

Introduction to Research: An Overview

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Research Methods *for* Business



**A Skill-Building
Approach**

SIXTH EDITION

Uma Sekaran and Roger Bougie

WILEY



PEARSON NEW INTERNATIONAL EDITION

Practical Research
Planning and Design
Paul D. Leedy Jeanne Ellis Ormrod
Tenth Edition

What is research?

- ❑ process of systematic inquiry
- ❑ inquisitive: seeking to answer the research question
- ❑ careful, methodical
- ❑ original
- ❑ academic research has a central concern for theory: testing existing theory (deductive research) or developing new theory (inductive research)

Applied vs Basic Research in Business

- **Basic research:** generates a body of knowledge by trying to comprehend how certain problems that occur in organizations can be solved.
- **Applied research:** solves a current problem faced by the manager in the work setting, demanding a timely solution.

Basic and applied research in Business

Sources: Easterby-Smith et al. (2008), Hedrick et al. (1993)

Basic research ←→ Applied research

Purpose:

- expand knowledge of processes of business and management
- results in universal principles relating to the process and its relationship to outcomes
- findings of significance and value to society in general

Context:

- undertaken by people based in universities
- choice of topic and objectives determined by the researcher
- flexible time scales

Purpose:

- improve understanding of particular business or management problem
- results in solution to problem
- new knowledge limited to problem
- findings of practical relevance and value to manager(s) in organisation(s)

Context:

- undertaken by people based in a variety of settings including organisations and universities
- objectives negotiated with originator
- tight time scales

Examples Applied Research

- Apple's iPod fueled the company's success in recent years, helping to increase sales from \$5 billion in 2001 to \$32 billion in the fiscal year 2008. Growth for the music player averaged more than 200% in 2006 and 2007, before falling to 6% in 2008. Some analysts believe that the number of iPods sold will drop 12% in 2009. "The reality is there's a limited group of people who want an iPod or any other portable media player," one analyst says. "So the question becomes, what will Apple do about it?"
- The existing machinery in the production department has had so many breakdowns that production has suffered. Machinery has to be replaced. Because of heavy investment costs, a careful recommendation as to whether it is more beneficial to buy the equipment or to lease it is needed.

Definition of Business Research

- **Business research:**
an organized and systematic inquiry or investigation into a specific problem, undertaken with the purpose of finding answers or solutions to it.

Examples of Research Areas in Business

- Absenteeism
- Communication
- Motivation
- Consumer decision making
- Customer satisfaction
- Budget allocations
- Accounting procedures

Why managers should know about research

- **Being knowledgeable about research and research methods helps professional managers to:**
 - ▣ Identify and effectively solve minor problems in the work setting.
 - ▣ Know how to tell good from bad research.
 - ▣ Appreciate the multiple influences and effects of factors impinging on a situation.
 - ▣ Take calculated risks in decision making.
 - ▣ Prevent possible vested interests from exercising their influence in a situation.
 - ▣ Relate to hired researchers and consultants more effectively.
 - ▣ Combine experience with scientific knowledge while making decisions.

The Manager–Researcher Relationship

- Each should know his/her role
- Trust levels
- Value system
- Acceptance of findings and implementation
- Issues of inside versus outside researchers/consultants

Internal Researchers

- **Advantages**
 - ▣ Better acceptance from staff
 - ▣ Knowledge about organization
 - ▣ Would be an integral part of implementation and evaluation of the research recommendations.
- **Disadvantages**
 - ▣ Less fresh ideas
 - ▣ Power politics could prevail
 - ▣ Possibly not valued as “expert” by staff

External Researchers

□ Advantages

- Divergent and convergent thinking
- Experience from several situations in different organizations
- Better technical training, usually

