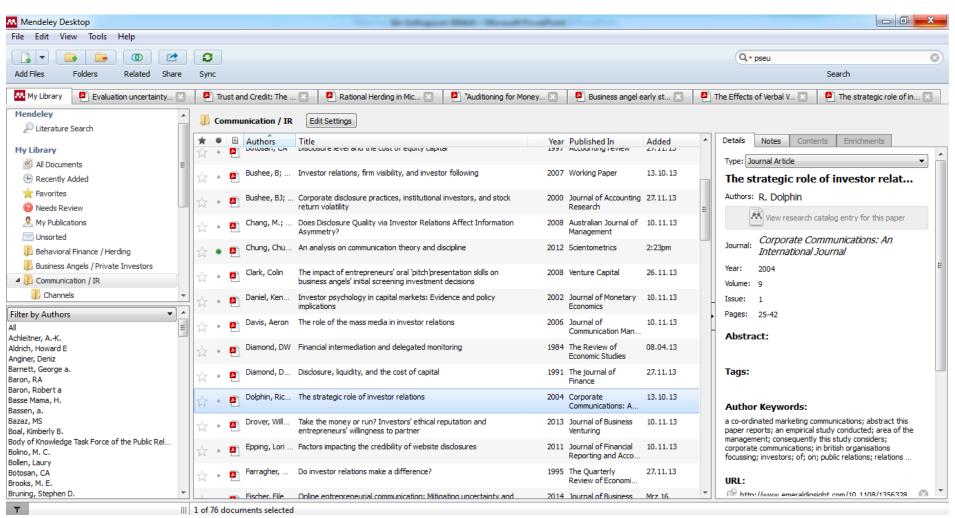
Group literature based on commonalities

- Organize your literature
- Find commonalities (e.g. (sub)themes, definitions, questions asked, theoretical basis, method, arguments pro, arguments con, conclusions) to group articles
- Develop a tool or system that helps you to systematically compare articles e.g. take an excel file and use a line for each article and columns for different categories

Organize your literature



Example: Menderley



Tool to classify literature



Example of excel file for organizing literature

Internal coding number		theoretical perspective used		finding	finding 2	or quantitative approach	propositi ons develope	analysis (e.g. individua I, firm, country)	approach (Descripti ve	(e.g. sales growth, export)	Sample Size
1	,										
3	3										
4											
5											
6	3										
7	'										

Stage 4 Evaluation



Assess strengths and weaknesses of the literature

Some guiding questions to evaluate the articles:

- Is the problem clearly spelled out?
- How convincing is the argument made?
- What perspective or theoretical basis is used?
- How large a sample was used?
- How were the results analyzed (method)?
- Is the methodology well justified as most appropriate to study the problem?
- Are the generalizations justified by the evidence on which they are made?
- What is the significance or main contribution of this research?
- Was the research influential in that others picked up the threads and pursued them?

Stage 5 Analysis and interpretation



Discuss findings and draw conclusions from relevant literature

Use prior literature to:

- demonstrate you know the field
- justify the reason of your research
- If applicable: derive hypotheses

Demonstrate you know the field



- It shows you have a good account on what has been published on the topic (e.g. what the prevailing theories and hypotheses are, what questions are being asked)
- It demonstrates your ability to evaluate other people's work (synthesize and pass judgment on the relative merits of research reviewed): more than simply reporting what others have done (no laundry lists!)

"Green (1975) discovered In 1978, Black conducted experiments and discovered that Later Brown (1980) illustrated this in"

"There seems to be general agreement on x, (for example, White 1987, Brown 1980, Black 1978, Green 1975) but Green (1975) sees x as a consequence of y, while Black(1978) puts x and y as While Green's work has some limitations in that it, its main value lies in"

Justify the reason for your research



Present your work in relation to what has been done by others:

- convince the reader of the relevance of your work in relation to prior studies e.g. show that you identified a gap which your research will fill (detect and describe the gap)
- place your own research within the field; demonstrate how the prevailing ideas fit into your research and how your thesis agrees with/differs from those

