

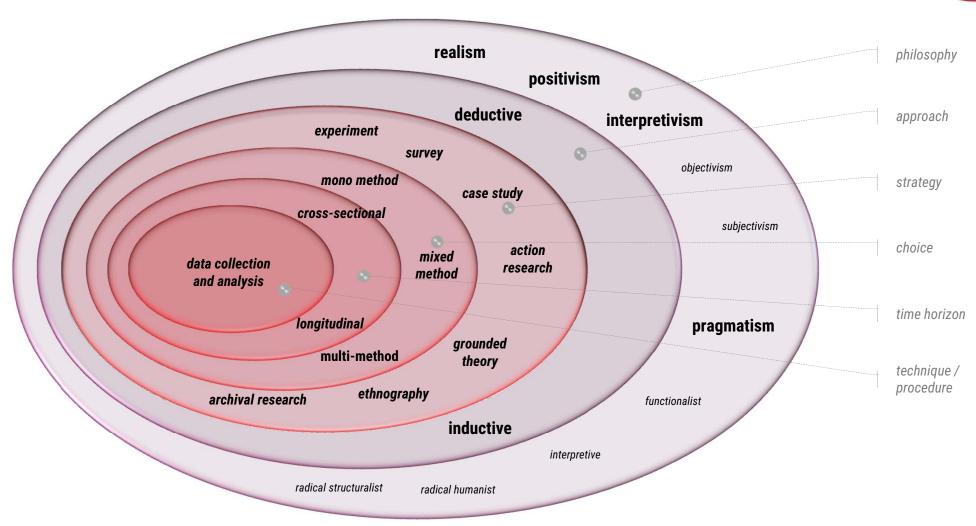
## **Applying Saunders Research Onion**





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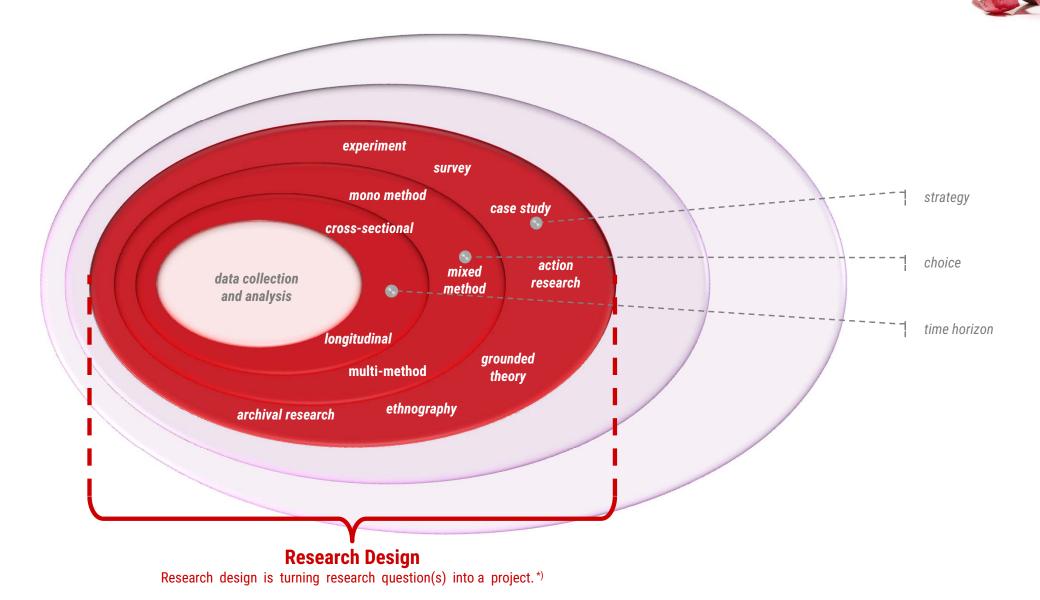
#### **Saunders Research Onion**



https://is.vsfs.cz/el/6410/leto2014/BA\_BSeBM/um/Research\_Methods\_for\_Business\_Students\_\_5th\_Edition.pdf, page 108 http://writepass.com/journal/wp-content/uploads/2012/06/Research-Onion.jpg