□ Disadvantages

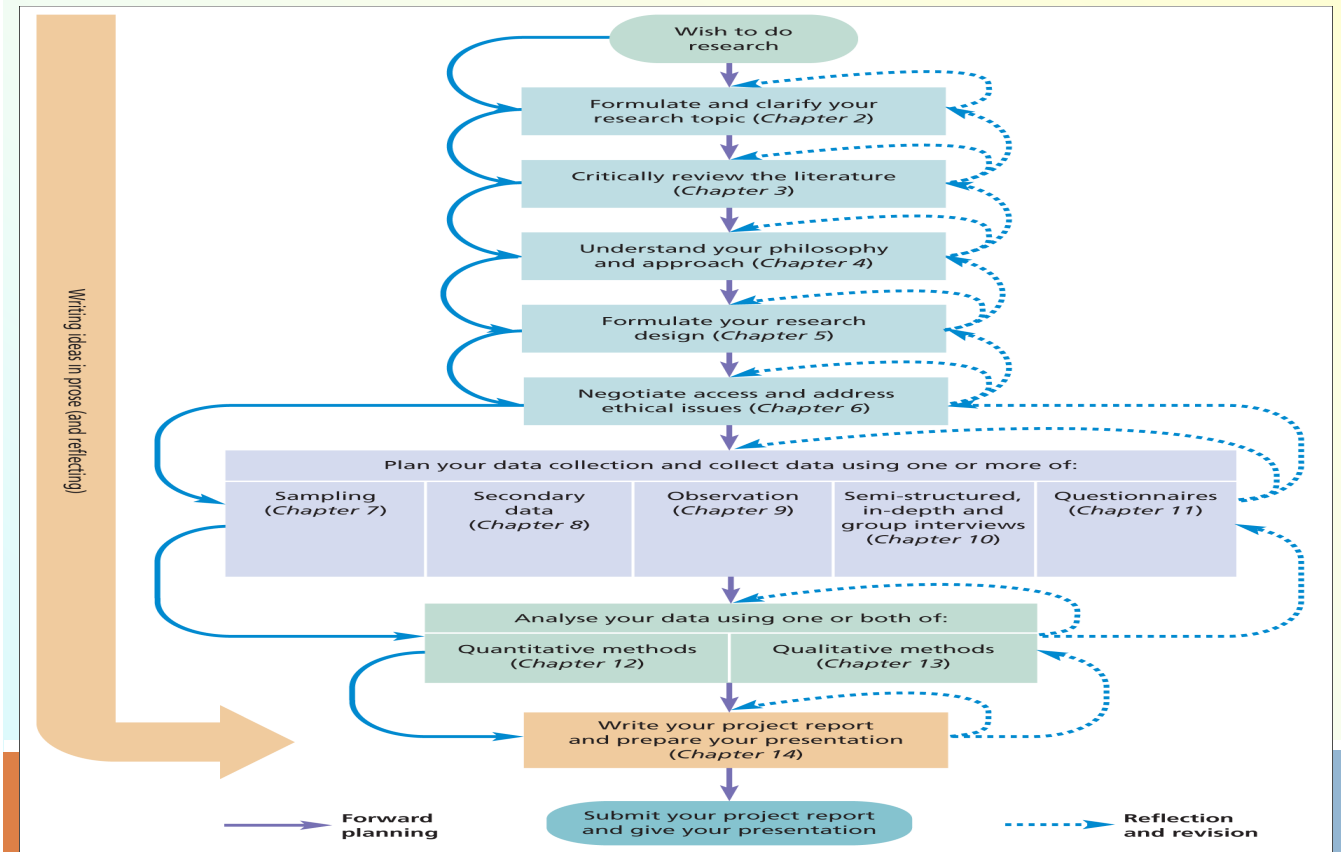
- Takes time to know and understand the organization
- Rapport and cooperation from staff not easy
- Not available for evaluation and implementation
- Higher costs

