EFFECTIVENESS OF A COPING FLEXIBILITY TRAINING FOR MILITARY STUDENTS

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TNO innovation for life

CONTENT

1. **Objective and approach**
2. **Background Training Program**

3. Experimental Study

Research (*2012-2015*)

Objective

To develop and test a training program that can enhance coping flexibility within the military

Target audience

- Junior non-commissioned officers (sgt)
- Royal Military School (18)
- Platoons:
  - Infantry
  - Logistics, Medical, Technical

Approach

- Field experiment

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Approach

State of the art Interventions

Determinants

2012 2013 2014 2015

PROJECT DEVELOPING

Design of intervention #1

Q3

Pilot

evaluation

Redesign intervention

Field experiment

validation

Final Design

PROJECT TESTING

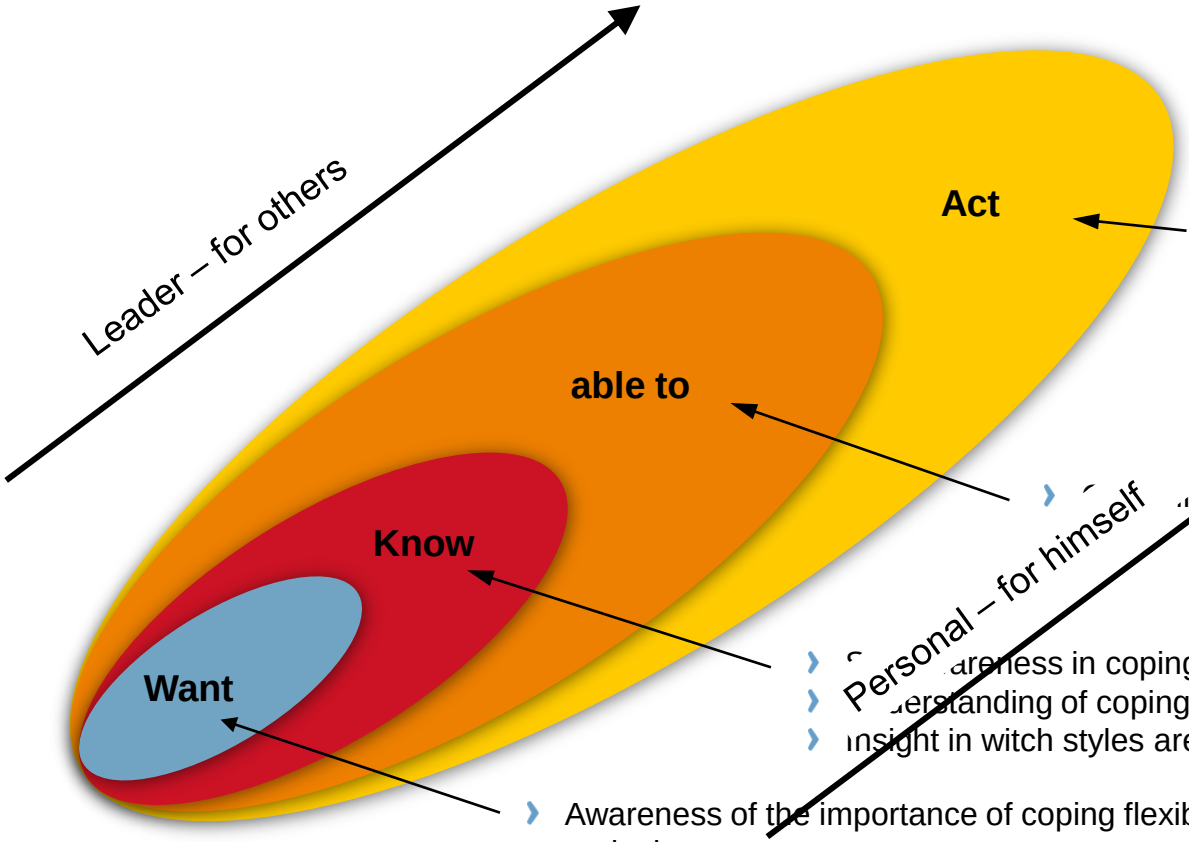
Evaluation

Evaluation

Validation

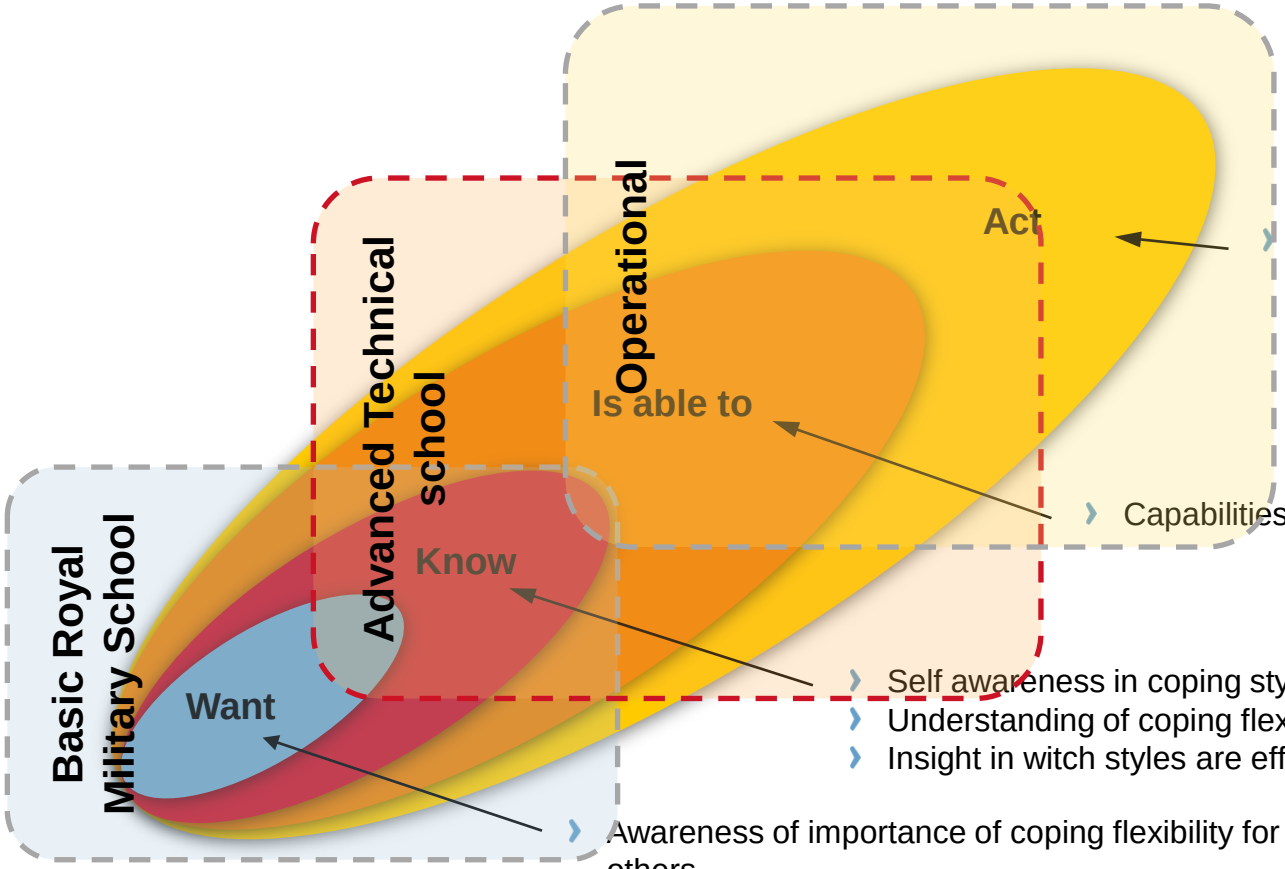
Resilience Monitor

LEARNING GOALS FOR COPING FLEXIBILITY

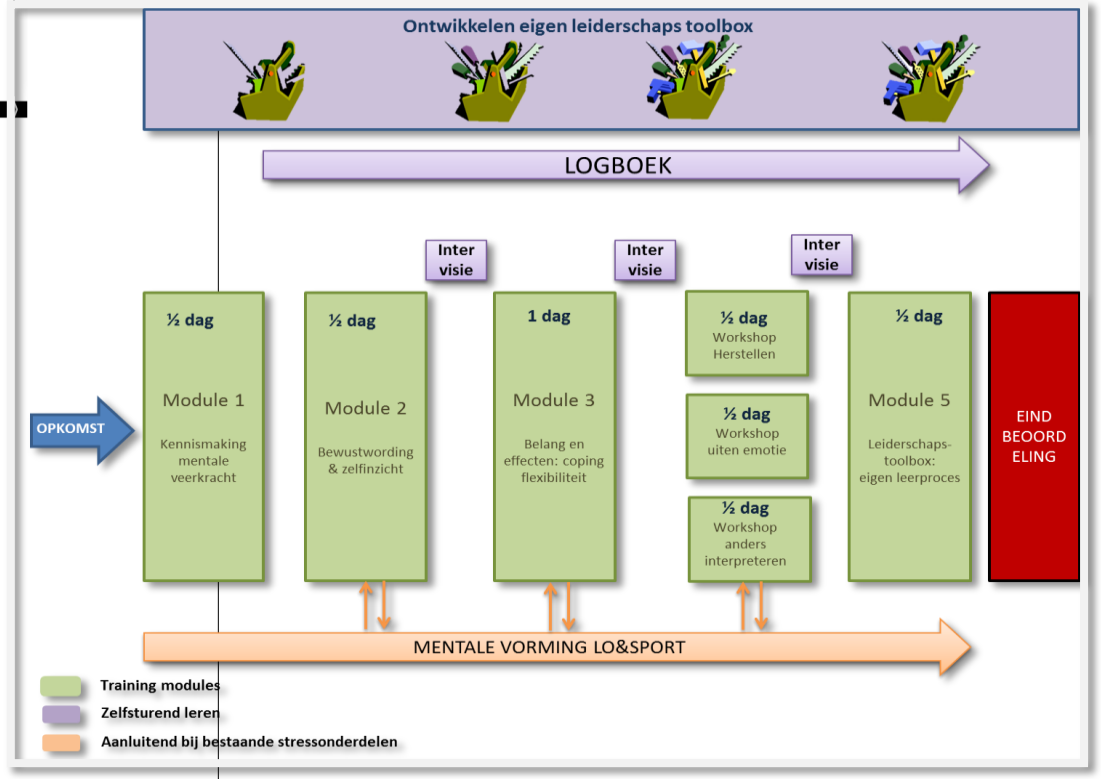


- Flexible according to the situational demands
- ...ities to use different styles
- ...areness in coping style
- ...erstanding of coping flexibility
- ...nsight in witch styles are effective in which situation
- Awareness of the importance of coping flexibility for oneself and others

LEARNING GOALS FOR COPING FLEXIBILITY



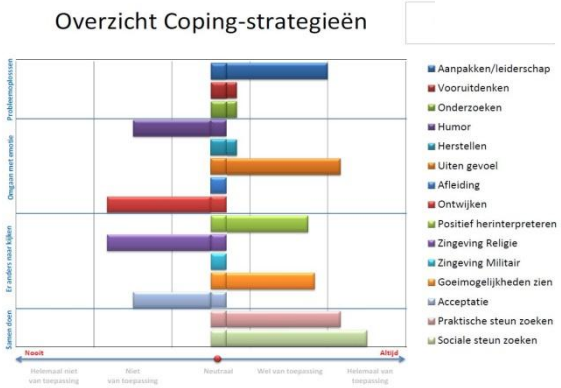
- Flexible according to the situational demands
- Capabilities to use different styles
- Self awareness in coping style
- Understanding of coping flexibility
- Insight in witch styles are effective in which situation
- Awareness of importance of coping flexibility for oneself and others



- 5 Modules / 4-8 hours / over period of 18 weeks
- Self learning exercises
- Integration with current Mentex
- Final assessment