## **Research Design – our Starting Point to Understand the Onion**



\*) Colin Robson, Real World Research, 2011, p.79



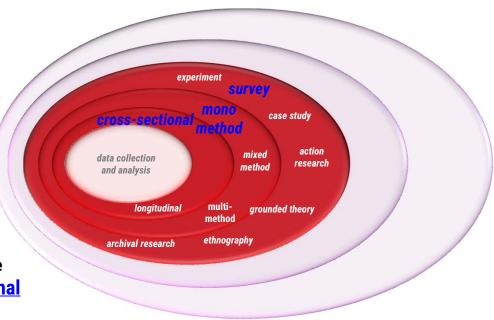
#### **Research Design**

- turning research question(s) into a project

#### example:

# We want to proof a model for a relationship in a business environment.

- we decide to use questionnaires in a <u>survey</u>
- if we use structured questionnaires only to collect quantitative data (numbers: who, what, where), it is a mono method
- if we have, due to time constrains, the possibility to collect the data in a given snap shot (of time), we call this <u>cross-sectional</u> (we have to ensure that the samples are representative!)





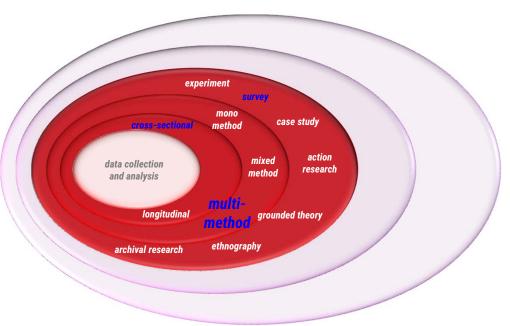
#### **Research Design**

- turning research question(s) into a project

#### example:

# We want to proof a model for a relationship in a business environment.

- we decide to use questionnaires and interviews in a <u>survey</u>
- if we use structured questionnaires to collect quantitative data (numbers: who, what, where), and in addition structured interviews to collect furthermore quantitative data (numbers: who, what, where) it is a multi-method
- if we have, due to time constrains, the possibility to collect the data in a given snap shot (of time), we call this <u>cross-sectional</u> (we have to ensure that the samples are representative!)





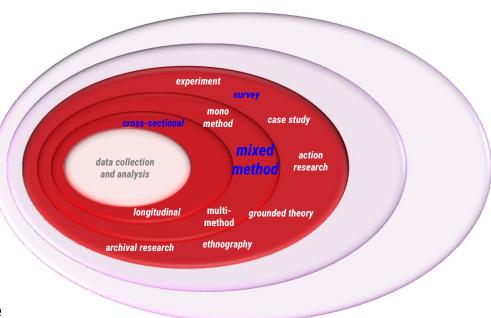
#### **Research Design**

- turning research question(s) into a project

#### example:

# We want to proof a model for a relationship in a business environment.

- we decide to use questionnaires and interviews in a <u>survey</u>
- if we use structured questionnaires to collect quantitative data (numbers: who, what, where), and in addition in-depth interviews to collect qualitative data (words, pictures, ...) it is a <u>mixed method</u>
- if we have, due to time constrains, the possibility to collect the data in a given snap shot (of time), we call this <u>cross-sectional</u> (we have to ensure that the samples are representative!)

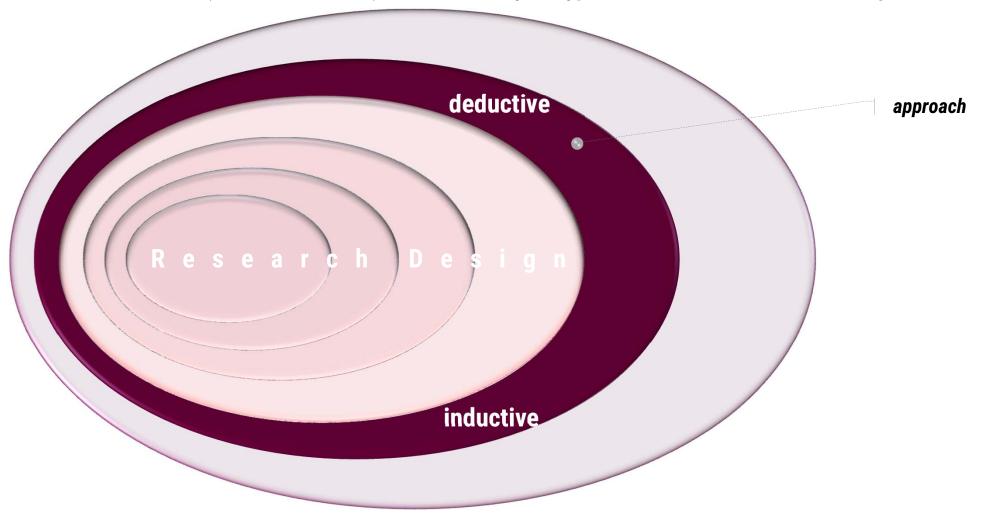






### **Research Approach**

- Do we use the data (outcome from RD) to test a theory or hypothesis? -> deductive reasoning



