

# Module 1

# Academic Writing

Erasmus+ Capacity Building in Higher Education

Assessing and Improving Research Performance at South East Asian Universities

29. 4 – 3.5. 2019, International College of National Institute of Development Administration, Thailand

*Choirunnisa Arifa (Nisa)*

*Universitas Gadjah Mada, Indonesia*

This project has been funded with support from the European Commission.  
This publication [communication] reflects the views only of the author, and  
the Commission cannot be held responsible for any use which may be  
made of the information contained therein



Co-funded by the  
Erasmus+ Programme  
of the European Union



# Contents

1. Introduction
2. Formulate the Research Idea
3. Effective Structure of a Research Article
4. Title and Abstract
5. Research Background
6. Conceptual Framework, Literature Review and Hypotheses
7. Research Methodology
8. Results and Discussions
9. Conclusions
10. Formal aspects (referencing, literature, language..)
11. Revisions and Publications

This sentence has five words. Here are five more words. Five-word sentences are fine. But several together become monotonous. Listen to what is happening. The writing is getting boring. The sound of it drones. It's like a stuck record. The ear demands some variety.

Now listen. I vary the sentence length, and I create music. Music. The writing sings. It has a pleasant rhythm, a lilt, a harmony. I use short sentences. And I use sentences of medium length. And sometimes when I am certain the reader is rested, I will engage him with a sentence of considerable length, a sentence that burns with energy and builds with all the impetus of a crescendo, the roll of the drums, the crash of the cymbals—sounds that say listen to this, it is important.

So write with a combination of short, medium, and long sentences. Create a sound that pleases the reader's ear. Don't just write words. Write music.

-Gary Provost



# Title, Abstract and Introduction

Day 1 – Training on Module 1: Academic Writing

# Introduction

## Why academic writing?

- Publications
- Scholarly conversations

## What are in the academic writing?

- The idea
- The evidence
- The contribution

# Introduction

## Why publications?

- Building up expertise
- Building up reputation - individual and institution
  - Universities vs. training institutions
  - Accreditation: national and international
- Education: exposing students with current issues
- Cooperation and exchange
- Self-actualization as scholars

# Formulate the Research Idea

Choose an interesting research topic...

## ✓ From previous researchers

- What the others have done?
- What are their findings?
- What they have overlooked?

## ✓ From our own interests

- What is my research agenda?
- What will be the value added?
- Is it worth for the readers to read?

# Formulate the Research Idea

Table 2. Finding a Research Topic

1.	What I am interested in is .....
2.	I did a couple of small studies that looked at.....
3.	I could do better than .....
4.	That paper on ... by ... is exactly the type of things that I'd like to do.
5.	I'd like to write about .... But that's already been done by ... , who ...

Source: Murray (2013)

# Structure of a Research Article

- Heading: Abstract and title
- Introduction: Research background, problems, purpose
- Theory section: Literature review and hypotheses
- Methods section
- Analysis section: Results and discussions
- Conclusions
- References

# IMRAD\* Format

Title	Specifying the core topic of the paper
Authors	Names and affiliations of authors
Keywords	Words other than those in the title that best describe the paper
Abstract	A stand-alone, short narrative of the paper
Introduction	Explaining why the paper was prepared. Explaining the problem, what is not known, the objective of the study.
Material and methods	Explaining how the study was done.
Results	Stating what the author(s) found.

IMRAD: Introduction, Materials and Methods, Results and Discussion

# IMRAD\* Format

Discussion	Explaining the meaning of the results and next steps to be undertaken. Interpreting the results and specifying future direction of research.
Conclusion	Stating possible implications of the research.
Acknowledgement	Acknowledging who helped and how and what the funding source of the research was.
References	Details of the papers cited are provided.
Appendices	Supplementary materials of research can be appended.