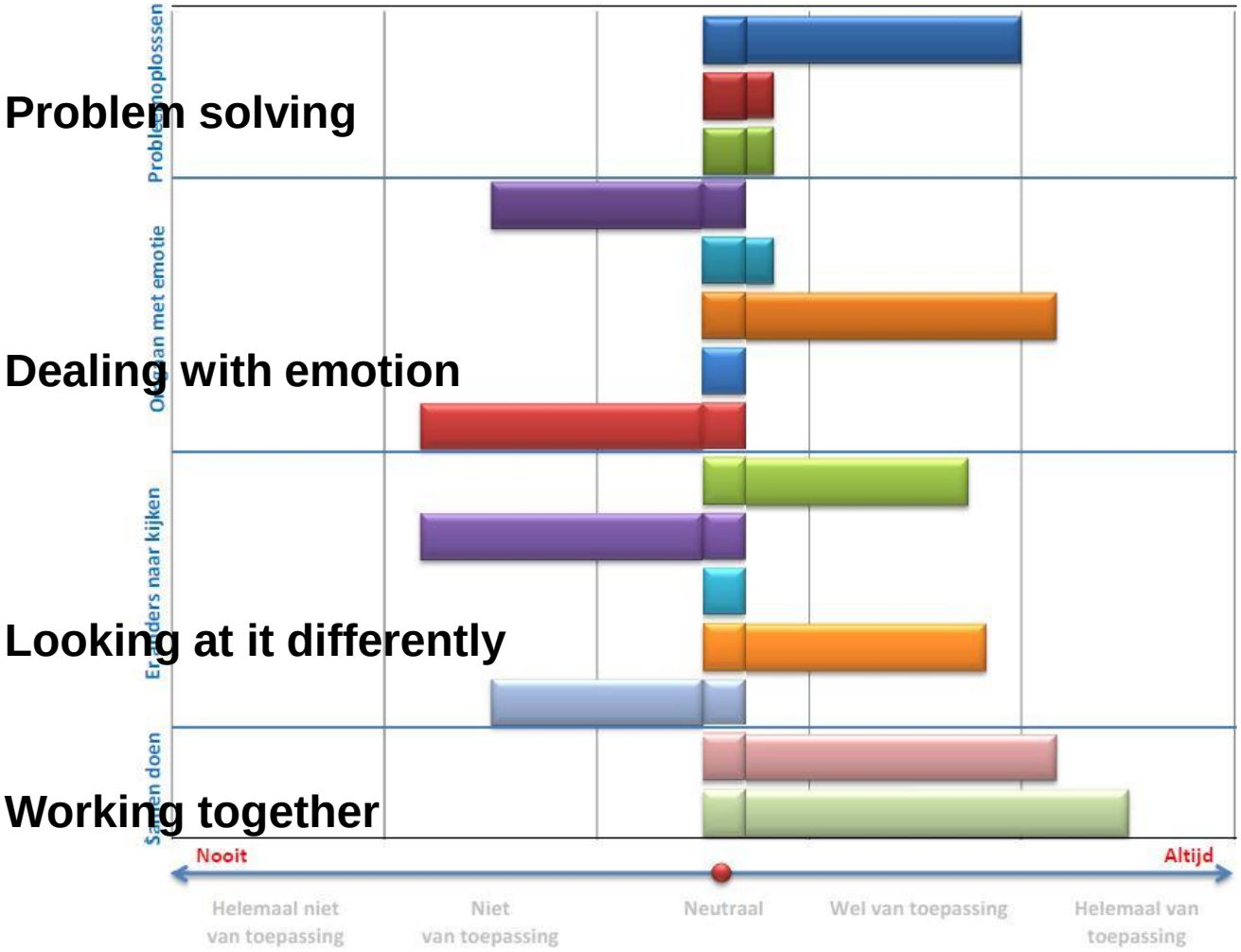
Train de Trainer Program (3 days)

Training program Coping Flexibility



Coping snapshot

[Participant name]



- Attacking
- Planning
- Investigating
- Humour
- Recover
- Venting emotions
- Distraction
- Avoidance
- Positive reinterpretation
- Spirituality
- Meaning in work
- Growth
- Acceptance
- Instrumental social support
- Emotional social support

CONTENT

1. Objective and approach
2. Background Training Program

3. **Experimental Study**

PARTICIPANTS

4 pelotons (classes KMS)

Condition	N (pre-test)	N (passed: post-test)	Age
Experimental group 1	43	20 (47 %)	19.2
Experimental group 2	37	12 (32 %)	19.8
Control group 1	45	19 (42 %)	19.3
Control group 2	25	16 (64 %)	19.6

Total (pre – and post test)

- N (control group) = 32
- N (experimental group) = 35

MEASUREMENTS

	Type of measure	Constructs	Pre	Post
Outcome (= coping flexibility)	Test (open questions)	Knowledge on coping flexibility: • Understanding • Importance	X	X
	Vignettes (open questions)	Applying various coping styles on 6 cases (‘what would you do’)	X	X
Secondary outcomes (self-reflection on coping flexibility)	Questionnaire (5 points ratingscale)	• Self-reflection (SRIS-SR) • Coping self-efficacy (MRM) • Importance of coping flexibility • Effort on applying coping	X	X
Moderators (learning features)	Questionnaire (5 points ratingscale)	• Learning self efficacy (IMI) • Value (IMI) • Intrinsic motivation (IMI) • Engagement • Collaborative learning		X

Situatie 1

Je hebt net een woordenwisseling gehad met iemand uit je klas. Hij ergerde zich aan jouw gedrag. Het liep niet hoog op en je zit er niet heel erg mee, maar je vindt het ook niet leuk dat het gebeurd is.