- Do we use the data (outcome from RD) to <u>build</u> a theory or hypothesis? -> inductive reasoning



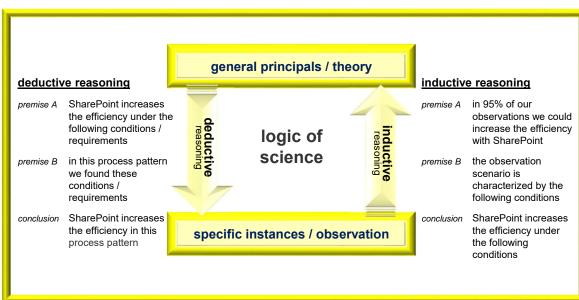
## **Research Approach**

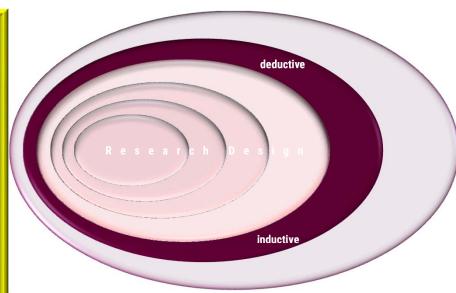


#### example:

#### We want to proof a model for a relationship in a business environment.

in other words: we want to test a model / theory / hypothesis -> deductive approach





or:

We want to formulate a model for a relationship in a business environment.

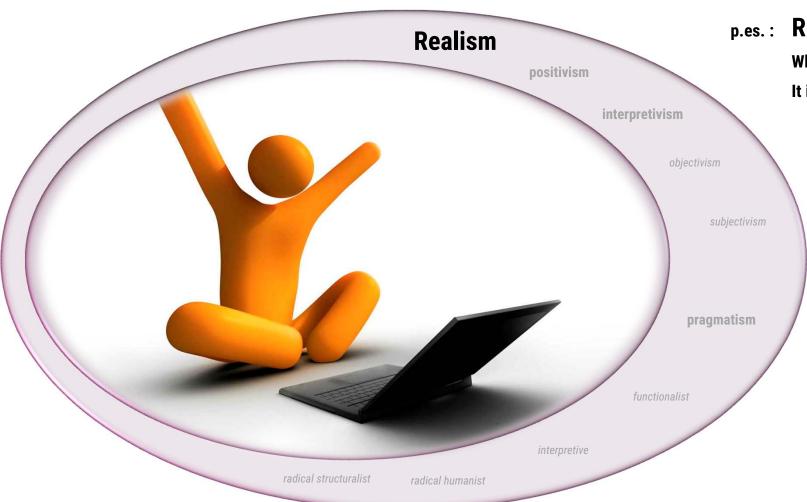
in other words: we want to build a model / theory / hypothesis -> inductive approach

or:

We want to formulate and proof a model for a relationship in a business environment.

• we will combine the inductive and deductive reasoning





Realism

What I see is the reality!

It is independent of my mind.

It has a huge importance in the natural science.



"I can calculate the motion of heavenly bodies, but not the madness of people."
-- Isaac Newton

https://is.vsfs.cz/el/6410/leto2014/BA\_BSeBM/um/Research\_Methods\_for\_Business\_Students\_\_5th\_Edition.pdf, page 114 https://en.wikipedia.org/wiki/Scientific\_realism



### Philosophy: Assumption about the Way, we See the World



#### p.es.: Positivism

New knowledge derives from positive interpretation of results from experiences (experiments).

Our target audience will accept the research results only, as long as they are repeatable and visible facts.

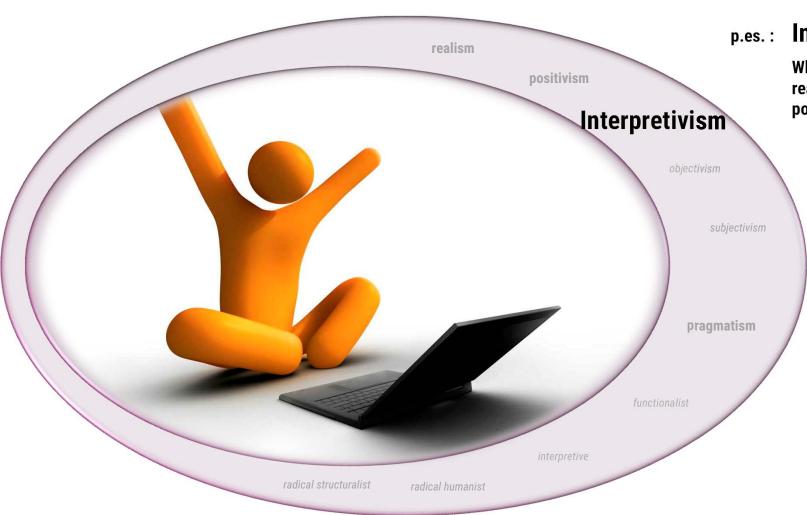
"working with an observable social reality and that the end product of such research can be law-like generalisations similar to those produced by the physical and natural scientists"

