

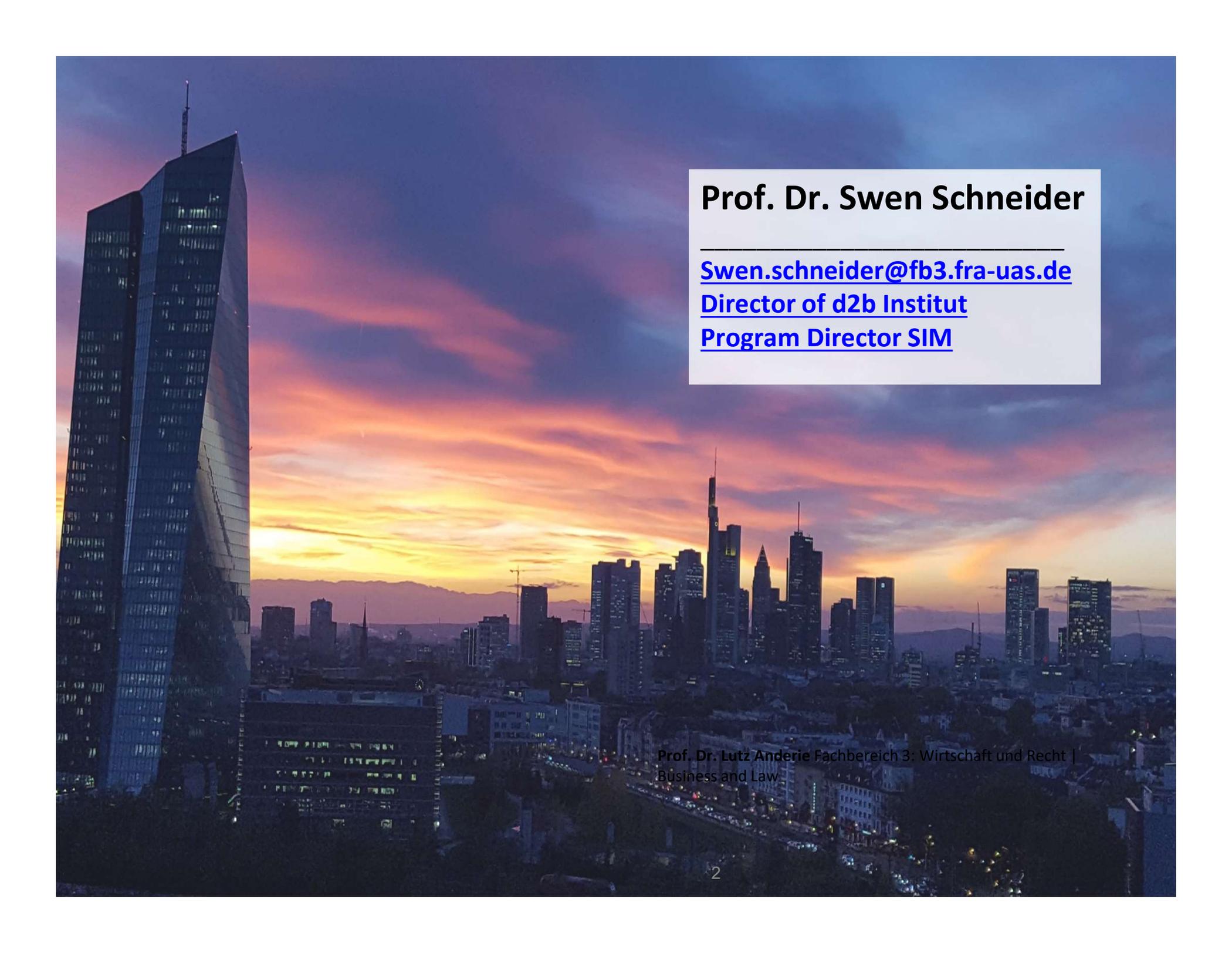
(1-2) Intro

# Research Methods

Prof. Dr. Swen Schneider  
Leadership/Strategic Information Management  
WS 2023/24

Pswd: ResMeth23

**Fachbereich 3**  
Wirtschaft und Recht | Business and Law



**Prof. Dr. Swen Schneider**

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[Director of d2b Institut](#)

[Program Director SIM](#)

Prof. Dr. Lutz Anderie Fachbereich 3: Wirtschaft und Recht |  
Business and Law



## Basic Literature

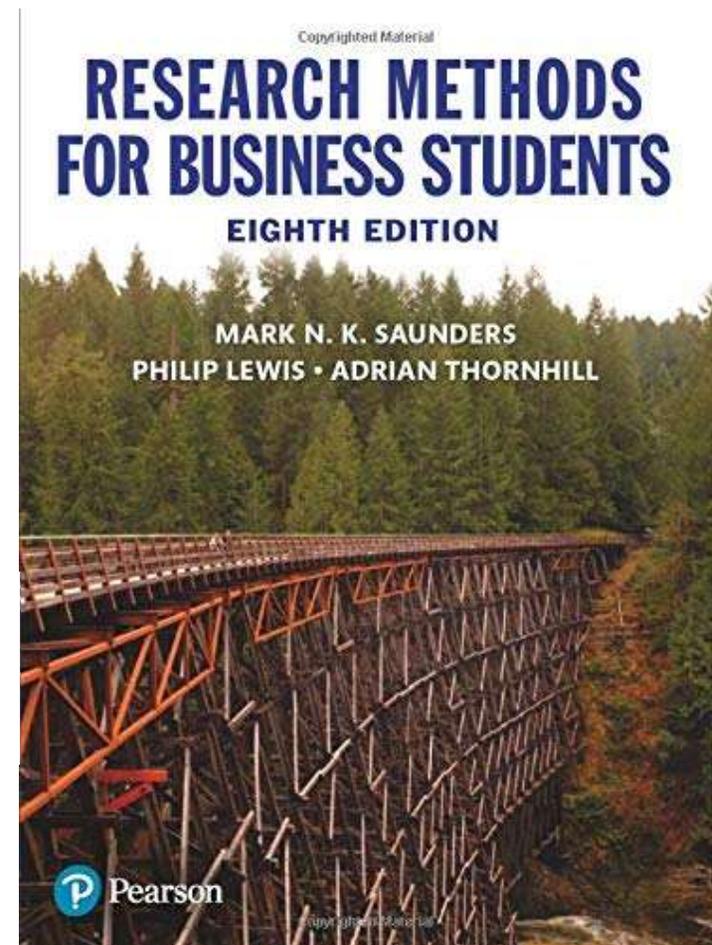
# Research Methods for Business Students

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ISBN-13: 978-1292208787



UNIVERSITY OF  
BIRMINGHAM

Professor Mark NK Saunders  
Department of Management  
Professor of Business Research Methods  
Director of Postgraduate Research Programmes





Exam phase:  
05.02.2024 – 24.02.2024

## Schedule

- online 16.10.2023 Intro and topic overview (Chapter 1-2)
- online 23.10. Science(Chapter 3-6) + final group formation & Research Topic
- online 30.10. Scientific Work and Data Sourcing (Chapter 7-12 and 13-14)
  
- online 06.11. Individual Introduction of your Research Proposal (3min/group)
- online 13.11. Individual questions
- online 20.11. Individual questions
- online 27.11. Individual questions
  
- online 04.12. Individual questions
- Online 11.12. Individual questions
- Online 18.12.2023 Individual questions
  
- Online 08.01.2024 Individual questions
- Online 15.01. Individual questions
- on site 22.01. Presentation of your Research Study** (on site in the seminar room)
- on site 29.01. Presentation of your Research Study** (on site in the seminar room)

Oktober 2023							
	MO	DI	MI	DO	FR	SA	SO
39	25	26	27	28	29	30	1
40	2	3	4	5	6	7	8
41	9	10	11	12	13	14	15
42	16	17	18	19	20	21	22
43	23	24	25	26	27	28	29
44	30	31					