Example vignette

Vraag 1: Hoe stressvol is deze situatie voor jou?						
Niet stressvol						*Heel stressvol*

Vraag 2: In hoeverre kan je iets aan de situatie doen?						
Helemaal geen invloed						*Veel invloed*

Vraag 3: Denk na over hoe je het beste kunt omgaan met de stressvolle situatie. Wat zou je doen en wat denk je? Beschrijf de verschillende gedachten/gedragingen met enkele woorden/zinnen.

Let op:* Gebruik voor *elke aparte gedachte/gedraging steeds een apart invoerveld

Gedachte/gedraging 1:

Interrater agreement test:
r = 0.69 (N=24)

Example questionnaire

	Helemaal oneens	Oneens	Neutraal	Eens	Helemaal eens
Ik kan goed omgaan met vervelende gevoelens	☐	☐	☐	☐	☐
Ik doe er niet lang over om tegenslagen in mijn leven te boven te komen	☐	☐	☐	☐	☐
Ik red me meestal zonder veel moeite uit moeilijke situaties	☐	☐	☐	☐	☐
Ik vind het belangrijk om te begrijpen wat mijn gevoelens betekenen	☐	☐	☐	☐	☐
Ik vind het belangrijk om de dingen die ik doe te evalueren	☐	☐	☐	☐	☐

RELIABILITY OF QUESTIONNAIRES

Secondary outcomes	Cronbach's alpha	# of items
Coping self-efficacy	0.77	8
Self-reflection	0.84	12
Importance of coping flexibility	0.81	6
Effort on applying coping	0.56	4
Moderators	**Cronbach's alpha**	**# of items**
Learning self-efficacy	0.80	6
Value	0.90	7
Engagement	0.75	4
Intrinsic motivation	0.91	7
Collaborative learning	0.64	5

