

How do 15-year students in the Netherlands perceive...?

Survey-research Interviews

- Psychological distance
- Predictors of flood-risk perception
- Predictors of climate-change risk perception

- Salience
- Mental models
- Reasoning

Advantages
Disadvantages

Flood-risk perception:
“Myth of dry feet”

Advantages
Disadvantages



Part 2

How do you get 15-year-old students to think about their beliefs with respect to ...?

- flooding
- sea-level rise

Theoretical background interventions

It is sobering to contemplate how elusive meaning is, due to its dependence upon affect.

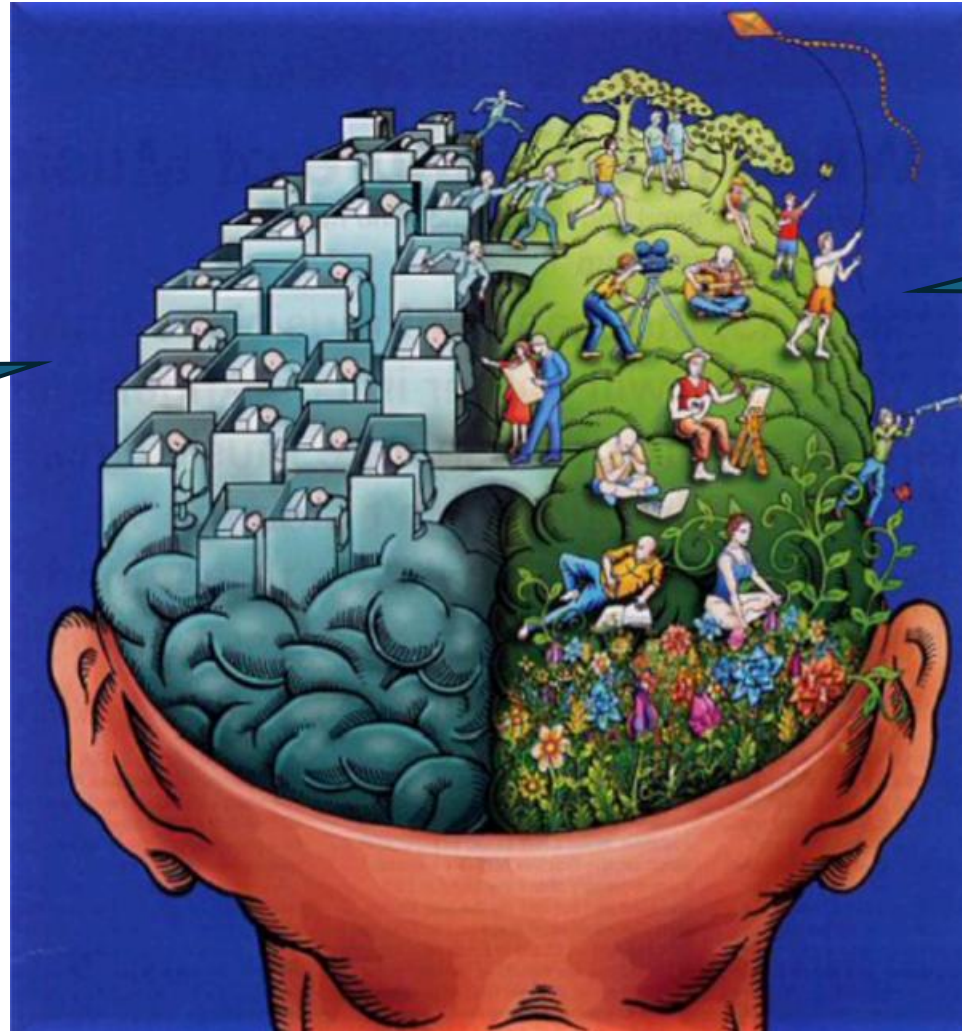
(Paul Slovic, 2004)

“how do we ...
apply *reason* to temper
the strong emotions
engendered by some
risk events?”

“how do we ...
infuse needed ‘doses of
feeling’ into circumstances
where lack of experience
may otherwise leave us too
‘coldly rational’?”

Theoretical background interventions

Analytical
information
processing



Experiential
information
processing

Theoretical background interventions

“Explanations and judgements are not constructed within individual minds but in the ‘unceasing babble’, the permanent dialogue that people have with each other and with institutions”
(Joffe, 2003)

Imagination exercises help students make concrete what they cannot immediately see around them. (De Leur, 2026)

Theoretical background interventions

Conventional programs In education	Intervention programs -flood-risk -sea-level rise
Knowledge and understanding	Affecting beliefs and attitudes
Beliefs and attitudes as by-product	Knowledge and understanding as a means
Teacher-directed parts	Teacher and student-directed parts