The research process

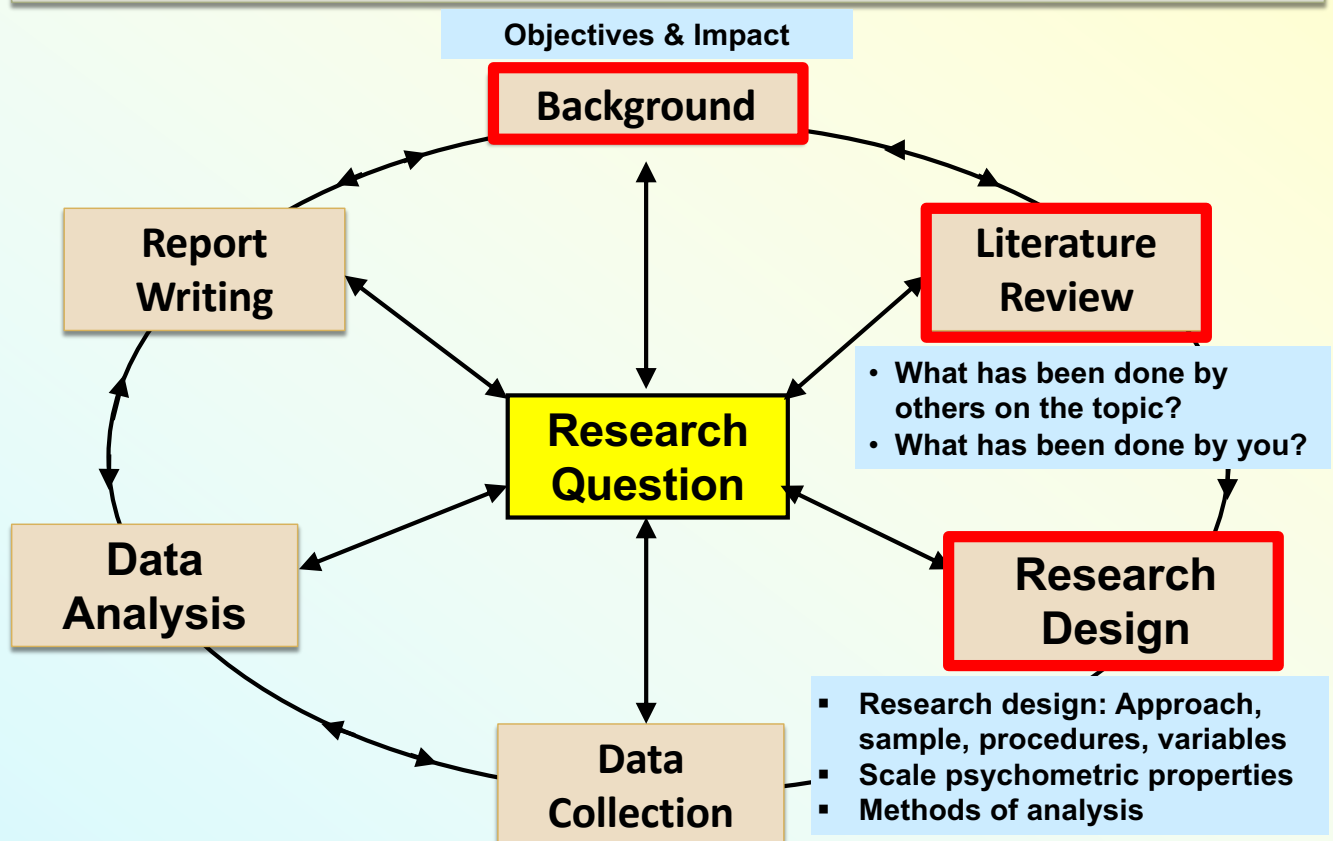
- research question
- literature and theory review
- research design & methodology
- data collection
- analysis
- Interpretation
- conclusions
- recommendations

Figure 1.2 The research process

Source: © Mark Saunders, Philip Lewis and Adrian Thornhill 2011



Proposal: Research Process



RGC Research Grant Application Form

Part I: Summary of the Research Proposal

Part II: Details of the Research Proposal

**Part III: Institutional Endorsement and
Declaration of Research Ethics / Safety
Approval.**

17

Part I : Summary

- **Particulars of Principal Investigator**
- **Particulars of Project: Title**
- **Abstract (1 page)**

Project Title

- Informative: highlights the **key issues/topics** of the study
- **Short, concise, and precise**
- **No abbreviations, no jargons**

Example of a title:

**How Capitalism Works in China State-Owned Enterprises:
An Agency Assessment of their Corporate, Social and
Societal Performance**

19

Business Studies

- The **Impact of Housing Status** on **Labor Market Outcomes** (Dr Chan William; HKU; 325K; 2013)
- Organizational Citizenship Behavior: A Multilevel and Cross Cultural Study (Prof Lam Simon Sing Kwong; HKU; 295K; 2013)
- The **Drivers and Impacts of** Knowledge Exchange within a Supply Chain: **An Empirical Study** (Dr Lee Hsiao-Hui; HKU; 828K; 2013)
- **How Capitalism Works in China State-Owned Enterprises: An Agency Assessment** of their Corporate, Social and Societal Performance (Prof Tse David K; HKU; 350K; 2013)
- Time to leave? The **influence of resource dependence structures** on **sequential investment termination** by **venture capital firms** (Dr Zheng Yanfeng; HKU; 583K; 2013)
- **Consumer Responses to** Food Assortments, Menus, and Nutrition Information (Prof Mukhopadhyay Anirban; HKUST; 390; 2013)

Abstract

3 key questions:

1. **What** do you want to find out, and **why**?
2. **How** will you do it (& **theory**)?
3. What do you **expect** to get and **so what**?