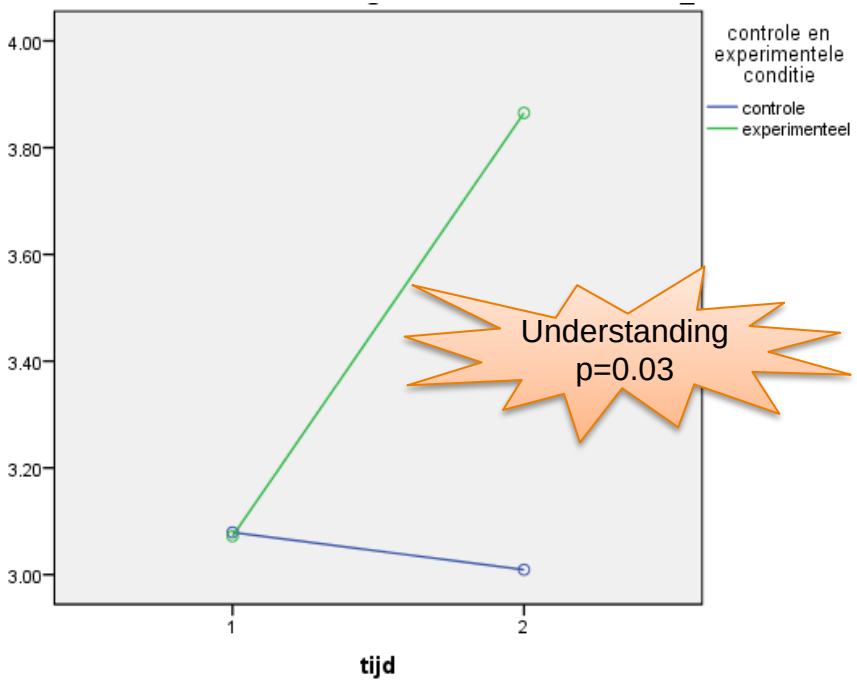
MODERATORS: CORRELATIONS TEST

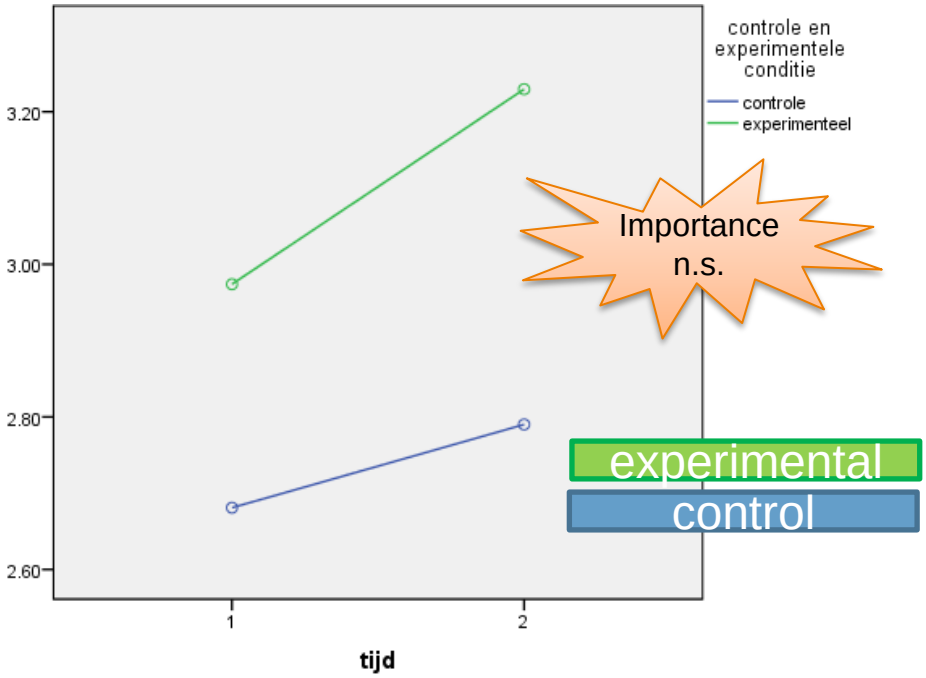
Scale	Delta (post – pretest) Understanding	Delta (post – pretest) Importance
Learning self-efficacy	ρ = 0.15, (p = 0.18)	ρ = 0.14, (p = 0.20)
Value	ρ = -0.04, (p = 0.69)	ρ = 0.02, (p = 0.86)
Engagement	ρ = 0.14, (p = 0.20)	ρ = 0.18, (p = 0.11)
Intrinsic motivation	ρ = 0.01, (p = 0.95)	ρ = 0.03, (p = 0.78)
Collaborative learning	ρ = -0.04, (p = 0.71)	ρ = -0.08, (p = 0.46)

P<0.20 included as co-variable in repeated measure ANOVA, no significant differences between the two conditions: Self-efficacy & engagement

OUTCOME: COMPARING CONDITIONS

REPEATED MEASURE ANOVA





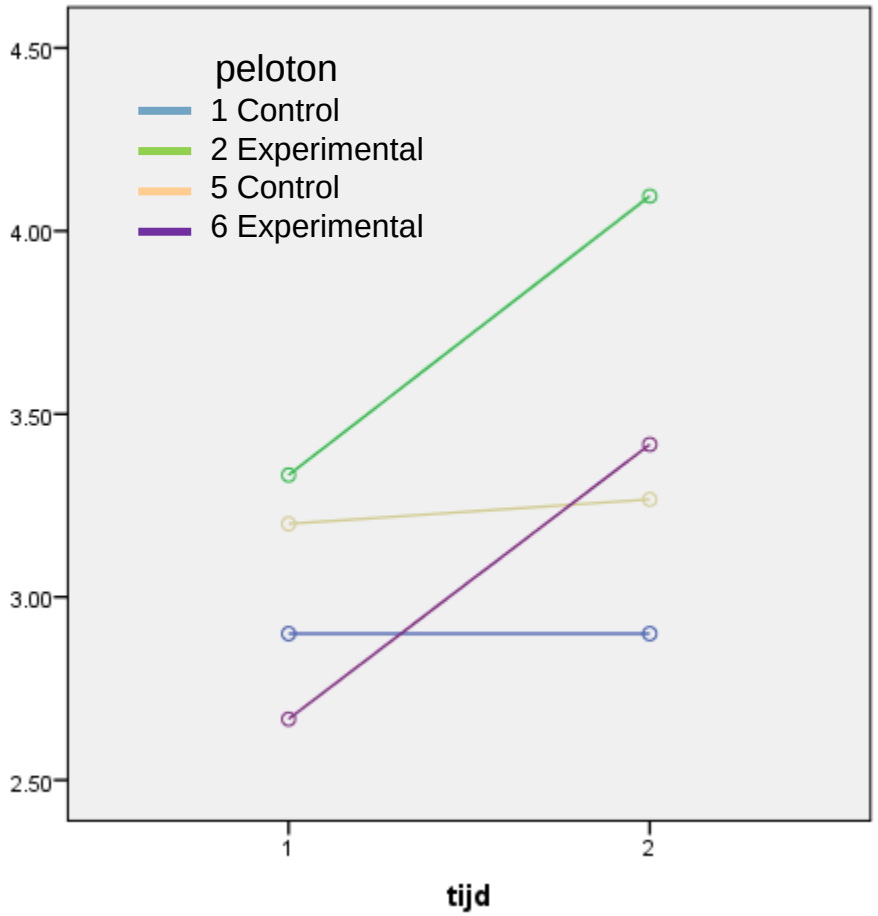
Understanding:

