

# How Instruction Affects Students' Beliefs



**Why do students process information differently?**



**Disconfirmation model** (Edwards & Smith, 1996): students' prior belief can influence how much they scrutinize a written argument



Arguments inconsistent with belief: scrutinize more, attempts to refute, undermine, or disconfirm argument



Arguments consistent with belief: scrutinize less, more likely to accept the argument



**What can we do about this?**



Give more specific instruction to students when giving reading tasks with texts that have arguments consistent/inconsistent with their beliefs.

**Task instructions affect students' topic beliefs**

## How do we know this?

Quantitative and qualitative research with 86 grade 10 (14-15 year old) students showed:

- Participants in the control group did not change their beliefs and did not use belief-inconsistent information
- Participants who received additional instruction showed change in beliefs and used belief inconsistent information for their justifications

**Whether students' topic belief become stronger or weaker after they read relies on which kind of reader they are.**

**Reader with belief-protection goals: rebut belief-inconsistent information with prior knowledge**

**Reader with belief-reflection goals: update their beliefs with belief-inconsistent information**

Further research is needed to look into different reader types.