- Maximum **one** A4 page
- **Comprehensible** to a non-specialist
- First impression to reviewers
- Informative and indicative of the nature of the research
- If funded, abstract will be posted on RGC website
- **Chinese and English** version

21

Example of Abstract: 194913 (1 of 3)

Dr Wang Junbo (City U, HK), **Trading Activity and Price Volatility in Corporate Bond Market** (企业债券市场的交易和价格波动)

Source: <https://cerg1.ugc.edu.hk/cergprod/scrrm00542.jsp>

Price volatility and volume are two of the most closely watched trading variables in the financial market. A bulk of literature has attempted to understand the relation between these variables. Most **theoretical models** of market microstructure have generated some sort of predictions for volatility and volume. **Empirical investigations** of the volatility-volume relation are thus essential for validation of theories. **Understanding the volatility-volume relation is also important for trading strategies of portfolio managers, firm-level issuance decisions, and assessing market quality.**

22

Abstract: Example 192813 (1 of 2)

Prof Li, Julie Juan (City U HK, 2013);

**An Examination of Trust Repair upon Supply Chain Disruptions:
The Role of Organizational Justice** (供應鏈斷裂後的信任修復:公平的角色)

This project examines the repair of buyers' perceptions of suppliers' trustworthiness upon supply chain disruptions. Recovery from supply chain disruptions is critical for inter-organizational relationship management. **Based on justice theory**, we propose that trustworthiness (the ability, benevolence, and integrity of a trustee) can be repaired through installing distributive, procedural, and interactional justice between the parties. In addition, **based on causal attribution theory**, we propose that the effectiveness of employing justice approaches for trust repair is based on the severity of the supply chain disruptions caused by suppliers and market uncertainty. We will **empirically test** our propositions through **a sample of manufacturing firms in China**. The results of this project carry **important theoretical and managerial implications** for how supply chain members can repair trust. This project will **help buyers understand** supplier defections and provide researchers with a foundation for future systematic investigation on trust repair.

23

Part II: Details of Project

- **Long-term Impact and Objectives**
- **Background of research, research plan and methodology**
- **Cost and justification**
- **Declaration of similar or related proposals**
- **Grant record of investigator(s)**
- **Ancillary information**

Impact and Objectives

- What do you want to achieve through this study?
- What are the key issues and problems being addressed?
- Why do you undertake this project?
- Objectives must be presented in point form
- The “so what” question
- The possible outcome of the research project, its relevance, significance and value, such as contribution to academic, educational, scientific or professional development or potential for practical application
- Max: two A4 pages in standard RGC format

Source: <http://ugc.edu.hk/eng/rgc/sf/sf.htm>

25

Example: Long-term Impact: Project 844011 (1 of 2)

Mok, MMC (HKIED)

There is strong consensus among governments that building the capacity for self-directed learning and sustaining the motivation to learn are key educational pursuits...(literature)...It would be beneficial to both students and teachers if ways could be identified to capitalize on this collaborative culture and empower students with self directed learning. ...

This project presents the first longitudinal study in Hong Kong with a mixed approach comprising focus-group interviews and controlled experiment in naturalistic classrooms with the aim to inform educators on factors that support or impede the development of self-directed learning at the primary levels and how self-directed learning affects school outcomes. In this study, a theoretical model on the pedagogical expediency of specific intervention that combines feedback and self-directed learning on school achievement will be field-tested.

Example: objectives Project 844011 (2 of 2)

Mok, MMC (HKIED)

1. **Identify effective approaches** for the implementation of self-directed learning in schools;
2. **Establish a conceptual framework** on feedback, self-directed learning, and school achievement that aligns with Hong Kong's education aims;
3. **Evaluate the quality** of teacher feedback practice and students' self-directed learning in local primary classrooms;
4. **Determine** whether **the combined effect** of feedback and self-directed learning can improve the school achievement of primary students.