- Time*Condition: F(1,62)=4.925 p=0.030

Importance:

- Time*Condition F(1,63)=.177 p=.675 n.s.
- Main effect time = F(1,63)=3.992, p=0.05

OUTCOMES TEST (UNDERSTANDING) PER PELOTON: SIGNIFICANT INTERACTION EFFECT



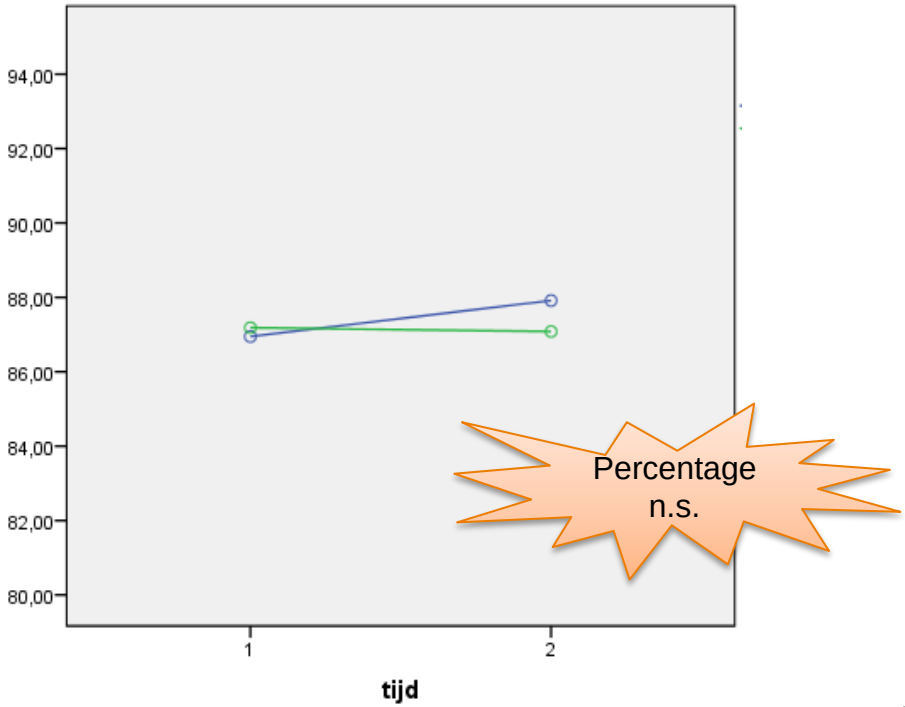
MODERATORS: CORRELATIONS VIGNETTES

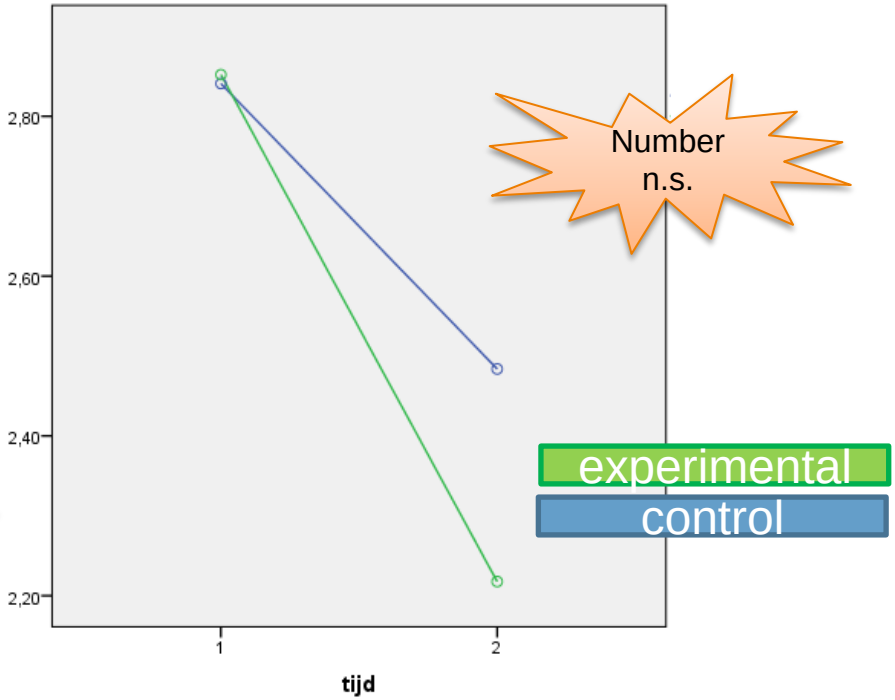
Scale	Delta (post – pretest) Percentage correct	Delta (post – pretest) Number of answers
Learning self-efficacy	ρ = -0.30, (p = 0.01)	ρ = 0.04, (p = 0.78)
Value	ρ = 0.02, (p = 0.89)	ρ = 0.14, (p = 0.27)