IMRAD: Introduction, Materials and Methods, Results and Discussion

# The Heading: Title

- ✓ Title is probably the MOST important part of an article
- ✓ How should a title look like?
  - Attract readers
  - Inform (in brief) the idea of a research article
  - Help future researchers to find necessary information
    - Somehow may also help future researchers in finding their research topic

# The Heading: Title

✓ A good title should:

- Contains as few words as possible
- Be easy to understand
- Describe the contents of the paper
- Avoid abbreviations, formulas and jargon
- Not include any verb
- Not contain low-impact words such as “Some notes on ...,” “Observations on ...,” “Investigations on ...,” “Study of ...,” and “Effect of ...”;

# The Heading: Title

- ✓ A good title should:
  - Not be flashy as in newspapers (e.g. avoid such statements as “Agroforestry can stop deforestation”)
  - Report the subject of the research rather than its results
  - Follow the style preference of the targeted journal  
(Available e.g. at: [www.elsevier.com](http://www.elsevier.com) for Elsevier journals)
- ✓ Main title – couple of words;
- ✓ Subtitle – may be longer

*THE ACCOUNTING REVIEW*  
Vol. 90, No. 4  
2015  
pp. 1437–1467

American Accounting Association  
DOI: 10.2308/accr-50972

# Earnings Management and Derivative Hedging with Fair Valuation: Evidence from the Effects of FAS 133



Co-funded by the  
Erasmus+ Programme  
of the European Union

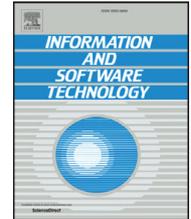




Contents lists available at [ScienceDirect](#)

## Information and Software Technology

journal homepage: [www.elsevier.com/locate/infsof](http://www.elsevier.com/locate/infsof)



### Software teams and their knowledge networks in large-scale software development



Darja Šmite<sup>a,\*</sup>, Nils Brede Moe<sup>a,b</sup>, Aivars Šāblis<sup>a</sup>, Claes Wohlin<sup>a</sup>

<sup>a</sup> *Blekinge Institute of Technology, Karlskrona, Sweden*

<sup>b</sup> *SINTEF ICT, Trondheim, Norway*

# The Heading: Abstract

- ✓ Abstract is a mini-version of the paper
- ✓ Abstract should be definitive rather than descriptive
- ✓ Abstract will usually be read by on average 100 times more people than the full paper
- ✓ Abstract should convey the information itself, not just promise conveying information in the paper
  - Avoid: “... are discussed,” “... will be presented”
- ✓ The length of abstracts, usually these range between 150–250 words
  - Some journals can be multiple paragraphs

# The Heading: Abstract

## ✓ What should be on an abstract?

- A statement of the rationale
- Objective of the paper
- The methods used
- Main results achieved
- Newly observed facts
- Principal conclusions and their significance

# The Heading: Abstract

## ✓ Abstract should NOT contain:

- Abbreviations or acronyms unless they are standard or explained
- References to tables or figures found in the paper
- Literature citations
- Any information or conclusions not presented in the full paper
- General statements
- Complex sentences

# Example of Abstract

Barton (2001) and Pincus and Rajgopal (2002) show that earnings management through discretionary accruals and derivative hedging are partial substitutes in smoothing earnings before 1999. In this study, we investigate whether Financial Accounting Standard (FAS) 133 regarding hedge accounting in 2000 has influenced the relative merit of the two earnings-smoothing methods. Based on a sample of S&P 500 nonfinancial firms during 1996–2006, we find that the substitution relation between derivative hedging and discretionary accrual is significantly attenuated after FAS 133 implementation. We also document a significant increase in earnings volatility associated with derivative hedging post-FAS 133. These results are robust to the use of various model and method specifications, as well as controlling for contemporaneous macroeconomic and regulatory shocks. Overall, our results suggest that a material change in an accounting rule regarding derivatives can influence the level and volatility of reported earnings, as well as the method of income smoothing.

*(Source: Choi et al. 2016)*

## A B S T R A C T

---

*Context:* Large software development projects involve multiple interconnected teams, often spread around the world, developing complex products for a growing number of customers and users. Succeeding with large-scale software development requires access to an enormous amount of knowledge and skills. Since neither individuals nor teams can possibly possess all the needed expertise, the resource availability in a team's knowledge network, also known as social capital, and effective knowledge coordination become paramount.

*Objective:* In this paper, we explore the role of social capital in terms of knowledge networks and networking behavior in large-scale software development projects.

