



National Monitoring of the Education System Through Indicators

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Outline

- Introduction
- Indicators in the Swiss Education Report
- Indicators and Indicator-Systems
- Indicators for ESD
- Conclusion

Introduction

The rationale for evidence based policy:

- Evidence based policy decisions are harder to reverse by political opponents or subsequent governments
- Ministers are in charge of important research funds, they have administrative information and therefore have a lead in evidence
- Trial and error politics are simply too costly

Indicators in the Swiss Education Report

- Initial idea: Description of the entire educational system with a set of (a dozen) indicators
- A limited set of indicators would not be able to describe the entire education system in all its complexity
- “You show what you have”?

What is an indicator?

- Indicators should go beyond the purely informational dimension of statistics
- They are in a causal relationship to the indicated subject and describe processes or performances in relation to a “goal”
(e.g. Schedler, 2004)
- Quantitative or qualitative information

Fact 1

- A benchmark for the chosen indicator is needed
- Go beyond the purely informational dimension of statistics -> descriptors
- Possibilities: a) absolut, b) reference groups, c) self- referential
- For example: PISA

Fact 2

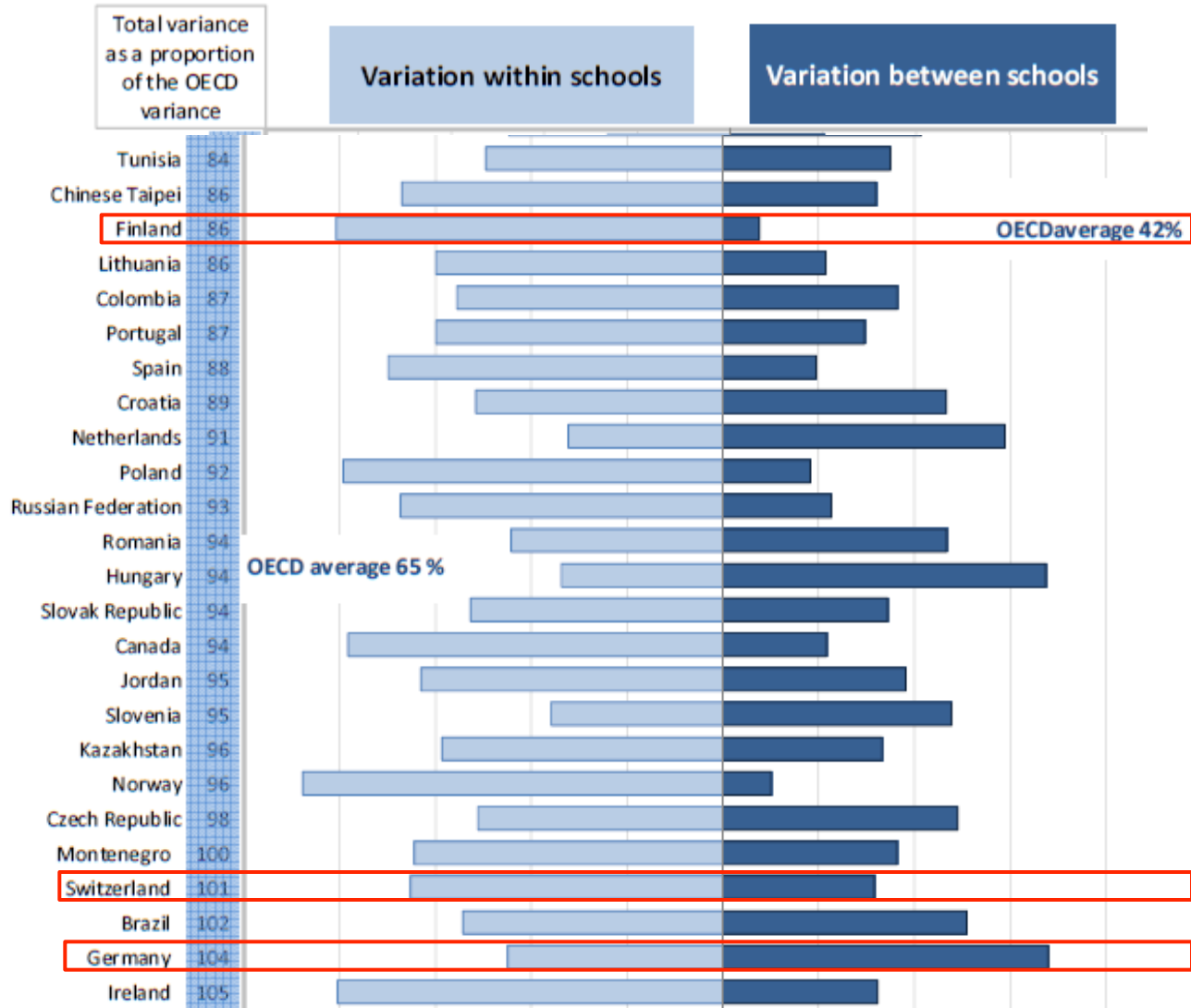
- Indicator's relevance must be theoretically and empirically validated
- Correlations are often interpreted as causalities. Proven causal relations are rare, reversed causalities and irrelevant correlations are overlooked
- Context information & research needed
- For example: Class size