November 2023							
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48	27	28	29	30			

Dezember 2023							
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Januar 2024							
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Februar 2024							
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7	12	13	14	15	16	17	18

Please use core statements in your presentation  
(without core statements 1 grade deduction)

---

## Grading and Deliverables

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- 1** Presentation Research Study and Background Questions (50%)  
-> **Teamwork 4 persons** /engl.  
22. + 29.01.2024 -> Final Presentation 10 min + 10 min discussion /Team
- 2** Final Paper (50%) - **Teamwork** max. 4 persons /engl. /Team  
7-8 pages (or net ~ 2000-2500 words), including pictures and tables, etc.  
excluding Coverpage, Index, Bibliography, Academic standard  
Due date: 29.01.2024 (upload CampUAS)

**Main Topic: Analysis of eTrust and Anxiety about automated content creation and automated decision making when using new technologies**

**Goal: To execute a small research project in all its phases**

- I. Define the Topic
- II. Build and discuss the Case and Scenarios
- III. Verify the Case (Research)
- IV. Identify and „Connect“ Theorie
- V. Identify Research Methods and Collecting Data
- VI. Analyse Data
- VII. Create a Report



**Trust**

**and**

**Anxiety  
(feer)**



Use of selected instruments for the realization of a small research study of a particular problem.

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## Goal of the Module

---

You know

- quantitative and qualitative methods of economic and social sciences
- various methodological approaches for the creation and evaluation of questionnaires and secondary analysis
- the current methods of management and empirical behavioral research

You are able to

- create scientific based analysis, reports and presentations.
- use scientific methods applied in Praxis
- work with current statistical and business intelligence programs
- easily plan projects and use the appropriate tools
- use statistical methods and interpret their results

Topic: how can I trust on automated content  
Due date: 22. + 29.01.2024

## Groups



**Topic1: Research on Automated Content Generation**

Team1:

**Topic2: Anxiety about using New Technologies**

Team2:

**Topic3: How to manipulate Online Buying Decisions**

Team3:

**Topic4: How and what for people using LLMs**

Team 4:

**Topic5: Mechanisms to influence Recommendations**

Team 5:

**Topic6: The Use of ChatGPT compared to Bard**

Team 6:

**Topic7: Mechanisms of how Google collects data like using Crawler,  
Sponsoring, Google AdWords, Bard, etc.**

Team 7:

**Topic8: The Success of Influencer**

Team 8:

**Topic9: Mechanisms of Nudging**

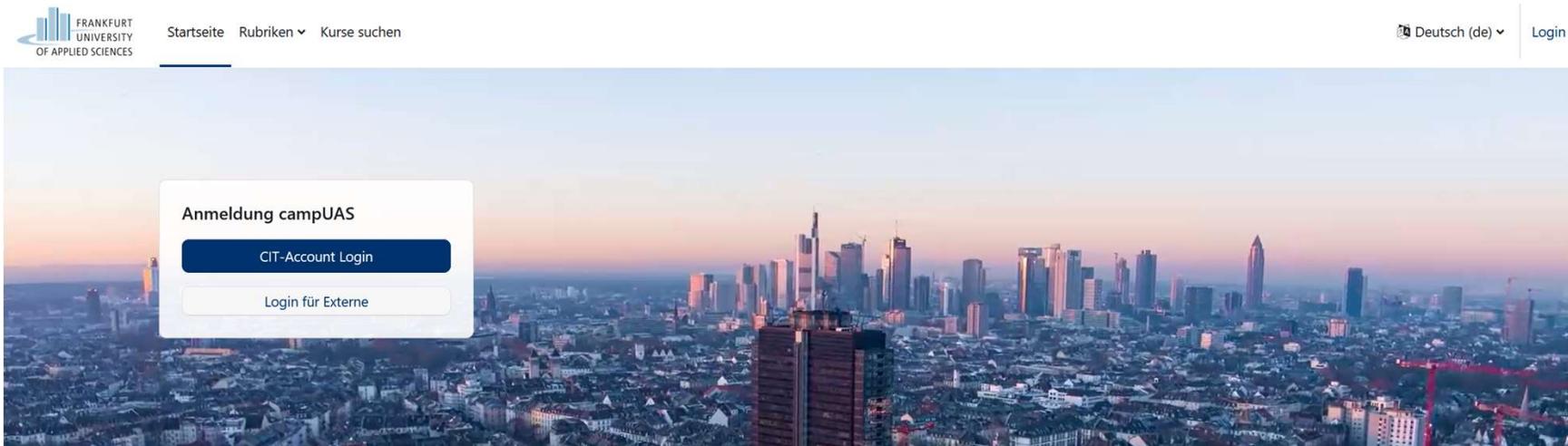
Team9:

**Topic10: Automated Decision Making**

Team10:

All material are at the CampUAS Platform for download  
AND you can upload your work

## CampUAS : Schneider: Research Methods (SIM/Leadership)



The screenshot shows the CampUAS login interface. At the top left is the Frankfurt University of Applied Sciences logo. Navigation links include 'Startseite', 'Rubriken', and 'Kurse suchen'. On the top right, there is a language selector set to 'Deutsch (de)' and a 'Login' button. The main content area features a large background image of a city skyline at sunset. A white login box is centered, titled 'Anmeldung campUAS', with two buttons: 'CIT-Account Login' (dark blue) and 'Login für Externe' (light blue).

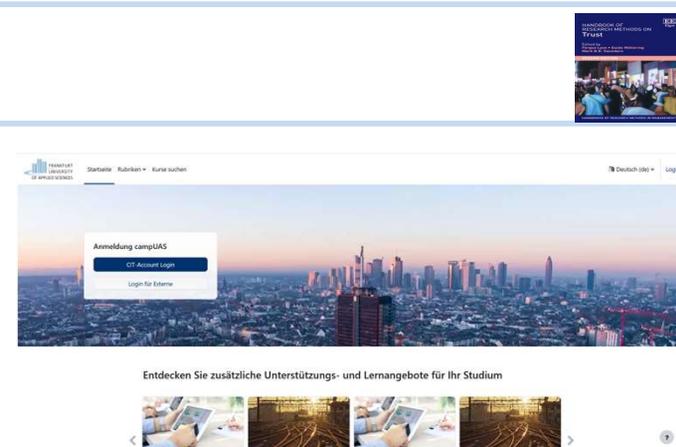
Entdecken Sie zusätzliche Unterstützungs- und Lernangebote für Ihr Studium



# Key (Einschreibeschlüssel): ResMeth23

please name your workproducts as follows

## Standards

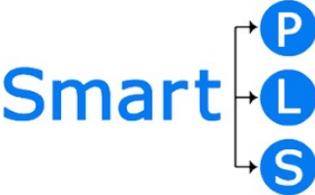
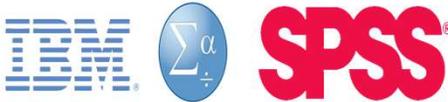
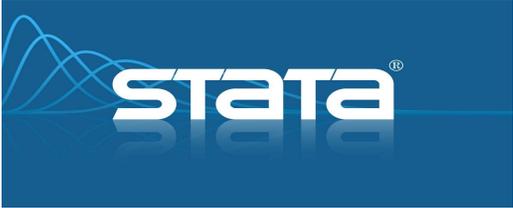