*Method:* We conducted a multi-case study in two organizations, Ericsson and ABB, with software development teams as embedded units of analysis. We organized focus groups with ten software teams and surveyed 61 members from these teams to characterize and visualize the teams' knowledge networks. To complement the team perspective, we conducted individual interviews with representatives of supporting and coordination roles. Based on survey data, data obtained from focus groups, and individual interviews, we compared the different network characteristics and mechanisms that support knowledge networks. We used social network analysis to construct the team networks, thematic coding to identify network characteristics and context factors, and tabular summaries to identify the trends.

*Results:* Our findings indicate that social capital and networking are essential for both novice and mature teams when solving complex, unfamiliar, or interdependent tasks. Network size and networking behavior depend on company experience, employee turnover, team culture, need for networking, and organizational support. A number of mechanisms can support the development of knowledge networks and social capital, for example, introduction of formal technical experts, facilitation of communities of practice and adequate communication infrastructure.

*Conclusions:* Our study emphasizes the importance of social capital and knowledge networks. Therefore, we suggest that, along with investments into training programs, software companies should also cultivate a networking culture to strengthen their social capital, a known driver of better performance.

*(Source: Smite et al. 2017)*

# Introduction: Research Background

## ✓ Goals of the Introduction Section:

- Convince the readers that the research will be interesting and useful
  - What is interesting about the paper?
  - How does this paper contribute to current knowledge?
  - Will it give the readers some value-added information?

# Introduction: Research Background

## ✓ What are in the introduction?

- the nature and extent of the problems studied
- a brief review of the literature clearly relevant to the problem
- the objectives of the undertaken investigation

## ✓ What should NOT in the introduction?

- A repetition of abstract
- An extensive literature review
- Well-known facts or obvious facts

# Introduction: Research Background

## ✓ Common structure:

- The rationale of the research
- Brief review on previous studies relevant to the research
- Literature gap – motivation of the research
- Questions – sub-questions that need to be answered
- Objective of the research
- Brief explanation on planned research methods
- The structure of the remainder of the paper

**NOTE: Different journals follow different norms and styles!**

# Introduction: Research Background

## ✓ Some important points:

- The introduction should be brief
- Different tenses can be used:
  - Justification and motivation: present tense
  - Reference to the literature: past tense
  - Common knowledge: present perfect tense
  - The objective of the study: past or present tense
- Introduction leads logically to the hypothesis