Fact 3

- At best indicators show a need for action

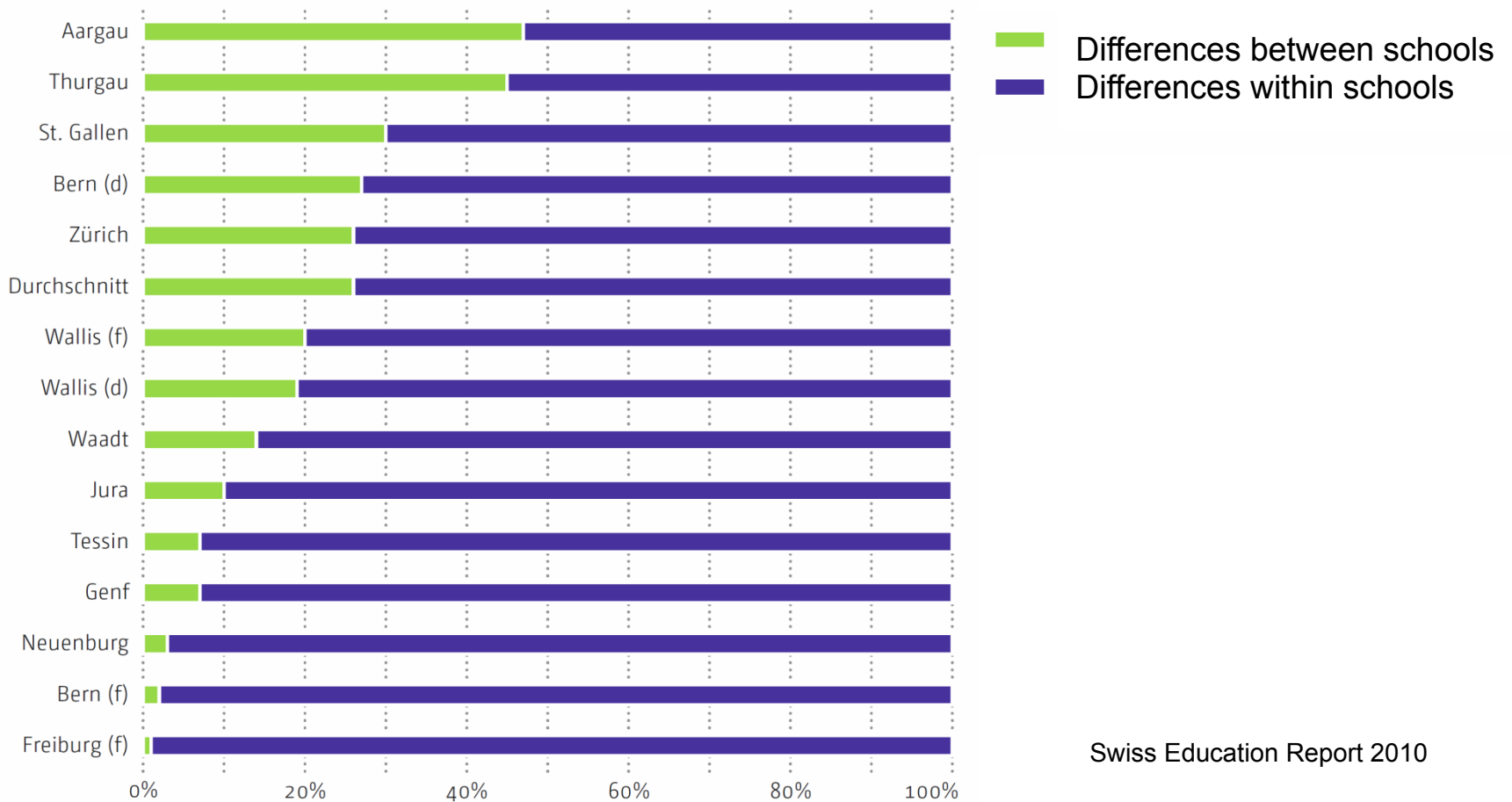
Fact 4

- A single indicator is generally unable to present a full picture of the item in question
- Indicator system
- Problem: Interrelationship
 - Inputs are complements
 - Inputs compete
 - Inputs are neutral