27

Approved research grant projects - Subject Area: Business

Project Title Keywords: Market Award Year: 2013

Project Number	Project Title	Principal Investigator
194913	Trading Activity and Price Volatility in Corporate Bond Market	Dr Wang, Junbo
198213	Marketing Assets, Marketing Actions, and Firms' Response Strategies to Exogenous Shocks	Dr Zheng, Xu
490113	Component procurement in a competitive market	Prof Bolandifar, Ehsan
491213	Insider Trade and Open Market Stock Repurchase	Prof Kim, Sunyoung
548713	The efficiency of internal capital markets and the quality of internal accounting information	Dr Zhang, Yong
591813	Effects of U.S. Oversight and PCAOB Inspections on International Auditors and Quality Spillovers to Non-U.S. Clients: A Study of U.S. and non-U.S. Markets	Dr Fung, Yu Kit
594613	Employees' Legal Protection and Equity Market Development: Rigidity of Employee Protection Laws, Firms' Going-public Decisions and IPO Characteristics	Dr Lee, Woo Jong
692813	Proximity and product market relationships	Prof Sen, Rik S
694213	Do Social Media Reduce Information Asymmetry in Capital Markets?	Prof Zhang, Michael X
790213	The Impact of Housing Status on Labor Market Outcomes	Dr Chan, William

Source: <https://cerg1.ugc.edu.hk/cergprod/scrrm00541.jsp>

28

Research Plan and Methodology

- Design
- Variables or Data to be Collected
- Sample and Sampling
- Data Collection Instruments
- Analysis

29

Research Design

- **How** are you going to do it?
- **Clarity**
- Give references if it is a special type of design
- The design may involve several stages/phases
- May use figures to explain your design
- May use mixed methods approach
- It is important to **explain** the reason behind specific components in your design

30

Example: Design

- The research is a **24-month longitudinal multi-cohort multi-occasion** (Marsh, Craven, & Debus, 1998) **between- and within-group quasi-experimental field design** using **mixed methods** (Creswell, 2007) and incorporating within it **both quantitative and qualitative strategies** (Figure 2).
- The complexity of the self-directed learning processes and the dynamics of classroom interactions require a **stringent research design that ensures ecological validity and methodological rigour**.
- In this study, P3 and P4 students are followed for two school years...
- **The longitudinal design will enable the researchers to track changes due to developmental and experimental treatments**
- The quasi-experimental design with an experimental group and a control group (the “matched-waiting control” group) enables ...
- A matched-waiting, instead of no-treatment, control group is included to...

31

Example: Design

Phase 1. Month 1: Preparation and Sampling.

This phase focuses attention on the refinement of the conceptual framework,...

Phase 2. Month 2: Baseline.

Baseline data will be collected from the experimental and control groups

Phase 3. Months 3 – 10: Intervention.

Day Camp will be conducted for the teachers...

Phase 4. Months 11-14: Post-test.

Post-test data will be collected

Phase 5. Months 15 – 24: Maintenance and Consolidation.

Day Camp will be conducted for teachers

32

Key Variables & Data to be Collected

- **What data** are to be collected?
- **What** are the **key variables** in the study?
- **Conceptual definition** of the variables
- Be clear and specific
- **Avoid jargons**
- Give references if the variables are unfamiliar to researchers in general
- **Concordance between design and variables**

33

Example: 144310 (3 of 4)

Prof Kim, Jeong Bon, City U HK, **Accounting Conservatism, Internal and External Governance, and Stock Price Crash Risk: Evidence from China**

(會計穩健型，內部和外部治理，以及股票價格大跌風險：中國實證分析)

Source: <https://cerg1.ugc.edu.hk/cergprod/scrrm00542.jsp>

The **primary research objective is to test the hypothesis** that ceteris paribus, accounting conservatism reduces not only the likelihood of future crash occurrences, but also delays the timing of such occurrences. In addition, we **also aim to provide evidence on** whether the ability of conservatism to predict the likelihood and timing of future crash occurrences is accentuated for firms with concentrated ownership and less effective external monitoring. **Given the scarcity of evidence on the issue, the results of the proposed research should provide useful insights into** whether the lack of accounting conservatism plays a role in recent stock market crashes around the world, and are **expected to offer important policy implications for** accounting regulations in China and other emerging economies.