**NOTE: Different journals follow different norms and styles!**

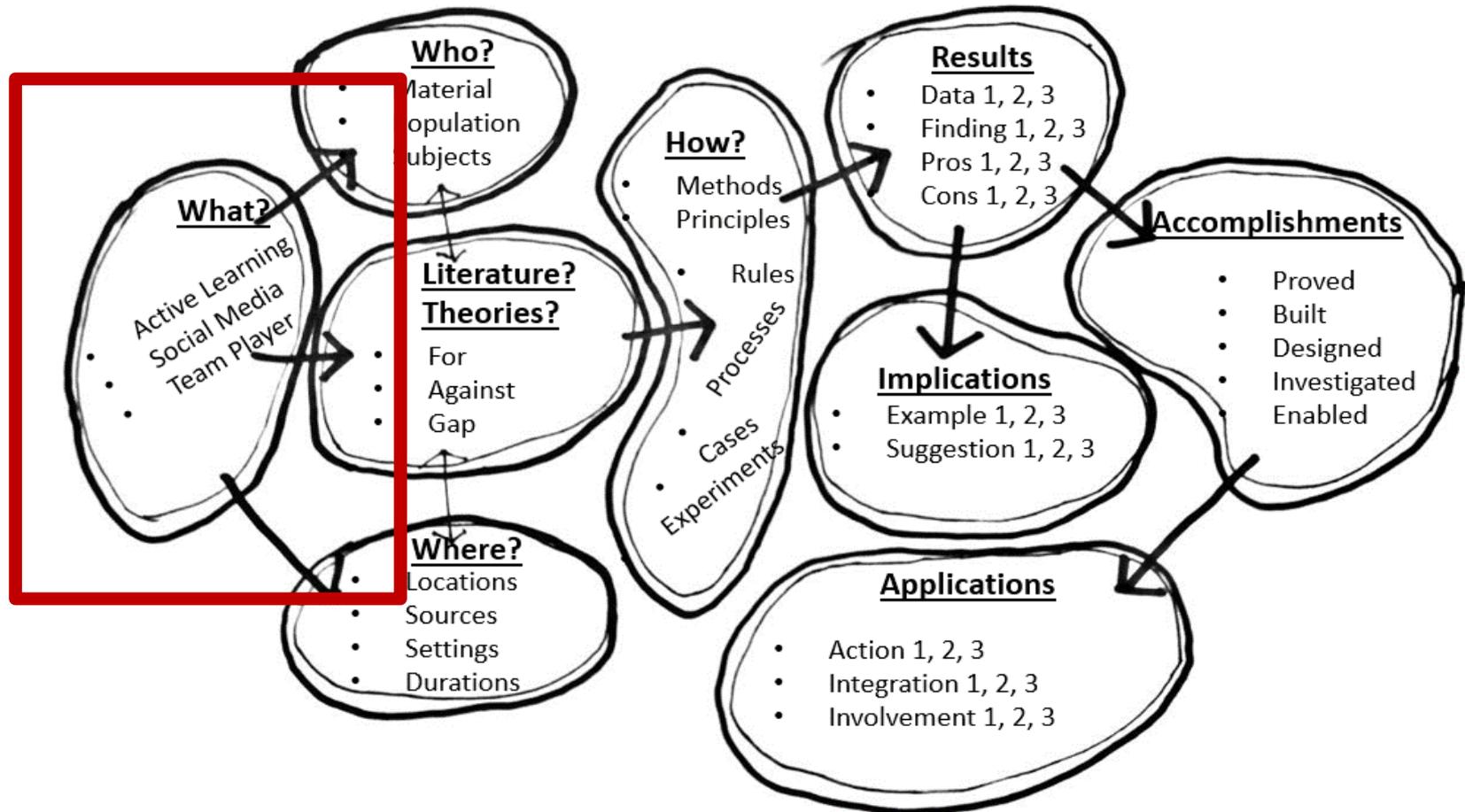
# Introduction: Research Background

## ✓ Some important points:

- Use your creativity to review the writing – make it as interesting as possible, not boring...
  - Use anecdote to introduce the research problem
  - Vary the length and the structure of sentences
  - Present the trend of topic briefly

**NOTE: Different journals follow different norms and styles!**

# Conceptual Framework



# Exercise:

**Evaluating and restructuring the title, abstract, and introduction of a paper**



# Evaluation of Introduction

- ✓ What are the problems to be answered?
- ✓ Why is it important?
- ✓ What the others have said about the problems?
- ✓ What is the literature gap?
- ✓ Is there a research question? Is it ended by a question mark?

If no, try to formulate one

- ✓ What is the goal of the research?
- ✓ How the paper will proceed?

# Literature Review and Hypotheses

Day 2 – Training on Module 1: Academic Writing

# Literature Review

✓ Literature review is to.....

- Identify
- Analyze
- Synthesize

major studies relevant to the topic in order to establish the basis for further research

✓ Need to find relevant studies from relevant library sources and databases

✓ NOT to: replicate what has already been done previously

# Literature Review

## ✓ Literature Review Section should highlight:

- Frontiers of the research topic
  - Jensen & Meckling (1976); Gompers, Ishii & Metrick (2003)
  - Barth, Beaver & Landsman (2001); Laux & Leuz (2010)
- Gaps that have been overlooked on previous studies
- The way the proposed research might contribute to the body of knowledge
- Directions on how to handle research problems: technique, data, approach?
- Conceptual insights into the problems – as basis to formulate hypotheses

# Literature Review

## ✓ Important aspect of Literature Review Section:

- What theoretical approaches (concepts) there exist in the literature relevant to the research;
- What relationships there are between the identified theoretical approaches;
- What terminology has been established in individual theoretical approaches;
- Who are “the key-players” (authors – pioneers) in the relevant theoretical approaches;

# Literature Review

## ✓ Important aspect of Literature Review Section:

- What research methods have been used;
- What research tools and techniques have been used;
- Which research questions remain open and provide room for further enquiry and what the best ideas for further research are;
- How the research has been conducted;
- How the authors have interpreted the research data.