Your Team Presentation (Type=Pre)  
TYPE\_TopicNo\_TopicName

Your final Team Paper (Type=TP)  
TYPE\_TopicNo\_TopicName

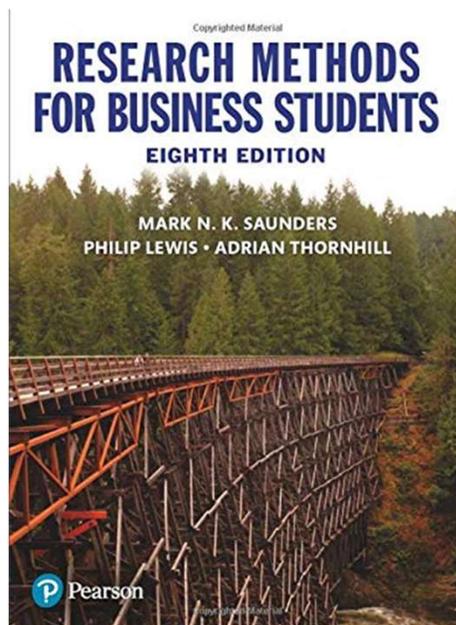
To execute a small research project in all its phases

## Statistical programs

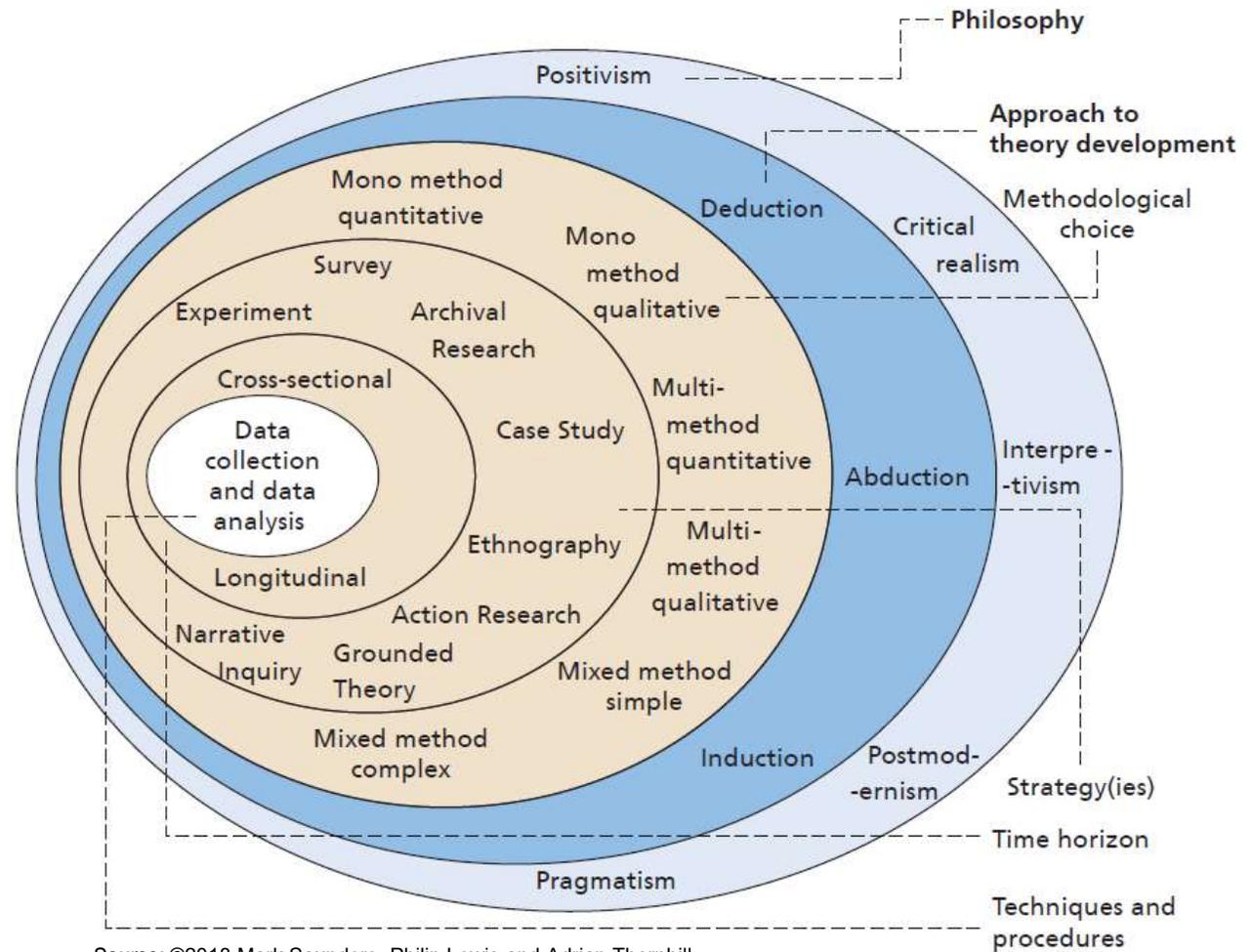


## Agenda



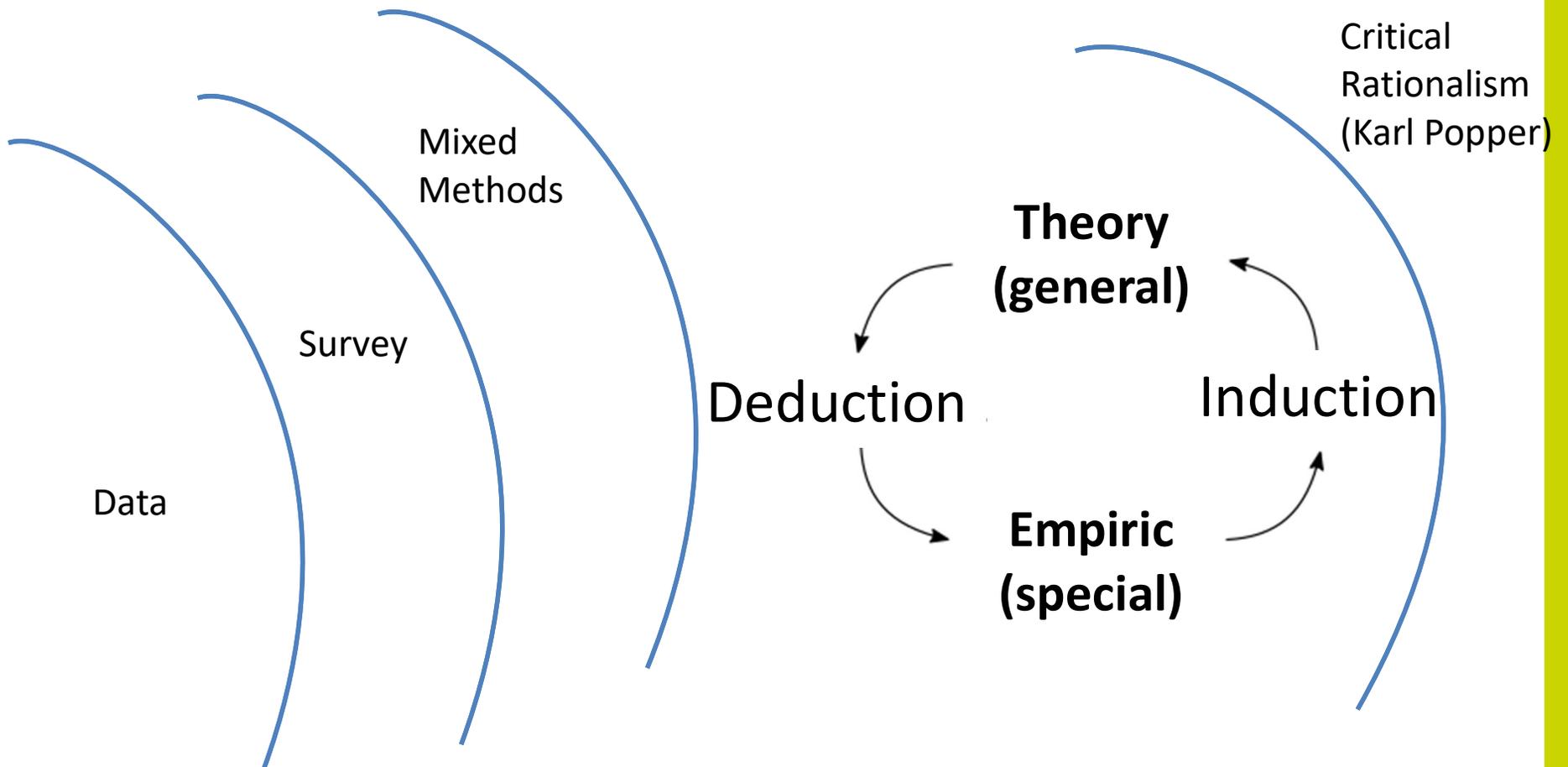
- 1 Business and management research, reflective diaries and the purpose of this book
- 2 Choosing a research topic and developing your research proposal
- 3 Critically reviewing the literature
- 4 Understanding research philosophy and approaches to theory development
- 5 Formulating the research design
- 6 Negotiating access and research ethics
- 7 Selecting samples
- 8 Utilising secondary data
- 9 Collecting data through observation
- 10 Collecting primary data using research interviews and research diaries
- 11 Collecting primary data using questionnaires
- 12 Analysing data quantitatively
- 13 Analysing data qualitatively
- 14 Writing and presenting your project report