34

Sample and Sampling

- Sample: Who are they?
- **Why** do you need this group of people?
- Sample size: How many do you need?
- **Why** do you need this size of sample?
- Sampling: What is the method of recruitment?
- It is important to **link** these questions with your research objectives and research design

35

Sample and Sampling: Example 844011 (1 of 2) Mok MMC, HKIED.

Participants will include **P3 (typically 8 years of age)** and **P4 (9 years)** students in Hong Kong. All local primary schools will be invited to express interest in joining the project, and among them **16 schools** will be selected to provide adequate representation of the different locations involved (Hong Kong/Kowloon/New Territories) and funding mode (government/aided). **Another 16 schools** will be selected to **match** the original sample. **The two schools in each matched-pair will be randomly allocated to the experimental and control groups.**

33

Sample and Sampling: Example 844011 (2 of 2)

Mok MMC, HKIED.

- The sample size is estimated as follows: the Statistics of Education Bureau (2010) shows that there are **523** primary schools in Hong Kong in 2009-2010. Mok's (2010) study found a **response rate of 8%** to calls for voluntary participation in longitudinal studies, with an **attrition rate of about 10% each year**. Consequently, **around 40 schools are expected to respond**.
- From among them we **will select 32** and **about 13 in each group are expected to remain** to the end of the study.
- This fits the guideline (Raudenbush & Liu, 2000; Snijders, 2005), that is based on simulation studies, of **at least 12 schools** for adequate statistical power for designs with cluster samples.
- The achieved sample size is expected to be **around 2,560 students** (= 16 schools x 2 year-levels x 2 classes x approx. 40 students/class) at baseline and **2,080 students** at the end of the study.

37

Data Collection: Example 844011 (2 of 2)

Mok MMC, HKIED

- **Mathematics Learning Motivation** is to be measured by **The Inventory of School Motivation** (ISM; McInerney & Ali, 2006) measures 8 dimensions of motivation: task, effort, competition, social power, affiliation, social concern, praise, and token.
- It has been **translated** for and **validated in Chinese populations** (Watkins, McInerney & Lee, 2002) and has been shown to have **strong reliability and validity across a wide range of cultural groups** (McInerney & Ali, 2006).
- A recent study in Hong Kong (Mok,* et al., 2010) supported the **8-factor structure** (**GFI and NNFI**: 0.89 to 1.00; **RMSEA**: 0.04 to 0.14), and found ISM to have good **reliability and validity** (**Cronbach's Alphas**: 0.77 to 0.89; **Rasch reliability** = 1.00; **INFIT and OUTFIT**: 0.99 to 1.03).

38

Proposed Analysis

- **How** will the data be handled?
- Alignment between hypotheses and analysis methods
- Give **names** of statistical methods (e.g. do not just say, “data will be analysed”, instead say, “The groups will be compared using independent-t test”)
- For sophisticated methods, give **references**
- Give **reasons** why particular methods of analysis are used

39

Proposed Analysis: Example 844011 (1 of 2) Mok MMC, HKIED

- For RQ1, the videos will be **content analyzed according to the framework of** Tunstall and Gipp’s (1996) feedback typology, which classifies assessment feedback into four types: (A: Rewarding/ Punishing; B: Approving/ Disapproving, C: Specifying attainment/ Specifying improvement, D: Constructing achievement/ Constructing the way forward). These are representative of an evaluative-descriptive continuum on feedback approaches.
- For RQ2, the videos will be **content analyzed** according to the framework of Mok,* Cheng, Moore and Kennedy (2006) for primary students’ self-directed learning.

40

Proposed Analysis: Example 844011 (2 of 2)

Mok MMC, HKIED

- For RQ3, RQ4, and RQ5, given the hierarchical data structure in the design whereby students are clustered within classes and classes within schools, a **multilevel structural equation model** for longitudinal repeated measures (Goldstein, Bonnet, & Rocher, 2007; Rabe-Hesketh, Skrondal & Pickles, 2004) will be applied **using the MATLAB** (Mathworks, 2004) **and MLwiN software** (Rasbash, Steele, Browne, & Goldstein, 2008).
- The **response variable** is a latent variable of school outcome (e.g., mathematics achievement), with repeated measures nested within each student. Students are specified at Level 2, classes at Level 3, and schools at Level 4.
- The **explanatory variables** are quality of feedback and students' self directed learning.