# Literature Review

✓ How to do – review existing literature extensively:

- **Scholarly publications**

- Scholarly journals, scholarly books, monographs, formal research reports, and documents produced by reputable institutions (IMF, OECD, BCBS, etc.)

- **Electronic databases**

- Web of Science, Scopus, ProQuest, JSTOR, EBSCO, EconLit
- Google Scholar
- Free online publications

# Literature Review

- ✓ Some useful tactics, use this checklist – Have you:
  - Outlined the purpose and the scope
  - Identified appropriate and credible literature
  - Recorded the bibliographical details of the sources
  - Analyzed and critiqued your references: **any competing theory or hypotheses**
  - Identified gaps in the literature: **inconsistencies, uncertainties, lacking of knowledge and/or data**
  - Examined methodologies, theories, and models
  - Discussed different viewpoints

# Writing the LR Section

- ✓ Give a brief history of the theory
- ✓ Identify the broad problem area, but avoid global statements
- ✓ Give the main purpose(s) of the theory - why the topic being reviewed is important
- ✓ Distinguish between research findings and other sources of information
- ✓ Discuss what are the results of others, if existing
- ✓ Justify comments such as “no studies were found”
- ✓ Come up with some expectations/hypotheses.

**NOTE: Cite properly!**

# Writing the LR Section

## ✓ Important tips for improving the LR section:

- Begin with some comments on the topic of research to prepare readers with what to follow
- Organizing the literature survey according to themes
- Using subheadings as convenient
- Summarizing, analyzing, comparing and contrasting the literature included
- Specifying strengths, shortcomings and contributions of the prior research
- Highlighting contributions of the current research
- Checking coherence of the flow of the arguments

# Writing the LR Section

## ✓ Things should BE AVOIDED:

- LR consists only a list of quotations, no linking text between the citations, no context or comments with critical evaluation
- The same phenomenon is expressed by different words – may lead to different theoretical approaches
- Unclear and non-logical structure of the text
- Only few information sources being used
- Unsystematic and random selection of resources
- Unreliable resources being used

# Hypothesis Development

- ✓ Depends on the type of study, hypothesis might or might NOT be formulated
- ✓ The section can be written separately, or included on the literature review/theory section
- ✓ Hypothesis developed must be in-line or logically follow the research problems stated in the introduction
- ✓ Hypothesis must be developed based on the arguments or critiques on the literature that have been reviewed
- ✓ Is there any competing theories?