**Figure 4.1**  
**The 'research onion'**



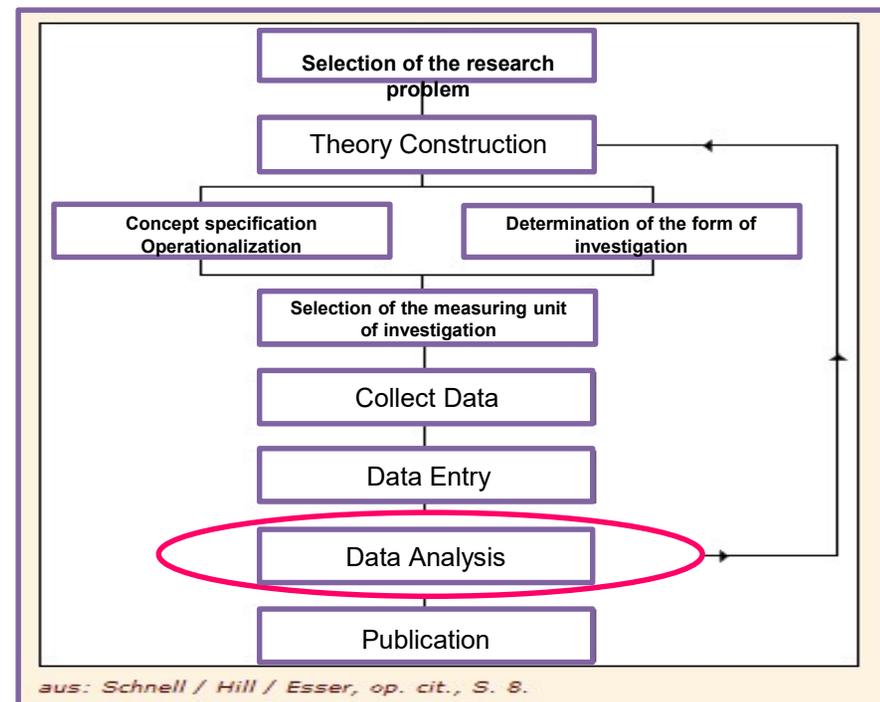
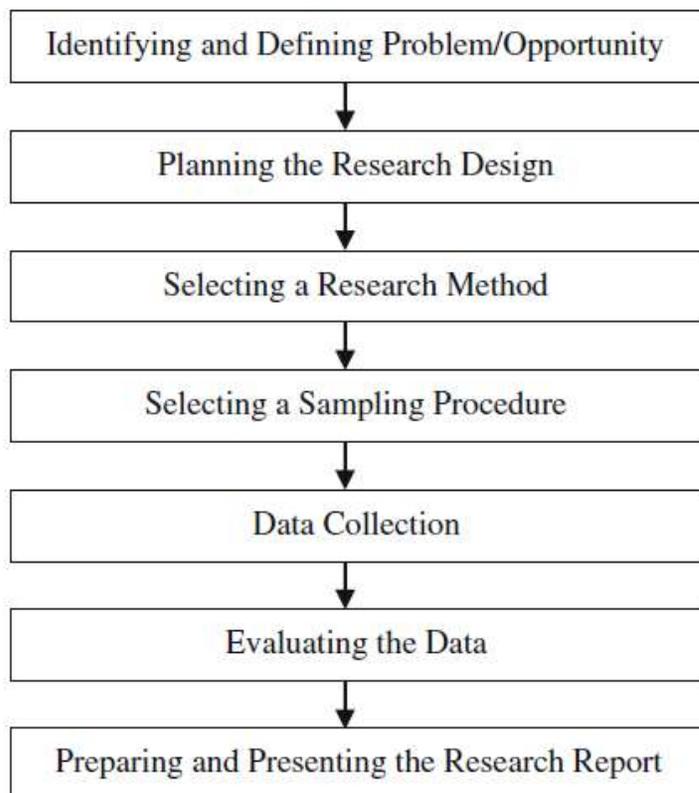
Source: ©2018 Mark Saunders, Philip Lewis and Adrian Thornhill