41

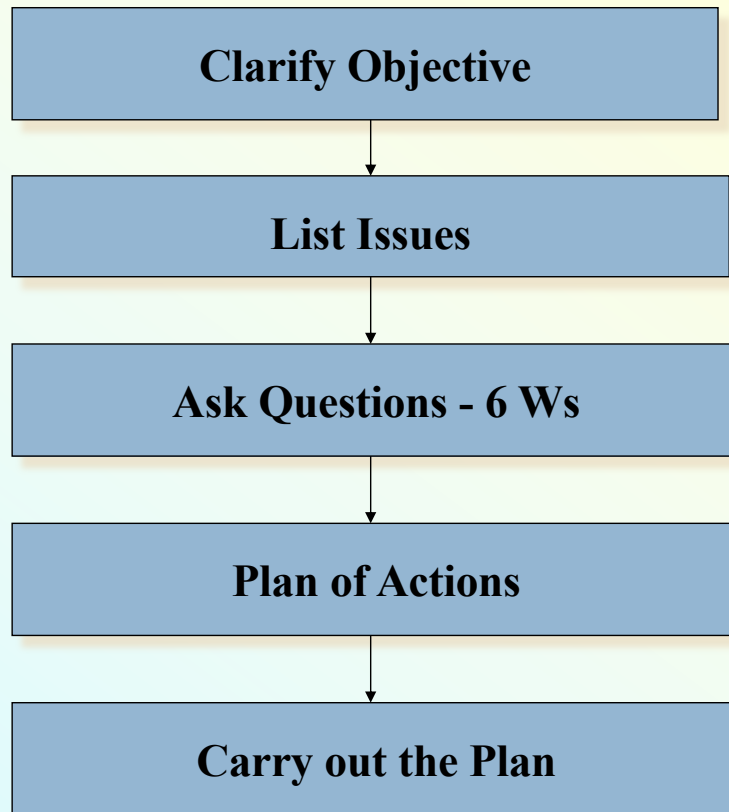
42

DEFINITION OF PROJECT MANAGEMENT

Project Management is facilitating the planning, scheduling, and controlling of all activities that must be done to achieve project objectives.

Project Management is the process of guiding your project from its beginning through its performance to its closure.

Project study process



43

Asking important questions:

The 6 Ws

- **Why** is the project being initiated?
- **What** is the problem?
- **When** the project has to be done?
- **Where** can materials be obtained?
- **Who** might do what?
- **How** should it be done?

44

Report Writing Phases

Content Formats

SAMPLE A

1. **Statement of problem**
2. **Description of methodology**
3. **Data collection and analysis**
4. **Review of findings**
5. **Conclusions**
6. **Recommendations**

45

Report Writing Phases

Content Formats

SAMPLE B

1. **Statements of problem**
2. **Analysis of problem**
3. **Possible solutions**
4. **Evaluation of options**
5. **Conclusions**
6. **Recommendations**

46

Final Parts of a Report

1. Findings

- **Accurate**
- **Factual**
- **Descriptive information**

47

Final Parts of a Report

2. Conclusions

- **Interpretations**
- **Evaluations**
- **Explain what happened**
- **Make value-judgments**

48

Final Parts of a Report

3. Recommendations

- **What need to happen**
- **Why it needs to happen**
- **Steps to solve the problem**

49

Example

- ❑ **1) We found that (it is raining)**
- ❑ **2) We conclude that (you will get wet if you go outside)**
- ❑ **3) We recommend that (you get an umbrella)**

50

Your Project may result in making recommendations to your clients on improvements. It is important that:

- **a) Your recommendations specifically address problems, opportunities for improvements identified in your conclusions;**
- **b) The conclusions you draw are specifically supported by your findings.**