# Hypothesis Development

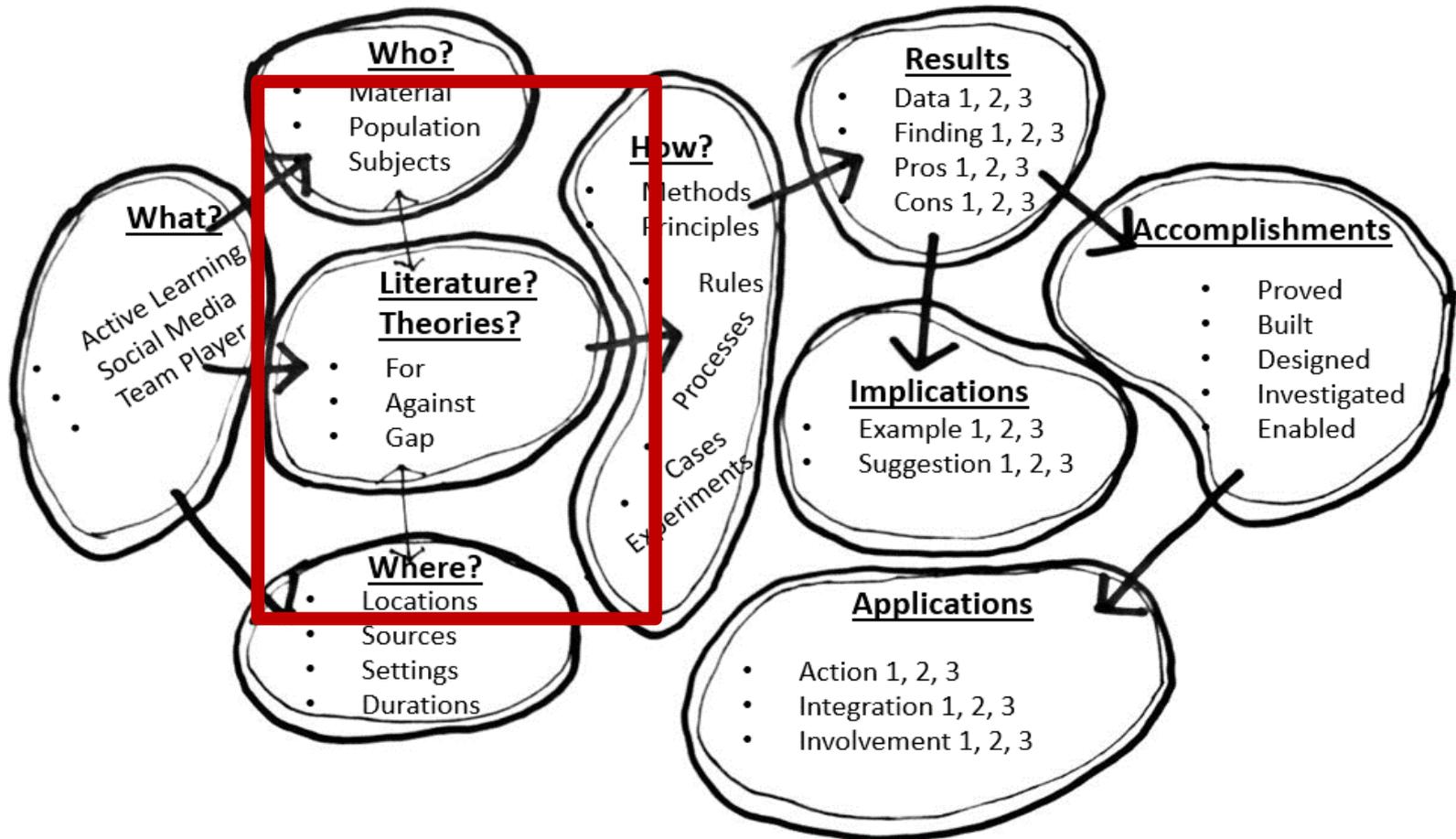
- ✓ Different methods/approaches leads to different "form" of hypothesis
  - **General hypothesis**

"The procedural justice affects the tendency to create budgetary slack."
  - **Hypothesis with direction**

"The higher the procedural justice, the lower the tendency to create budgetary slack."
  - **Testable hypothesis – experiment**

"The tendency to create budgetary slack is lower when managers are facing a higher procedural justice, due to the increased trust."

# Conceptual Framework



# Exercise:

## Evaluating the literature review and hypothesis development of a paper

# Research Methodology, Results and Discussion

Day 3 – Training on Module 1: Academic Writing

# Research Methodology

## ✓ The importance of research methodology section:

- Clarity about approaches employed by the researcher to address research question(s)
  - Qualitative? Quantitative? Mixed methods? – alignment between research problems and research design
- Description of the research methods –good methodology supports the expectation on the plausibility of results
  - data collection techniques? analysis/the research design?
  - assessment of reliability and validity of data?
- Assurance for the readers that the research has been sufficiently conducted

# Research Methodology

## ✓ Structure of research methodology section:

- Approach that the reader can expect:
  - Qualitative, quantitative, case study, comparative study, literature review, etc.
- Assumptions (if any)
- Sampling method to be employed
- Types of data to be collected
- Data collection technique
- Definition of variables (if any)
- Data analysis technique

**NOTE: Always remember to justify the methods employed!**

# Strategies and Data Collection Techniques

Strategies	Data Sources	Data Collection Techniques
1. Direct observation strategy	a. Case study	- Observation - Interview
	b. Field study	- Observation - Interview
	c. Laboratory study	- Experiment - Simulation
2. Opinion strategy	a. Individual	- Survey
	b. Group	- Delphi
3. Archival strategy	a. Primary	- Content analysis
	b. Secondary	- Database retrieval
4. Analytical strategy	Mathematical logic	-Mathematical logic derivation