Research design

A Flood-risk education program Improving flood-risk perception of 15-year old students	B Engaging youth to imagine life with rising sea-levels
Extensive formative evaluation with teachers	Limited formative evaluation with teachers
Pre/post-tests among students	Pre/post-tests among students
Intervention and control group	Formative evaluation with students and parents

Design-principles flood-risk intervention

A Flood-risk education program improving flood-risk perception of 15-year old students (*7 lessons*)

B Engaging youth to imagine life with rising sea-levels (*8 lessons*)

Affect

Geographical contents

‘Fear appeal’

Availability

Imagination

Blended learning

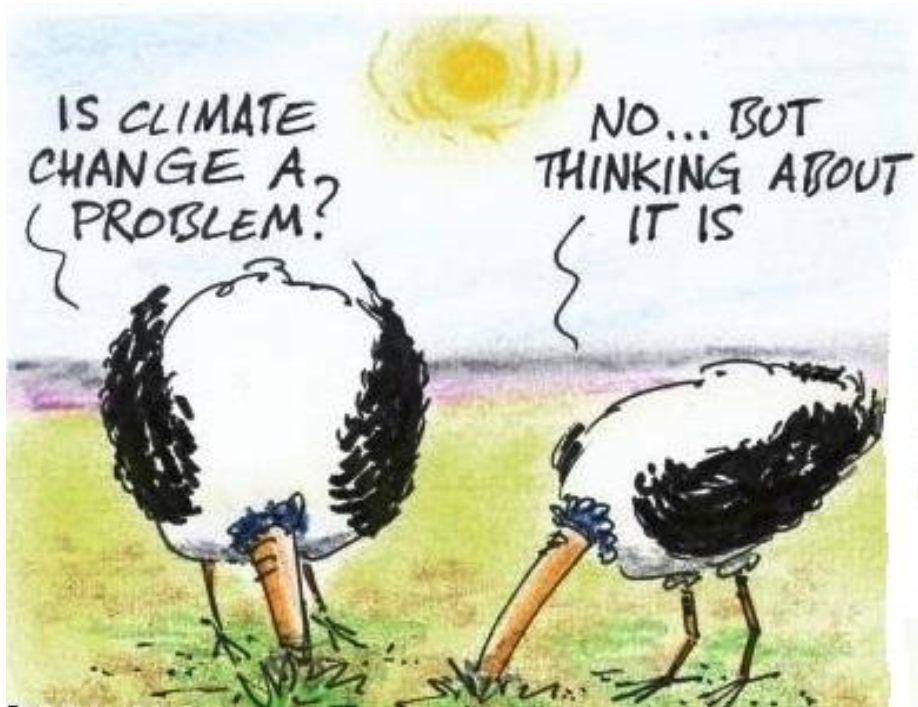
Dialogue

The surroundings of the school

The intervention: to what extent student's risk perception and preparedness intentions are affected?

