Assignment: What is empirical research?

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|  | **Unit 1:** In this assignment, you will practice with all aspects of the wheel of science, you will also familiarize yourself with the basic aspects of decision making and with the relationship between decision making and research, | | | | |
|  | [The Empirical Cycle](https://vimeo.com/user29453510/review/135972243/e8d4634f81)  [Decision making and Research Questions](https://vimeo.com/user29453510/review/132533341/7da431adc5)  [Confirmation bias](https://player.vimeo.com/external/233436750.hd.mp4?s=f9ce45b9a4496b9c6fa79672ed405936366d2e62&profile_id=175) |  | Research question; Design and (cycle of) decision-making; Need and problem analysis; Ex ante evaluation; Process evaluation; Ex post evaluation (effect / impact research); Wheel of science / empirical cycle; confirmation bias | | |
|  | Henk van der Kolk (2016) Decision making & research;  Babbie Ch. 1 p.5-14 |  | Form groups of 4 (max), face each other. |  | 90 minutes |
|  | Read this assignment carefully and answer the questions before coming to class.  Bring either a print or digital version of your answers to the lecture. In the lecture, we will discuss some answers, using your input. | | | | |

1. Research is often (but not always) done in the context of decision making. Select a topic about some social problem, which you really care about. For example, “smoking among teenagers’. Write the topic down here.

Crime, the level of crime

1. A topic is often about a ‘problem’, ‘challenge’ or ‘need’. Write down at least three different questions about your problem. Identify whether it is an empirical question or not and if so, whether it is descriptive or causal.

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| Question | Empirical? | If yes: descriptive or causal? |
| Should the government allow all citizens in the country to keep and bear arms? | No, normative |  |
| What are ‘arms’? What do we consider ‘crimes’? | No, conceptual |  |
| Is the level of gun control affecting **the level of crime** in a country? | Yes | Causal |
| To what extent did the level of crime in The Netherlands increase between 2000 and 2018 | Yes | Descriptive |

1. In the context of your topic/problem, solutions can be identified, potentially solving (parts) of the problem. Write down at least three (partial) solutions to the problem or need. It would be nice if the solutions are ‘alternatives’ (attempts to solve the same problem).

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|  | Solution |
| 1 | Giving people the right to keep and bear arms |
| 2 | Increase the level of punishment for crimes |
| 3 | Increase the size of the police force |

1. Pick one of the selected solutions.

Increase the size of the police force in 2008.

1. Checking whether the solution solved the problem, at least partially, often starts with some descriptive question and proceeds with a causal question (make sure you understand this). Identify these two questions in the context of one of the solutions suggested in Q 3.

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| Type | Question |
| Descriptive | To what extent did the level of crime in The Netherlands change between 2000 and 2018? (More specifically, did level of crime in The Netherlands decrease after the intro of a larger police force in 2008? |
| Causal | To what extent was the decrease of the police force in 2008 causing a decrease in the level of crime in The Netherlands? |

1. Answering empirical questions is often presented as a series of ‘steps’ (often presented in an empirical cycle). Write down these steps here, starting with the research question …
2. Write down how you would answer the causal question identified under Q 5, using the steps identified in Q 6.
3. We often assume that we start with ‘thinking’ (for example about possible causes of some problem).
4. How is this called, starting with thinking in research and building the rest of the research on what we think?

deduction

1. Sometimes it is argued, we better start with ‘observing’. How is this research strategy called?

induction

1. Mention at least two different reasons to start with observation instead of thinking.

- because we do not have a CLUE where to start with our thinking

- because we have so many data, why should we start with thinking, better let the computer find out (the ‘big data challenge) (I am NOT arguing the argument is correct ☺)

1. Explain the concept of confirmation bias and give a personal example of confirmation bias.

**Confirmation bias** is the tendency to search for, interpret, favor, and recall information in a way that confirms one's preexisting beliefs or hypotheses. For example: despite all the mistakes he is making, the fact that he is cheating and the lousy things he is doing, I still think my friend is one of the best people in the world ….

One of the aims of research methodology is avoiding confirmation bias. It is about the procedure to systematically answer (empirical) questions.