# Research Methodology

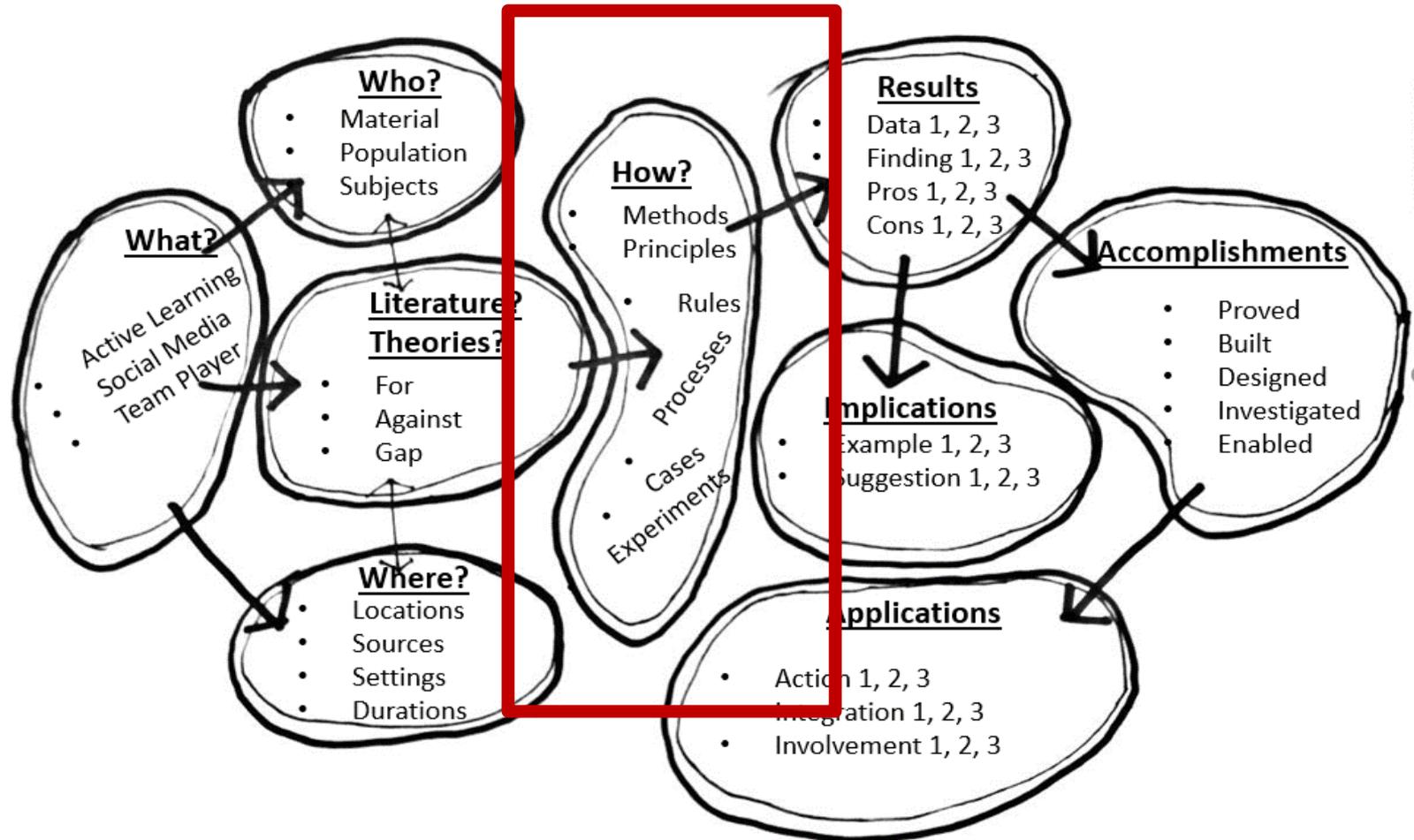
## ✓ Important aspects of the RM section:

- Provide the information chronologically
- Describe the methods as much precision and detail as necessary
  - e.g. experiment procedures, development of a survey instrument, the pilot test, etc.
- Do NOT include excessive description on common procedures
- Consider the general level of readers' understanding and familiarity with the procedures

# Issues in a RM Section

- Unnecessary definition of the concept that is explained in textbooks or understood by readers should be excluded.
- Irrelevant information that leads to information overload, or too complicated information should be avoided.
- Limitations of research methods should be presented in a separate section, normally, in the last section of the paper.
- Avoid plagiarism issues – mention the source of data, highlight what have been done by others and compare them precisely, if repeating the work.