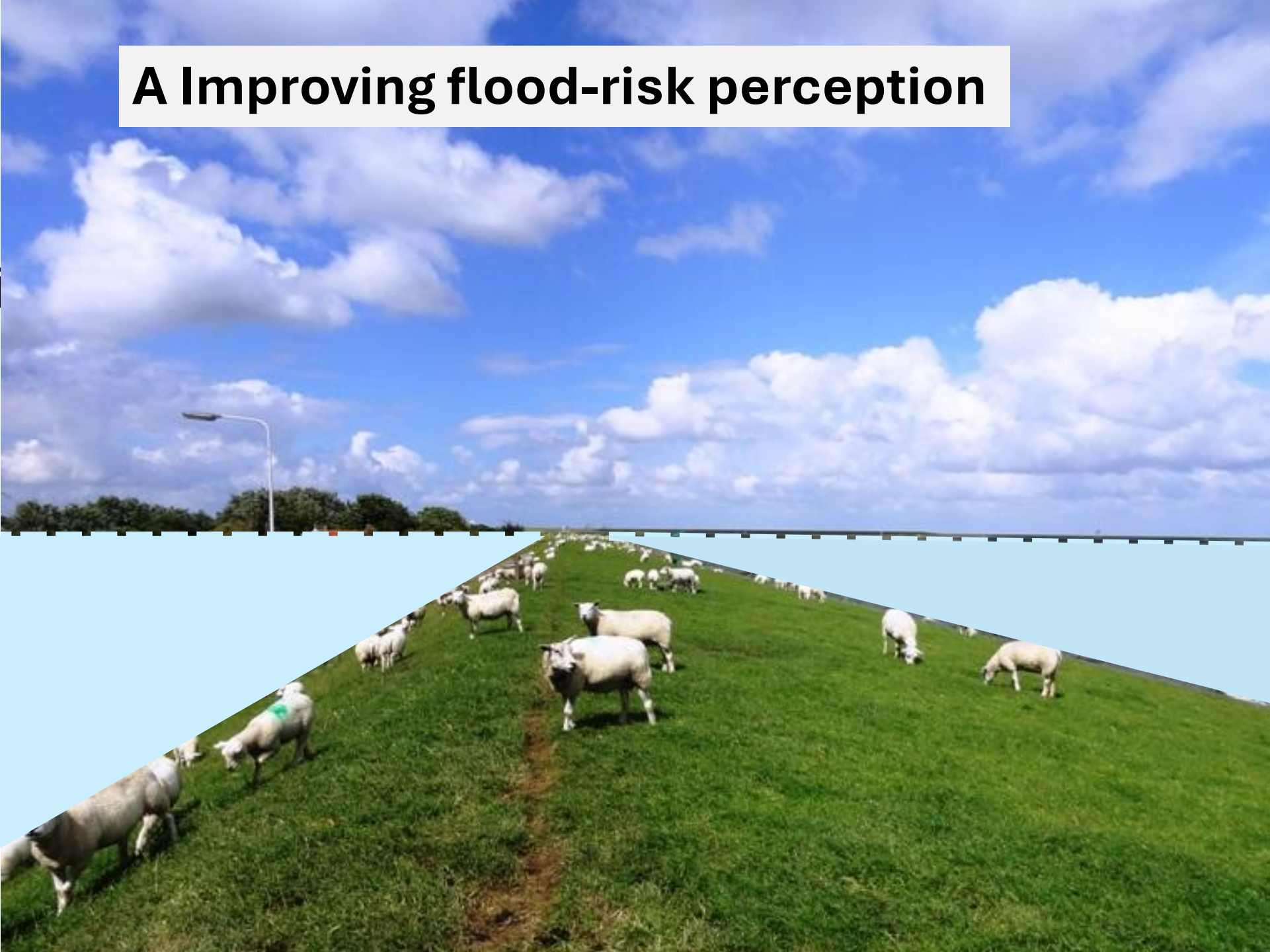
Challenge

problem awareness < > future perspective

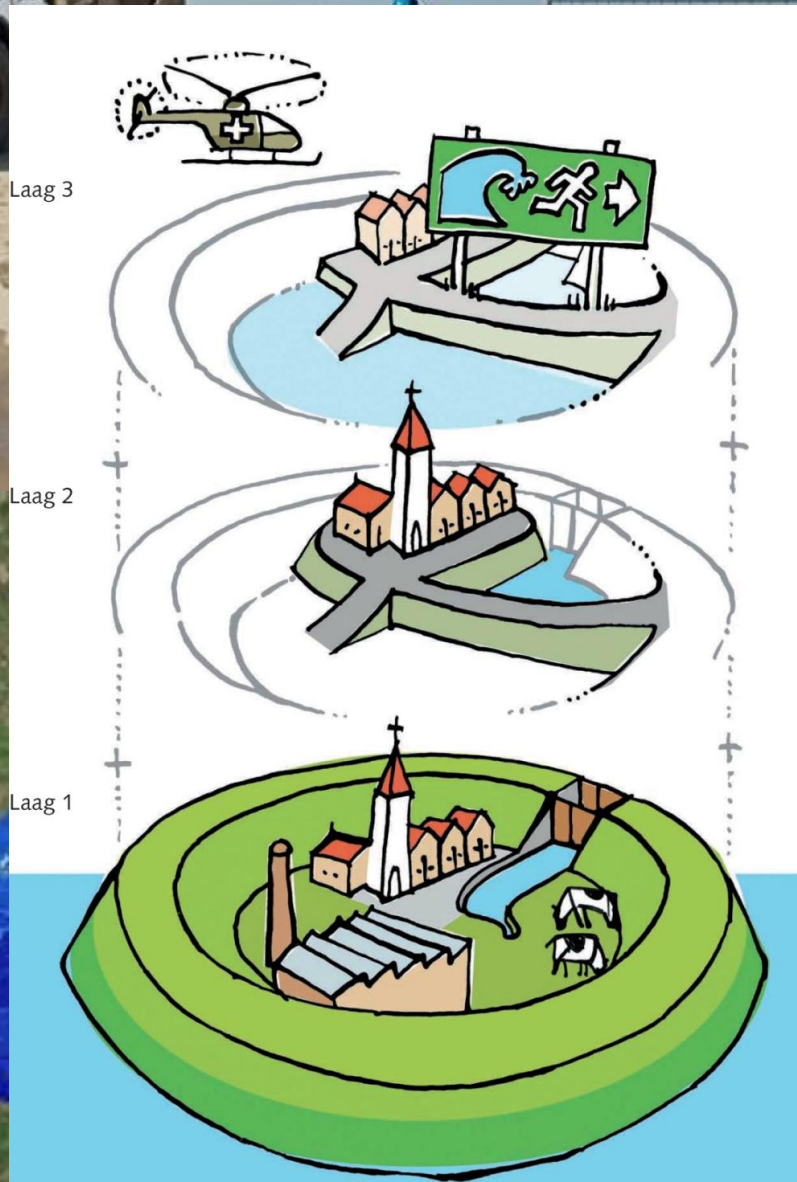


A Improving flood-risk perception

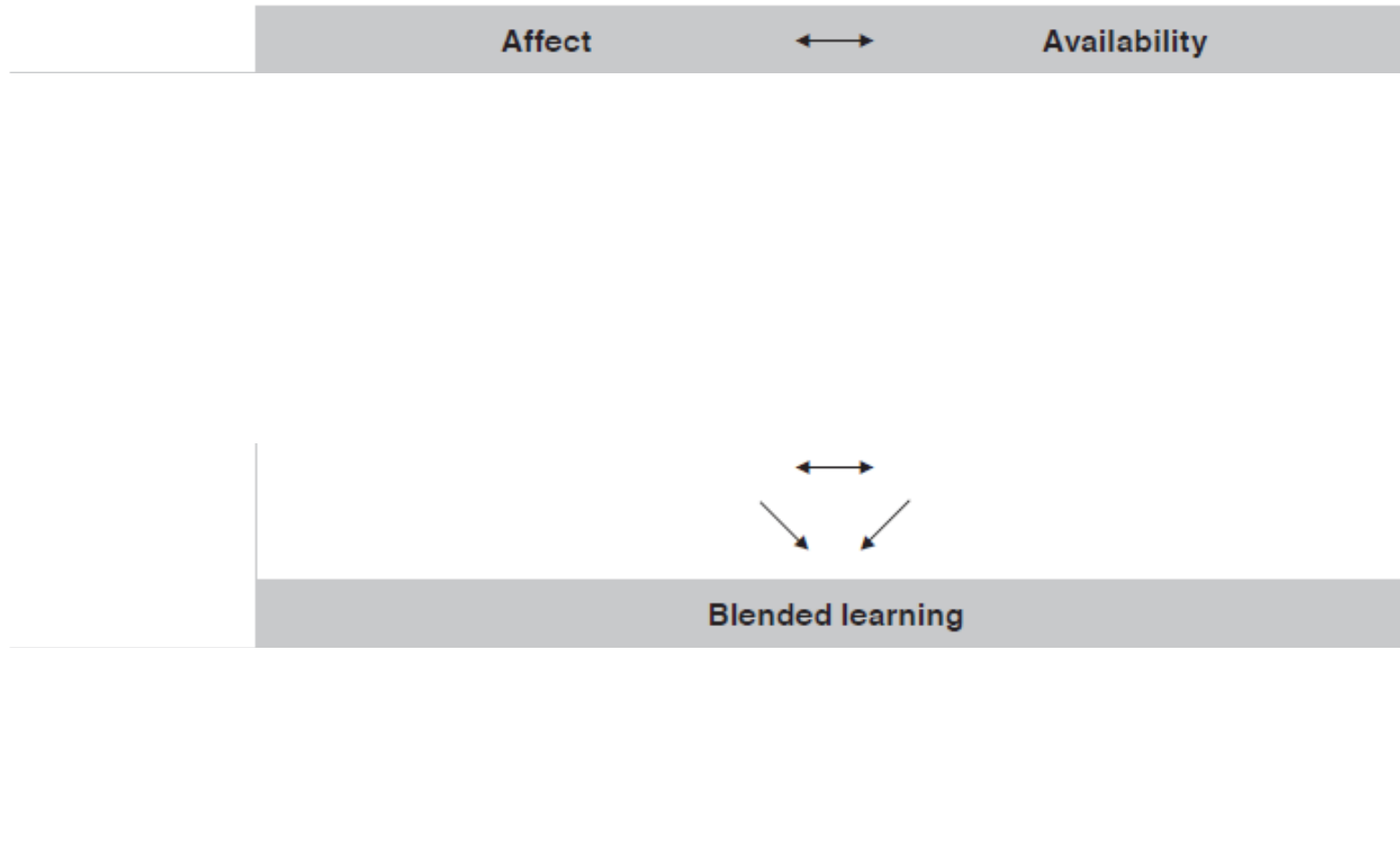
- Dijk



A Improving flood-risk perception



Design-principles flood-risk education program



Effects Flood-risk education program

The extent to which students perceive

hypothesis

result

Personal flood exposure	▲	▲
Flood consequences	▲	▲
Trust in water safety	=	=
Fear/concern while thinking of flood risk	=	=
Preparedness intentions	▲	=
Subjective knowledge about preparedness (self-efficacy)	▲	▲

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Design-principles sea-level intervention

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Affect	Geographical contents
Availability	Imagination
Blended learning	Dialogue

**The surroundings
of the school**