**Figure 4.1**  
**The 'research onion'**



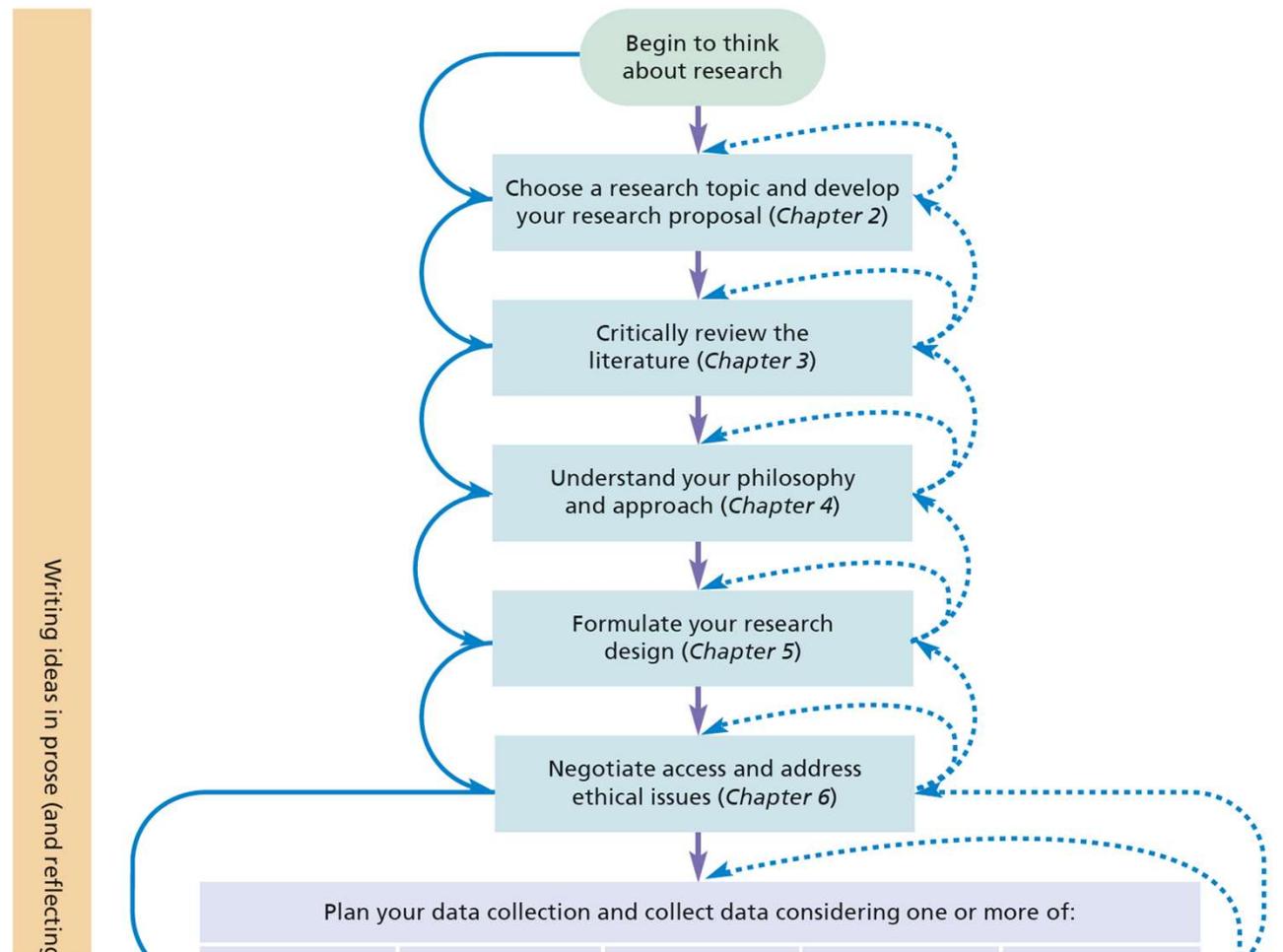
## The Research Process

### How are the Steps of doing Research....



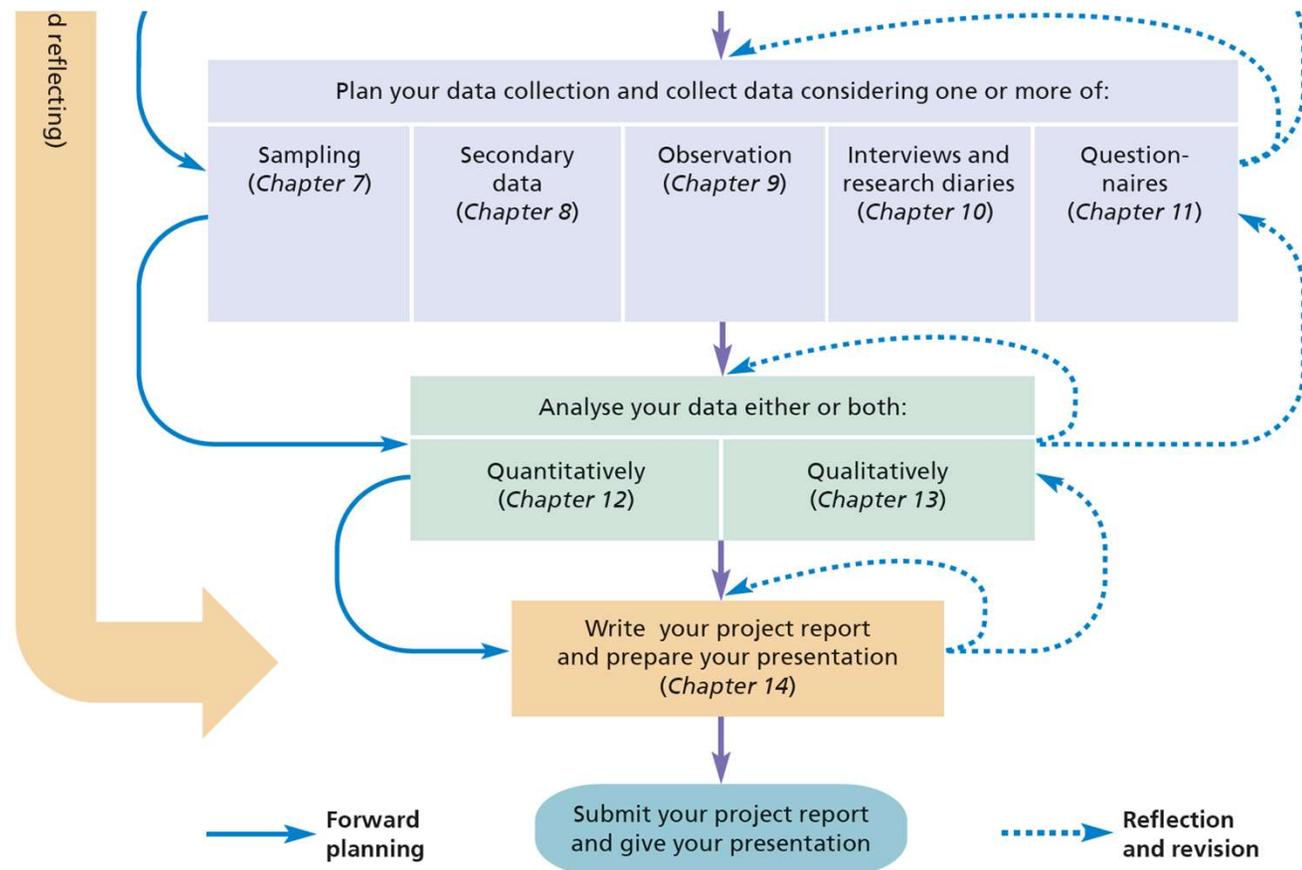
<http://www.uni-konstanz.de/FuF/Philo/Geschichte/Tutorium/Themenkomplexe/Grundlagen/Forschungsprozess/forschungsprozess.html> (11/2007)

**Figure 1.2**  
**The research process (1 of 2)**



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Source: © Mark Saunders, Philip Lewis and Adrian Thornhill 2018

**Figure 1.2**  
**The research process (2 of 2)**



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# What is Research?

## Research Approaches are different in several academic areas



Research in Chemistry



Research in Medicine



Research in Biology



Research in Sociology



Research in  
Business Admin.



Research in  
Business Informatics



Market Research

**3. Varianzanalyse**

Neben der Hauptfaktorenanalyse stellt die Varianzanalyse (Streuenanalyse) eine Methode zur Untersuchung des Einflusses einer oder mehrerer Variablen auf ein Zielgröße dar.

Dabei sollen die Einflussgrößen durch Faktoren (genannt unabhängige) die zu einem Zielgröße (genannt abhängige) sind, die bei einer Einflussgröße einstellbar sind, untersucht werden.

Interessiert bei einer Untersuchung nur eine Zielgröße (abhängige Variable), so liegt der Fall einer einseitigen Varianzanalyse vor, die bei einer Einflussgröße einstellbar ist. Varianzanalyse, bei mehreren Einflussgrößen (unabhängige Variablen) genannt wird, umfasst die Verfahren der ANOVA.

Bei der multivariaten Varianzanalyse werden mehrere Zielgrößen gleichzeitig betrachtet (Multivariate Analysis of Variance, abgekürzt MANOVA), wobei auch hier ein Einfluss einzelner oder mehrerer unabhängiger Einflussgrößen untersucht werden können.