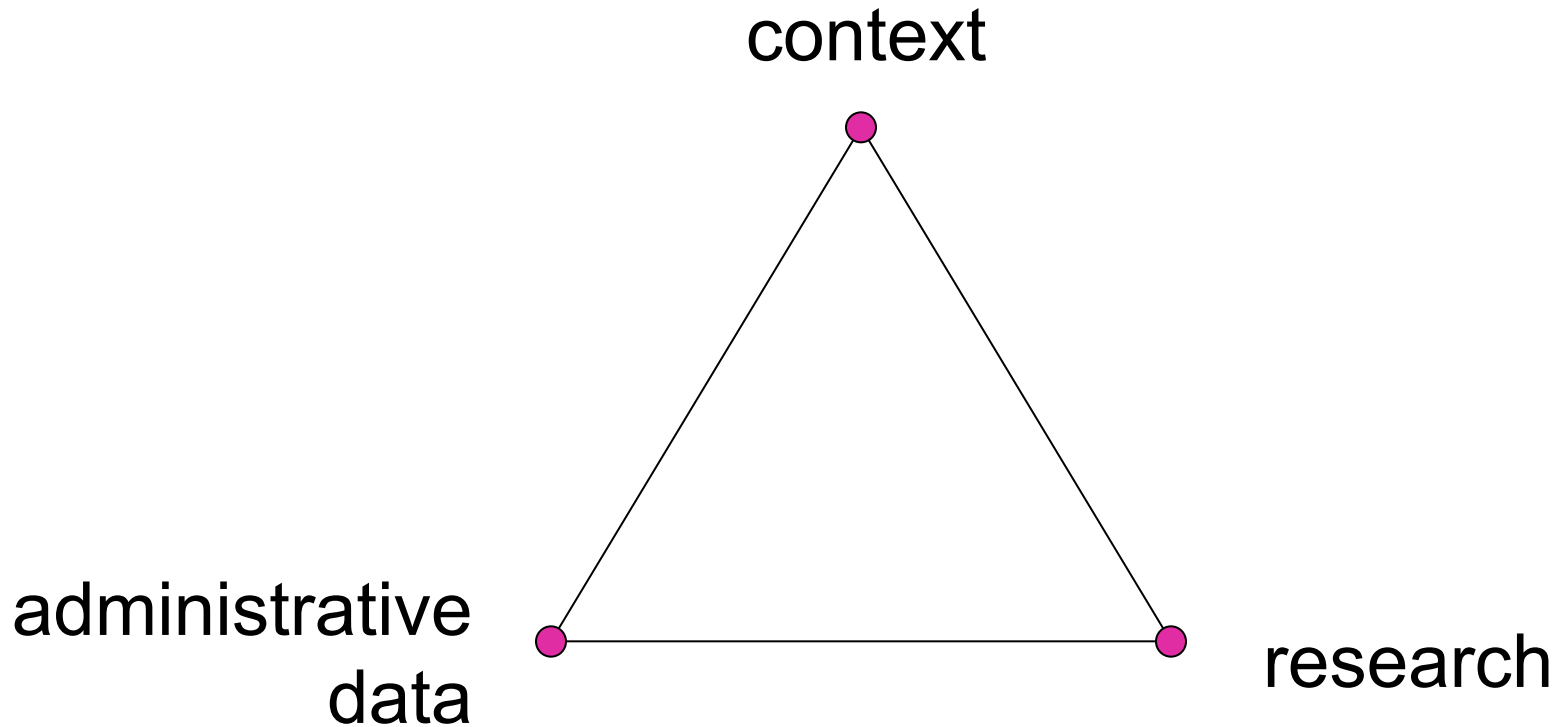
OECD PISA 2009

Performance differences within and between schools



Swiss Education Report 2010

Performance differences within and between schools



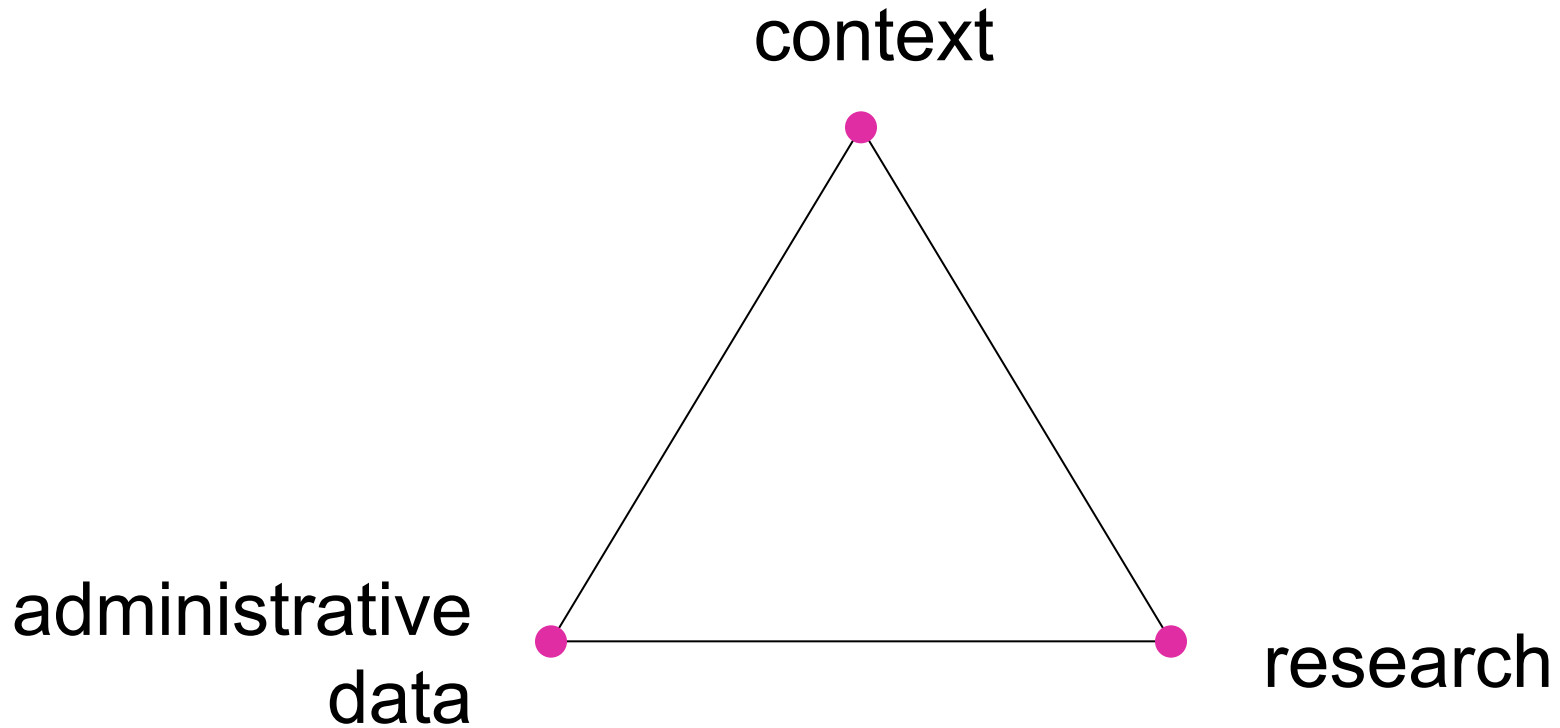
Indicators for ESD

- Fact 1: Benchmark
- Fact 2: Indicator's relevance must be theoretically and empirically validated

Indicators for ESD