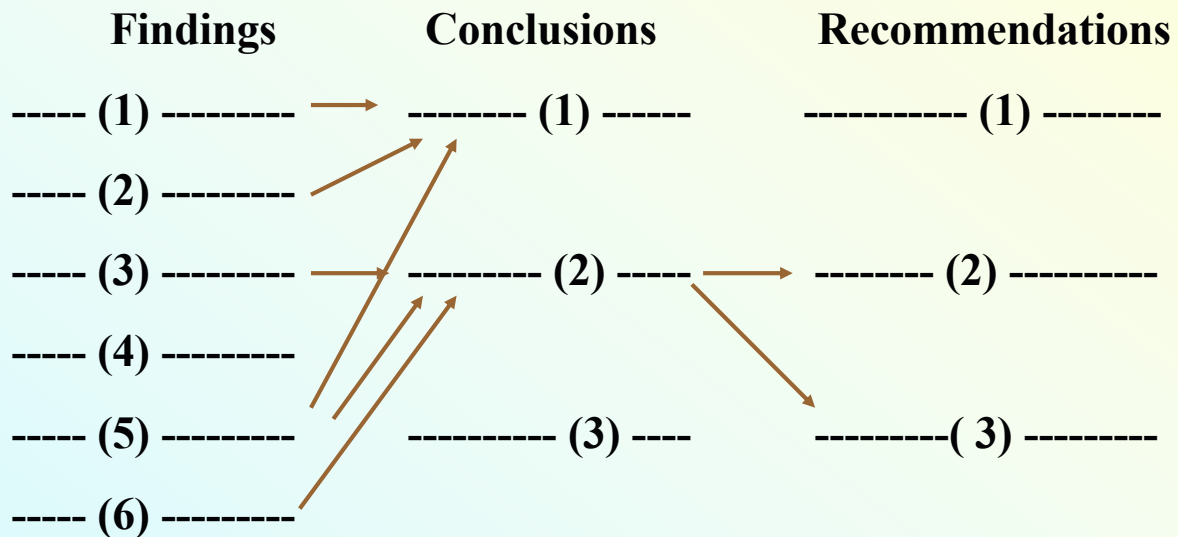
51

Be vigorous and make sure that:

- **a) Your observations and data are factual information and not assumptions;**
- **b) Your findings are 'findings' and not 'conclusions' and vice versa;**
- **c) Your conclusions are backed by findings;**
- **d) Your recommendations do lead on from your conclusions.**

52

- To achieve the above, a structured analysis showing the relationship between your findings, conclusions and recommendations should be mapped out. A 'map' of the process is as follows:



53

The above example shows:

- Finding in (4) does not lead to a conclusion. Is there a material conclusion that can be drawn from this finding?
- Conclusion (3) is not supported by findings. Either get findings to support it or discard it.
- Conclusion (2) supports two recommendations. Check again to see if either the conclusion is really two conclusions or the two recommendations are really only one.

54

The Written Research Report

- The key purpose of any research report is to offer a clear description of what has been done in the various stages of the research process.
- Important to identify the specific purpose of the report, so that it can be tailored accordingly.
- Examples
 - ▣ Simple descriptive report
 - ▣ Comprehensive report, offering alternative solutions

Contents of Research Report

- Title
- Executive summary or abstract
- Table of contents
- List of Tables, Figures, and Other Materials
- Preface
- Authorization Letter
- The introductory section
- The body of the report
- The final part of the report
- References
- Appendix

Characteristics of a Well-Written Report

- Clarity
- Conciseness
- Coherence
- The right emphasis on important aspects
- Meaningful organization of paragraphs
- Smooth transition from one topic to the next
- Apt choice of words
- Specificity

Essence of a High Quality Project Report

- Clear & concise
- Sound methodology
- Comprehensive analysis of information & data
- Conclusions & recommendations based on well-reasoned analysis
- Contents arranged in logical sequence
- Professionally presented

Essence of a High Quality Project Report

- 1. The report should be clear, concise and easily understood;**
- 2. It should demonstrate the appropriate methods of assembling and processing information;**
- 3. It should include a comprehensive analysis of available information and distinguish facts from opinions;**

59

Essence of a High Quality Project Report

- 4. Alternative courses of action related to the analysis should be presented where appropriate;**
- 5. Conclusions and recommendations should be based on well-reasoned arguments and analyses;**
- 6. The materials and analyses should be arranged in a logical sequence by sections or chapters, including supportive information in appendices, if necessary;**
- 7. There should be a Table of Contents indicating page numbers;**

60

Essence of a High Quality Project Report

8. Statistics should illustrate, substantiate or explain the text;
9. Technical terms should be defined;
10. Sources of all statistics, information and quotations must be stated and a bibliography of books and papers consulted should be included.

Recommended writing reference:

Strunk, White, Angell (2014), *The Elements of Style*, 4th Ed. Pearson.