If we expect that our target audience will accept the research results only, as long as they are repeatable and visible, then we need a highly structured data collection, based on large samples.

https://is.vsfs.cz/el/6410/leto2014/BA\_BSeBM/um/Research\_Methods\_for\_Business\_Students\_\_5th\_Edition.pdf, page 113 https://en.wikipedia.org/wiki/Positivism







#### Interpretivism

While the positivism accepts only ONE reality and focus on the only one possible description/explanation,

the interpretivist accepts that the research result is to understand and to interpret it according a specific context.

If our target audience will interpret our findings, we have to understand the interpretation of our findings in our field of investigation.

Therefore we need to understand the totality of a situation.

Qualitative research helps us to understand better a specific context.

https://is.vsfs.cz/el/6410/leto2014/BA\_BSeBM/um/Research\_Methods\_for\_Business\_Students\_\_5th\_Edition.pdf, page 115 https://en.wikipedia.org/wiki/Qualitative\_research



### Philosophy: Assumption about the Way, we See the World



#### p.es.: Pragmatism

If the target audience doesn't care about the philosophy (realism or positivism or interpretivism), we are free to select the philosophy and methodology according the research question(s).

https://is.vsfs.cz/el/6410/leto2014/BA\_BSeBM/um/Research\_Methods\_for\_Business\_Students\_\_5th\_Edition.pdf, page 109 https://en.wikipedia.org/wiki/Pragmatism



#### philosophy of science internal Cartwright entity realism **Pythagoras** realism Tegmark MUH nce correspondence Russell Hacking Poincaré Devitt Putnam pessimistic Pragmatism meta-induction ESR Popper. Coherence Peirce Kuhn, Ladyman Carnap OSR Positivism French NOA realism anti-realism



#### **Naive Realism**

Votsis

The world I see is real. What are you all arguing about?

#### Structural Realism

Maudlin

Dennett<sup>4</sup>

Sellars Worrall

Rosenberg'

Science has identified real patterns, relationships, and structures (at least within a regime) in nature.

Quine

#### Instrumentalism

Duhem

Dewey

raassen Fine

Laudań

Theoretical concepts may have use in predicting observations, but we have no ontological commitments to them.

#### Scientific Realism

Psillos Boyd

Science makes real progress in describing real features of the world.

#### Constructive Empiricism

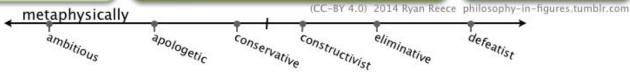
Science aims to give us theories which are empirically adequate, but does not justify metaphysical claims about reality.

#### Relativism

underdetermination

Social constructivism. Epistemological anarchism.

Feyerabend



http://positivists.org/blog/wp-content/uploads/2015/05/Ryan-Reece-2014-07-18-scientific-realism-vs-anti-realism.png





### Ontology

= believes what reality is ... (p.es. Realism / Positivist <-> Relativism / Interpretivist)



### **Epistemology**

= relationship, the researcher has to the research ... (p.es. how do he discover new things)

=> objective measurement (outsiders view)

=> find out what truth means to the target audience (inside view)

### **Axiology**

= philosophical study of value (p.es. Ethics <-> Aesthetics)

=> Is it beauty, the way it is?

=> Is it right/wrong, the way it is?



### **Final Example**

# swissuniversities

# We have to formulate a model for a relationship in a business environment.

- in order to collect data ...
- we decide to use questionnaires and interviews in a <u>survey</u>
- we use structured questionnaires to collect quantitative data (numbers: who, what, where), and in addition in-depth interviews to collect qualitative data (words, pictures, ...) -> mixed method
- we have, due to time constrains, the possibility to collect the data in a given snap shot (of time) -> <u>cross-sectional</u>
- analyzing the data we formulate a model -> inductive
- knowing that our target audience will interpret the model according a specific business environment, our philosophy is interpretivism