Stufe der abhängigen Variablen (quantitativ)	Zahl der Faktoren (Einflussgrößen) (qualitativ)		
	= 1	= 2	= 3
= 1	1-faktorielle Varianzanalyse	2-faktorielle Varianzanalyse	3-faktorielle Varianzanalyse
= 2	2-faktorielle Varianzanalyse	2-faktorielle Varianzanalyse	2-faktorielle Varianzanalyse
= 3	3-faktorielle Varianzanalyse	3-faktorielle Varianzanalyse	3-faktorielle Varianzanalyse

**Abb. 34: Unterschiedliche Typen der Varianzanalyse**

Einige Beispiele sollen die möglichen Fragestellungen veranschaulichen:

(1) Welche Anwerkklassen haben unterschiedliche Produktivitäten auf die Höhe des Umsatzes? (Fall 1)

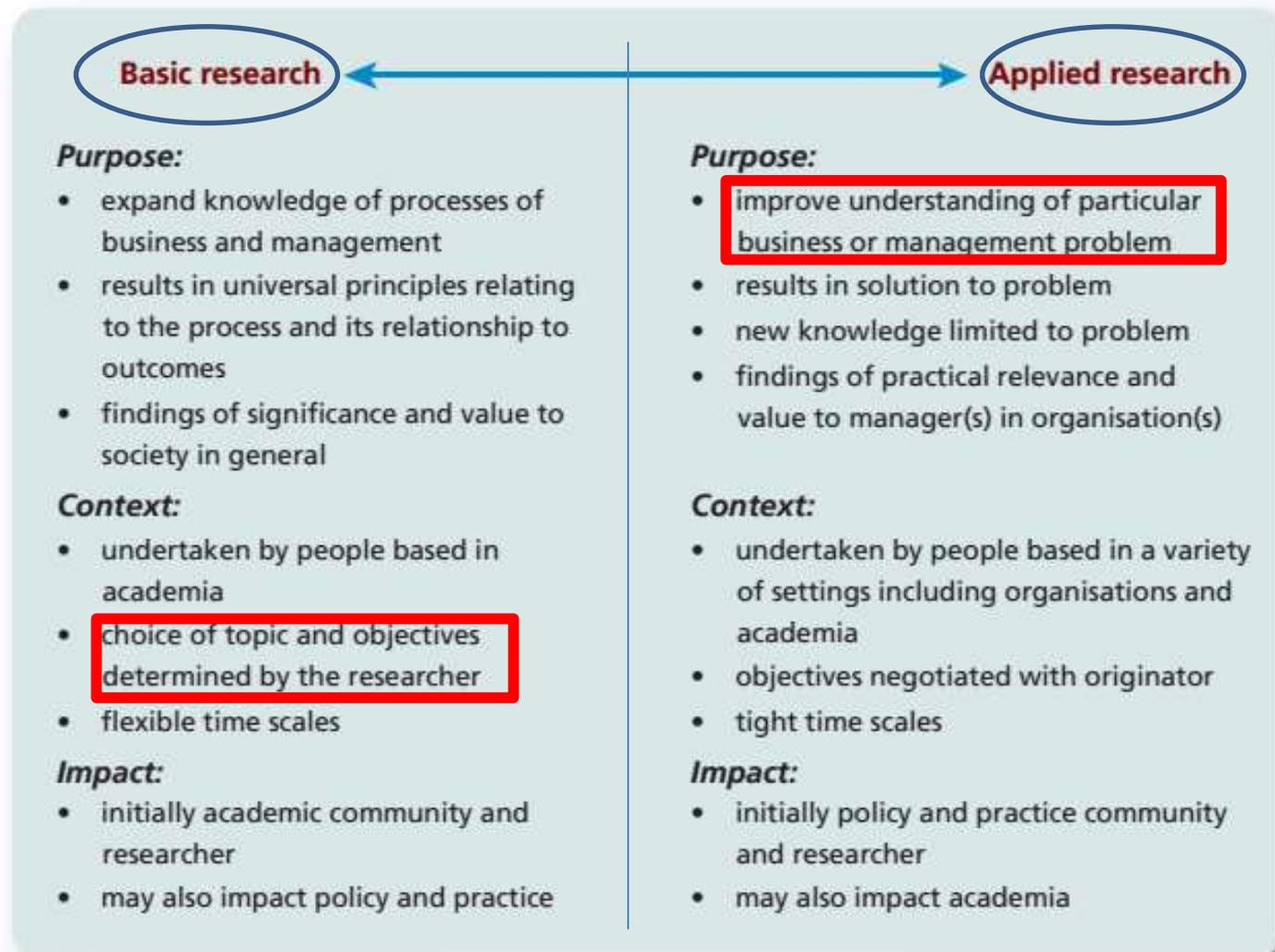
(2) Welche Anwerkklassen haben unterschiedliche Produktivitäten und unterschiedliche Umsätze auf die Höhe des Umsatzes? (Fall 2)

(3) Welche Anwerkklassen haben unterschiedliche Produktivitäten auf die Höhe des Umsatzes und die Anzahl der verkauften Einheiten? (Fall 3)

Empirical Social  
Research

# We do Applied Research at our Module

## What kind of Research do we have



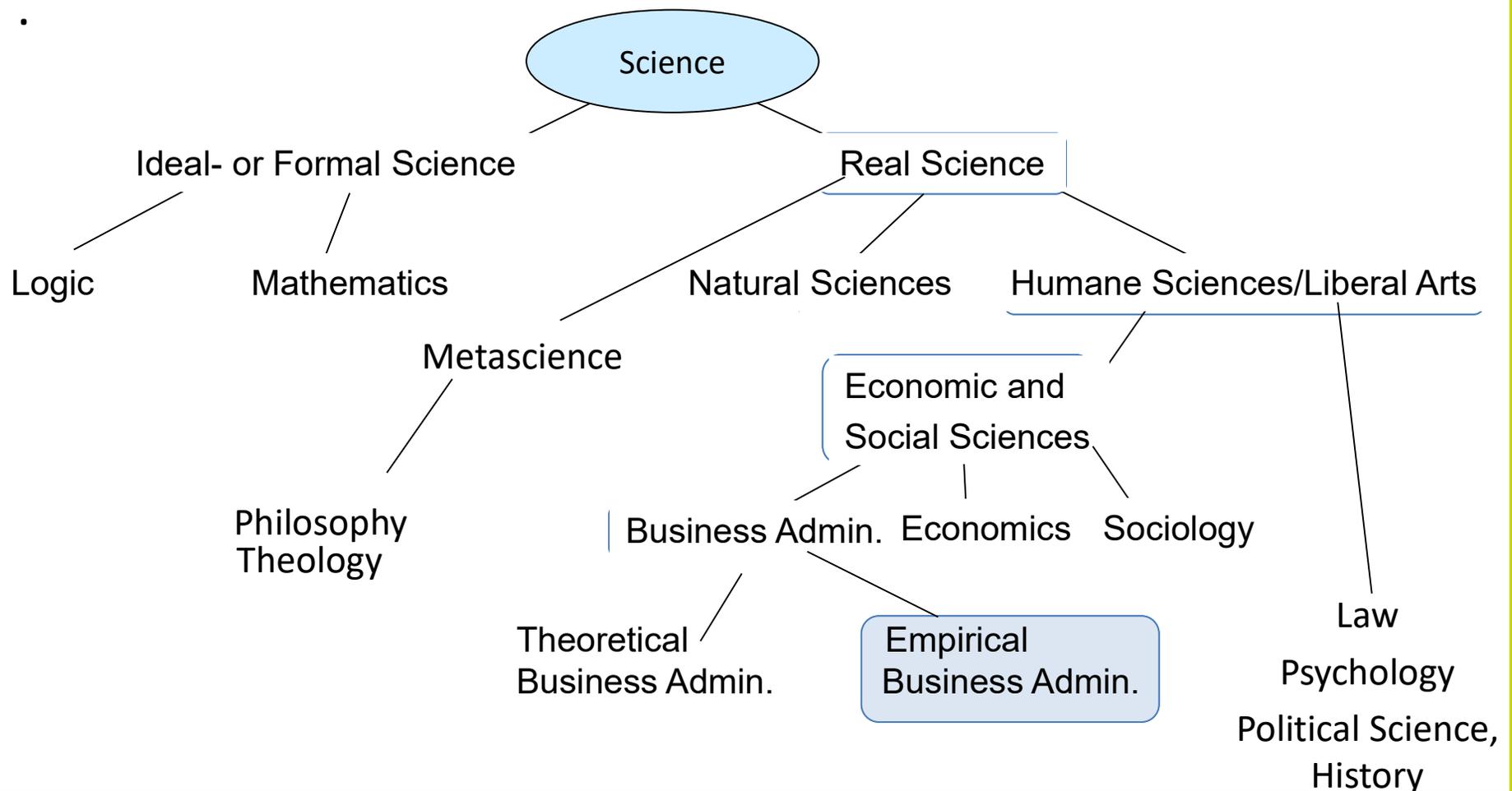
Research at the Fachhochschulen (BMBF)  
University of Applied Sciences