# Conceptual Framework



# Exercise:

## Evaluating the research methodology of a paper

# Exercise for methods section: WHAT?

What is the planned “process“?

What are the sample? What is the technique conducted?

What kind of information is collected?

What are the questions asked in the survey?

What are the procedures of experiment conducted?

What is looked for in documents?

What is focused on in interviews?

# Exercise for methods section: HOW?

How does the research design fit the theory and research questions?

How are the consequences of problems encountered mitigated?

# Presenting the Results

- Is the core of the paper!
- Present at the same order as the objectives presented in the introduction
- Make it attractive and understandable: Use tables and figures to summarize findings
- Assign sequential numbers for tables and figures
- Be concise!

# Presenting the Results

- Some guidelines:
  - Present the results simply and clearly
  - Report only representative data, rather than repetitive data
  - Do not report large masses data; summarize and present them in tables or figures
  - Discuss in the text only the most important findings shown in tables and figures – refer to tables and figures appropriately
  - Avoid verbose expressions: e.g., instead of saying “It is clearly shown in Table 2 that the presence of tree canopy reduced light transmission to ground ...,” say “Light transmission to ground was reduced by the presence of tree canopy (Table 2).”

# Presenting the Discussions

- Provide a brief summary of the research question
- Show the outcomes of the research - follow the research design
- Relate the outcomes to the research question
- Show HOW the results and interpretations agree, or do not agree, with the current knowledge on the research
  - Are they consistent (or not) with the previous studies?
  - Put some insights as well on the discussions, rather than just agree or disagree
- Explain the theoretical background of the observed results

# Presenting the Discussions

- Indicate the significance of the results
- Suggest future research that is planned or needs the follow up
- Deal with only the results reported in the study
- Stay away from the generalizations that are not substantiated by the results presented
- Support each conclusion with adequate evidence
- Convince the reader that a novel, valid and reliable analysis has been conducted

# Exercise:

## Evaluating the results and discussion of a paper

# Exercise for results and discussion section:

- Discuss how to deliver results and discussions for different types of analysis
- Discuss pros and cons of methods
- Discuss the generalizability
- Discuss objectivity vs. subjectivity
- Discuss the constraints: small sample? availability of respondents? etc.
- Etc.

# Conclusion, References and Feedback

Day 4 – Training on Module 1: Academic Writing

# Conclusions

- Summarize (but do not repeat) main findings
- Indicate the significance/contribution of the research
- Identify the limitations of the current research
- Suggest future research that is planned or needs the follow up
  - But avoid sentences such as: “more research is needed before conclusions can be drawn.”
- If feasible, draw (policy) recommendations.

# References

- Each journal has its own rules: check the web
- Be complete in relation to what is referred to in the text of the paper
- Normally extra references, not visible in the text are prohibited
- Some journals prefer to see their previous articles in the literature list

# Language

- Only few journals accept text with imperfect English and edit it
- Native speaker with at least some knowledge about the topic is best choice

# Exercise:

## Evaluating the conclusion and references of a paper

# Drafting a Paper

- Important features of academic writing:
  - ✓ Identification of the field of the paper
  - ✓ Identification of the ‘issues’ that ‘remain in dispute’ and ‘still invite contention’
  - ✓ Statement of the author’s proposed contribution
    - ‘It nevertheless could be argued’
  - ✓ Branding of the type of contribution
    - ‘fresh approach’, ‘new approach’, ‘different’, ‘innovative’, etc.
  - ✓ Claim that the paper ‘can contribute to a resolution of the following issues...’
  - ✓ Purpose of the paper identified by key verbs
    - ‘investigate’, ‘establish’, ‘examine’, etc.

# Outlining: Shaping and Streamlining

- Objectives of developing the outline:
  - ✓ ‘idea generation’
  - ✓ forming a structure
  - ✓ linking ideas
  - ✓ clarifying a contribution
  - ✓ creating coherence
  - ✓ shifting and eliminating ideas
  - ✓ finding direction
  - ✓ contextualizing the work

# Outlining: Shaping and Streamlining