- Fact 3: Show need for action
- Fact 4: Interrelationship

Indicators for ESD



Conclusion

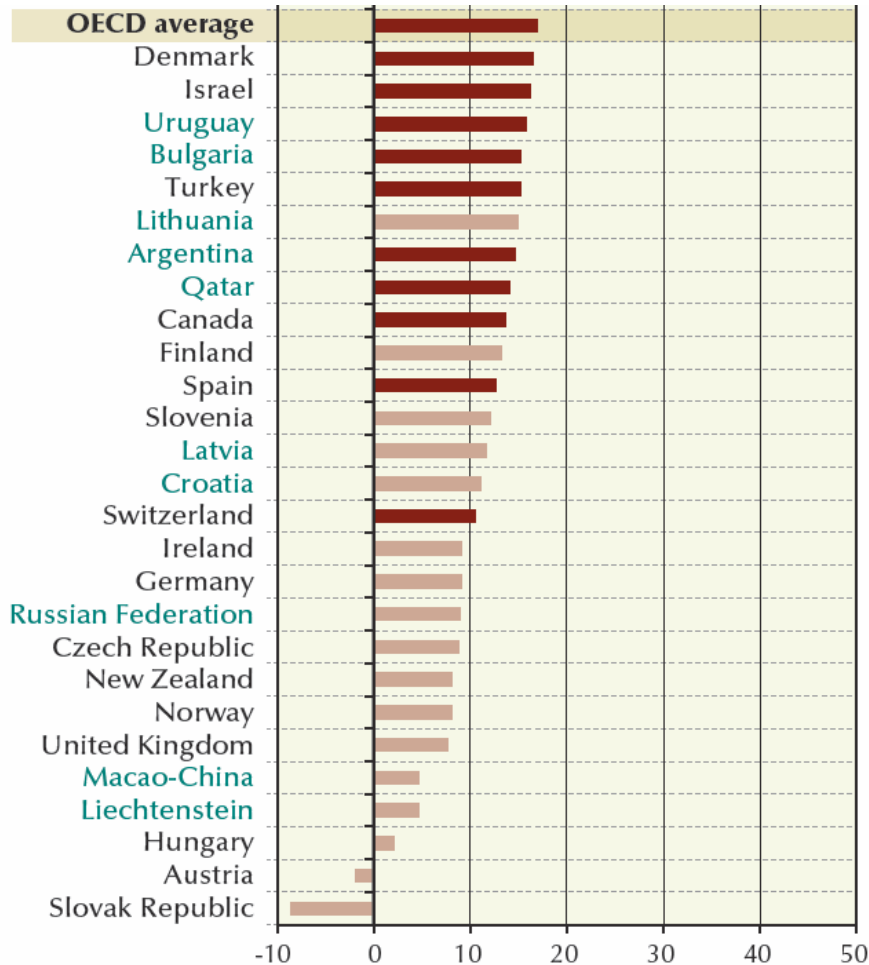
- Often administrative data is not available
-> to collect data is expensive
- Therefore: Need for research on a possible causal relationship and about context factors
- For example: small experiments

Thank you for your attention !

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Appendix

Example Benchmark, group



Difference in PISA score points

Students who learn about the extinction of plants and animals at school do better in PISA environmental science test

OECD PISA 2009

Example Benchmark, absolut

Percentage of students at each proficiency level on the environmental science performance scale