The screenshot shows the BMBF website interface. At the top left is the logo of the Bundesministerium für Bildung und Forschung. The navigation menu on the left includes: HIGHTECH-STRATEGIE, BILDUNG, FORSCHUNG, WISSENSCHAFT, INTERNATIONALES, MINISTERIUM, Strategieprozesse, Analysen/Statistiken, BUFO 2006, and **Forschungslandkarten** (with sub-items: Hochschulen, Max-Planck-Gesellschaft, Fraunhofer-Gesellschaft, Helmholtz-Gemeinschaft). The main content area features a header 'Forschung in Deutschland - Forschungslandkarten' and a text box asking 'Wo findet Forschung in Deutschland statt? Welche regionalen Cluster gibt es? Welche Querbezüge lassen sich erkennen? Um Fragen wie diese beantworten zu können, entwickelt das BMBF seine Forschungslandkarten weiter.' Below this, it states 'Aus den aktuellen Daten von Forschungseinrichtungen entstehen thematisch aufbereitete Landkarten, die den Zugang zur Forschung mit regionalen Bezügen ermöglichen.' and 'Auf den folgenden Seiten sind Karten der Hochschulen und Forschungsorganisationen zu finden:'. A list of links follows: Hochschulen (www.fraunhofer.de/), Max-Planck-Gesellschaft (http://www.bmbf.de/de/864.php), and Fraunhofer-Gesellschaft (http://www.bmbf.de/de/5355.php).

# Applied Research

## . Science and Business Administration

The goal of science is researching for the truth, obtaining fact-bound ordered relationships, systematic ordering of the truth and secure judgments in their truth



## Popular research methods

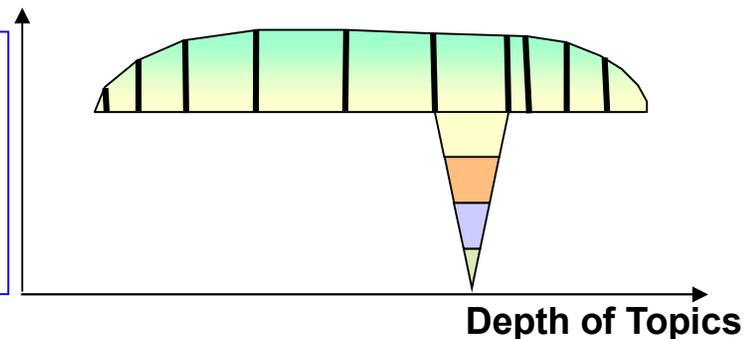
- Survey research
- Case research
- Experimental research
- ...

### What is rigor and relevance in research?

Scholars must decide whether to emphasize rigor, which includes scientific knowledge, theory and data, or to emphasize relevance, which focuses on practical examples, timeliness, and applicability to life outside of the academic arena.

After a description of the topic and its various aspects and categories, it must be narrowed down ->>

Range of Topics



Research is a systematic process of knowledge generation

## What is Scientific Research

Research is the search and extraction of new knowledge. This is done through systematic and comprehensible procedures in various disciplines.

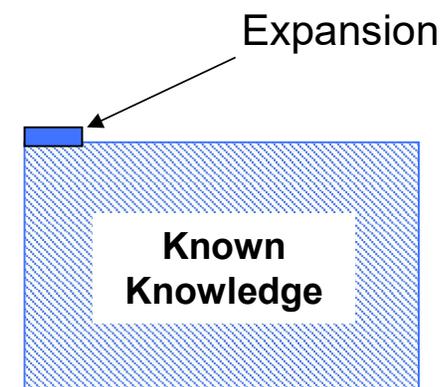
Research expands the existing knowledge, while basing it on existing knowledge. Current systems, rules or theories will either be disproved, further developed or transferred to other areas.

It can be differentiated between two types of research:

- Basic research ("pure" research)
- Applied research

Science is the activity of acquiring knowledge through research. It is passed on through teaching and the social, historical and institutional framework.

Research expands the existing knowledge, while basing it on existing knowledge. Current systems, rules or theories will either be refuted, further developed or transferred to other areas.



## Expectations

---

## Definition

---

We can define business and management research as undertaking systematic research to find out things about business and management.

### Structure

- Title
- Background
- Method
- Timescale (Milestone Plan)
- Resources
- References

To find a good research objective you can use this questions

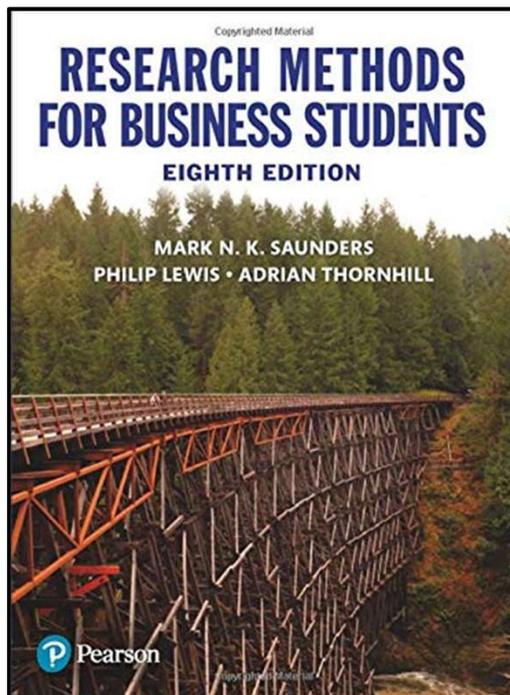
**Table 2.4**  
**Criteria to devise useful research objectives**

Criterion
Transparency ( <i>What does it mean?</i> )
Specificity ( <i>What am I going to do?</i> )
Relevance ( <i>Why I am going to do this?</i> )
Interconnectivity ( <i>How will it help to complete the research project?</i> )
Answerability ( <i>Will this be possible?</i> ) ( <i>Where shall I obtain data?</i> )
Measurability ( <i>When will it be done?</i> )

## Definition



### Generating and refining research topic ideas



### Box 2.1 Checklist

#### Characteristics of a good research topic

##### Appropriateness

- ✓ Does the research topic fit the specifications and meet the standards set by the examining institution?
- ✓ Does the research topic contain issues that have a clear link to theory?
- ✓ Are you able to state your research question(s), aim and objectives clearly?
- ✓ Will the proposed research be able to provide fresh insights into this topic?
- ✓ Are the findings for this research topic likely to be symmetrical: that is, of similar value whatever the outcome?

##### Capability

- ✓ Do you have, or can you develop within the project time frame, the necessary research skills to undertake the research topic?
- ✓ Is the research topic achievable within the available time?
- ✓ Is the research topic achievable within the financial resources that are likely to be available?
- ✓ Are you reasonably certain of being able to gain access to data you are likely to require for this research topic?

##### Fulfilment

- ✓ Does the research topic really interest and motivate you?
- ✓ Will the research topic help towards the achievement of your future aspirations or career goals?

# The Title should be meaningful and interesting

## How can your research proposal be structured?

### Title

The title should simply and concisely **summarise the research question**. It should reflect the concepts or variables in your research question

### Background

This section has a number of related functions. It needs to **introduce the reader to the research issue or problem**. This addresses the question, **‘what am I going to do?’** You also need to provide a rationale for your proposed research and to justify this. This may be composed of two elements, one relating to you and the other relating to the **value of the work**. Your reader will be looking for some evidence that this is a topic in which you have sufficient interest to sustain the effort that will be required from you over the period of the research project.