Derive hypotheses



- Show what knowledge and ideas have been established on a topic, what their strengths and weaknesses are and how you use these to develop your arguments
- Discuss different types of arguments put forward in the literature: those in support of a particular position, those against and/or those offering alternative theses. Cite and discuss studies contrary to your perspective
- Assess the quality or persuasiveness of the **arguments** broad forward: which are most/least convincing?
- Present and evaluate the **empirical evidence** so far: To what extent are the arguments supported by the evidence (e.g. case studies, statistical analysis)? Is this convincing?
- Based on the discussion of different arguments and the empirical evidence you summarize and determine your own position which results in the hypotheses

Structure of literature review



How to structure your review?

- One coherent piece in which individual sentences and paragraphs are clearly connected and do not stand alone
- Logically structured
- Main components: introduction, body, conclusion



Structure of your literature review

Introduction



- Present topic under discussion and parameters of the topic (what it in- and excludes)
- Define or identify the key concepts that you want to address
- Point out overall trends in what has been published about the topic > conflicts, methodology, evidence, conclusions
- Establish the writer's reason (point of view) for reviewing the literature > what are you going to do and why

Body



- Organize into sections that present themes; use well formed paragraphs and a logical structure within the body
- Each paragraph deals with a different aspect or theme and classifies and evaluates prior studies
- Summarize studies according to common denominators (e.g. objectives, themes, questions being asked, general conclusions drawn) or discuss individual articles if appropriate
- Derive hypotheses if appropriate

Body: Organizing Your Literature Review



<u>Topical Order</u>—organize by main topics or issues; emphasize the relationship of the issues to the main "problem"

<u>Chronological Order</u>—organize the literature by the dates the research was published

<u>Problem-Cause-Solution Order</u>—Organize the review so that it moves from the problem to the solution

<u>General-to-Specific Order</u>—(Also called the funnel approach) Examine broad-based research first and then focus on specific studies that relate to the topic

<u>Specific-to-General Order</u>—Try to discuss specific research studies so conclusions can be drawn

Conclusion



- Summarize major contributions of significant studies to the body of knowledge under review
- Evaluate the current state of knowledge reviewed (e.g. flaws, gaps, inconsistencies)
- Summarize where your thesis fits in the literature
- if applicable: Present future research questions

Common Errors Made in Literature Reviews



- Review isn't logically organized
- Review isn't focused on most important facets of the study
- Too few references or outdated references cited
- Review isn't written in author's own words
- Review reads like a series of disjointed summaries
- Usage of variable names instead of concepts e.g. "product innovation" and not "newness of product" → check literature for commonly used concepts
- Be aware of distinction between "it has been argued that..." (conceptual/theoretical) and "It has been found/shown that..." (empirical, based on qualitative or quantitative analysis)
- Do not only use studies in favor of your arguments; check for alternative views
- Recent references are omitted

A "good" and "bad" lit review



A 'good' literature review.....

- is a synthesis of available research
- is a critical evaluation
- has appropriate breadth and depth
- has clarity and conciseness
- uses rigorous and consistent methods

A 'poor' literature review is.....

- an annotated bibliography
- confined to description
- narrow and shallow
- confusing and longwinded
- constructed in an arbitrary way

Literature review: some final advices..



- As you read, try to see the "big picture"—your literature review should provide an overview of the state of research.
- Include only those sources that help you shape your argument. Resist the temptation to include everything you've read!
- Balance summary and analysis as you write.
- Keep in mind your purpose for writing:
 - How will this review benefit readers?
 - How does this review contribute to your study?
 - [What are the main research gaps?]
- Be meticulous about citations.

Plagiarism Danger



Plagiarism includes:

- 1. Using another writer's words without proper citation
- 2. Using another writer's ideas without proper citation
- 3. Citing a source but reproducing the exact words without quotation marks
- 4. Borrowing all or part of another student's paper
- 5. Using paper-writing service or having a friend write the paper