Chapter 2 Choosing a research topic and developing your research proposal

be at one end of a continuum, at other end of which lies a very occasional covers about research. Do not be like the student who came to Paul to talk over a research proposal and said, 'Of course, I know what the answer will be. When asked to explain the purpose of doing the research, I should discuss the context, the literature, the literature and research aims (which is another supervisor and, incidentally, another topic). Approval of your research proposal implies that it is a reflection. While this is no guarantee of acceptance, it does mean that you have written your research proposal with an appropriate destination and purpose plan. It will be for you to ensure that you do not get lost!

How can your research proposal be structured?  
There are potentially different ways to structure your research proposal. Different research traditions (Chapter 3) may lead to different ways of structuring your proposal and, later on, your research report (Chapter 18). We discuss what these look like at the end of the chapter in summarising your research proposal. You will therefore need to check if your supervisor or faculty requires a different structure. Whatever structure you are required to adopt, this will need to be driven by and focused on your research question, aims and research objectives, and you will need to ensure that you produce a coherent proposal.

Title  
The title should simply and concisely summarise the research question. It should avoid unnecessary phrases such as 'A study to explore...'. Instead it should select the concepts or variables in your research question (Box 2.12). If your research question changes, this will naturally lead to a change to your title.

Background  
This section has a number of related functions. It needs to introduce the reader to the research issue or problem. This addresses the question, 'what am I going to do?' You also need to provide a rationale for your proposed research and to justify this. This may be composed of two elements, one relating to you and the other relating to the value of the work. Your reader will be looking for some evidence that this is a topic in which you have sufficient interest to sustain the effort that will be required from you over the period of the research project. This may relate to the need to solve a problem, to new theoretical territory, or to your research career decision. It relates to the question, 'Why am I going

**Box 2.12**  
**Focus on student research**

Devise research proposal titles  
Insert Box 2.6 research question into the following title for his research proposal:  
"The impact of research between consumer strategy and the external environment."

Give Box 2.7 research title for his research proposal:  
"The impact of employee engagement, commitment and development, and roles for their performance, following organisational change."

Write Box 2.8 research question to develop the title for his proposal:  
"The effect of 'healthy eating' publicity on snack food purchasing decisions."

The Research Question started with w...  
(Why, What, etc.)

---

**How can your research proposal be structured?**

---

## Research question(s), aim and objectives

The Background section should lead logically into a **statement of your research question(s), aim and research objectives.**

These should leave the reader in no doubt about what your research seeks to achieve. Be careful here to ensure that your objectives are precisely written and will lead to observable outcomes

## Method

The Method will be the longest sections of your proposal.

The Method is designed to answer the question, **'how shall I conduct my research?'**

The Method may be divided into sub-sections that deal with research design, participants, techniques and procedures and ethical considerations.

Please respect the environmental and may be limiting factors

## How can your research proposal be structured?

### Writing your research proposal

to do this? The rationale will also need to address the question, 'why is it worth doing?' This will relate to one of the following types of justification: the application of a theory to a particular context (such as within an organisation); the development of a theory within a research setting; testing a theory within a given context. Your research may propose other such justifications depending on its nature.

This leads to another function of this section: to demonstrate 'how my research relates to what has been done before in this subject area'. In achieving this you will show your knowledge of relevant literature and clarify where your proposal fits into the debate in this literature (Section 3.3). You will also be able to begin to show 'which theory or theories will inform what I am doing and how I will use it or them'. The intention will be not to write a detailed review of the literature but rather to provide an overview of key literature sources from which you will draw and the theory or theories within them. This will not be the same as the critical literature review (Sections 4.2 and 4.3) that you will present in your final project report but the start of the process that leads to it.

### Research question(s), aim and objectives

The Background section should lead logically into a statement of your research question(s), aim and research objectives. These should leave the reader in no doubt about what your research seeks to achieve. Be careful here to ensure that your objectives are precisely written and will lead to observable outcomes (Box 2.7).

### Method

The Background and Method will be the longest sections of your proposal. The Method is designed to answer the question, 'how shall I conduct my research?' The Method may be divided into sub-sections that deal with research design, participants, techniques and procedures and ethical considerations. This final element may need to be dealt with in a discrete section of your research proposal.

Research design is discussed in Chapter 5. It involves you making a number of decisions about, 'what is my research design?' You will need to make a methodological choice between a quantitative, qualitative or mixed methods design. You will also need to select one or more research strategies (e.g. an experiment, a case study, a survey, a Grounded Theory strategy) and determine an appropriate time frame for your project depending on the nature of your research. You will need to describe each of these and justify your choice by the way these elements fit together to form a coherent whole.

How you design your research will affect the type of data you require, where you intend to locate them and from whom you will collect them. Your data may be collected from human participants, as they may be secondary data (Chapter 6) such as from archival research (Section 5.8) or a combination of these. You will therefore need to address the question, 'what type of data do I need?' If you are using secondary data you will need to explain what these are, where they are located, any issues related to access and justify this choice. If you intend to collect data from human participants, you will need to answer, 'who and where are my intended participants?' You may be intending to conduct research in a single organisation or across a number of organisations. You will need to explain and justify the nature of the organisation or organisations and possibly the sector or sectors within which it, or they, operate. Your intended participants may be located within a specific part of an organisation or be drawn from across it. You will need to explain and justify this.

You will also need to explain the nature of your research population and why you chose it. For example, they may be entrepreneurs, managerial employees, non-managerial employees, a particular occupational group, trade union officials or some combination of

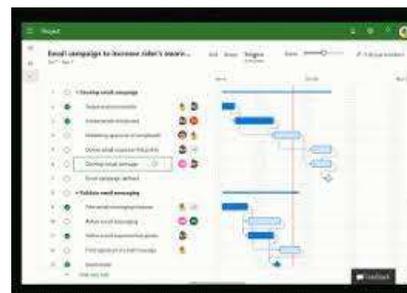
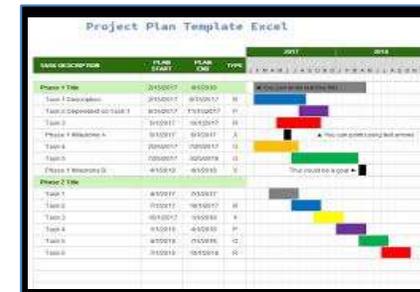
## Resources

Resource considerations may be **categorised as finance, data access and equipment.**

Conducting research costs money. This may include for example: travel, subsistence, help with transcription or, perhaps, postage for questionnaires. Think through the expenses involved and ensure that you can meet them.

## Timescale

-> project plan

TASK DESCRIPTION	PLANNED START	PLANNED END	TYPE	RESOURCES	PREVIOUS TASKS	REMARKS
<b>Phase 1 Time</b>	31/03/2017	01/04/18				
Task 1 (Completed)	31/03/17	01/03/17	FF			
Task 2 (Completed 01/03/17)	01/03/17	15/03/17	FF			
Task 3	15/03/17	01/04/17	FF			
<b>Phase 4 Milestone A</b>	01/03/17	01/03/17	A			This can only be used last arrow
Task 4	20/03/17	15/03/17	FF			
Task 5	05/03/17	05/03/18	FF			
<b>Phase 1 Milestone B</b>	01/03/17	01/03/18	M			This can only be used last arrow
<b>Phase 2 Time</b>	01/01/17	01/01/17				
Task 6	01/01/17	01/01/17	FF			
Task 7	01/01/17	01/01/18	FF			
Task 8	01/01/17	01/01/18	FF			
Task 9	01/01/17	01/01/18	FF			
Task 10	01/01/18	01/01/18	FF			