Engagement	ρ = -0.06, (p = 0.62)	ρ = 0.14, (p = 0.27)
Intrinsic motivation	ρ = -0.06, (p = 0.66)	ρ = 0.08, (p= 0.54)
Collaborative learning	ρ = -0.01, (p=0.92)	ρ = 0.03, (p= 0.88)

P<0.20 included as co-variable in repeated measure ANOVA, no significant differences between the two conditions: Learning self-efficacy

OUTCOME: COMPARING CONDITIONS

REPEATED MEASURE ANOVA





Percentage correct:

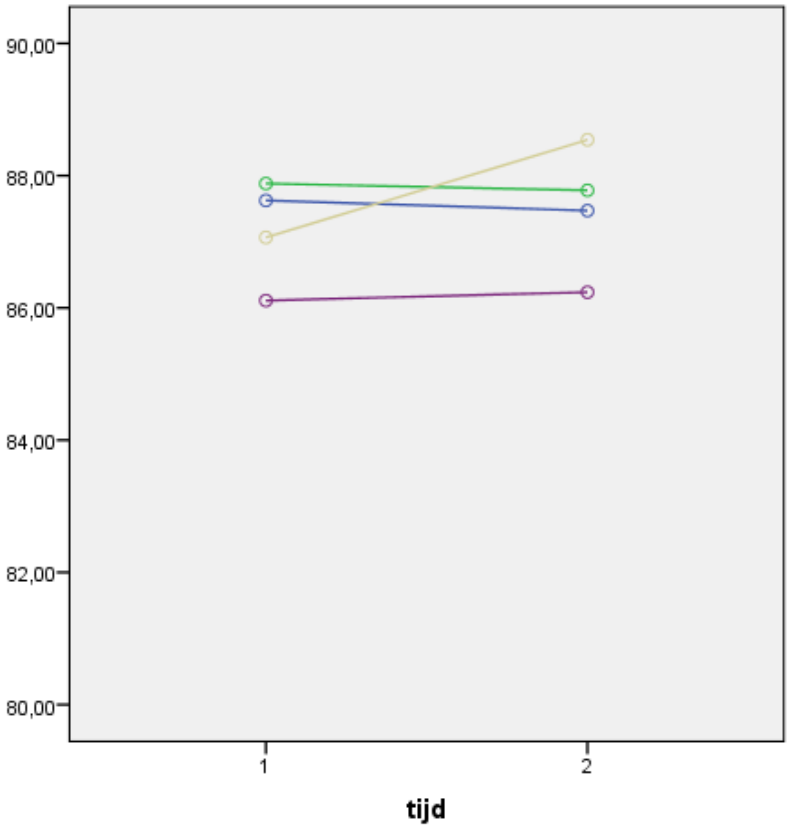
- Time*Condition: n.s.
- Main effect time: F(1,62)=8.663, p=0.005

Number of answers:

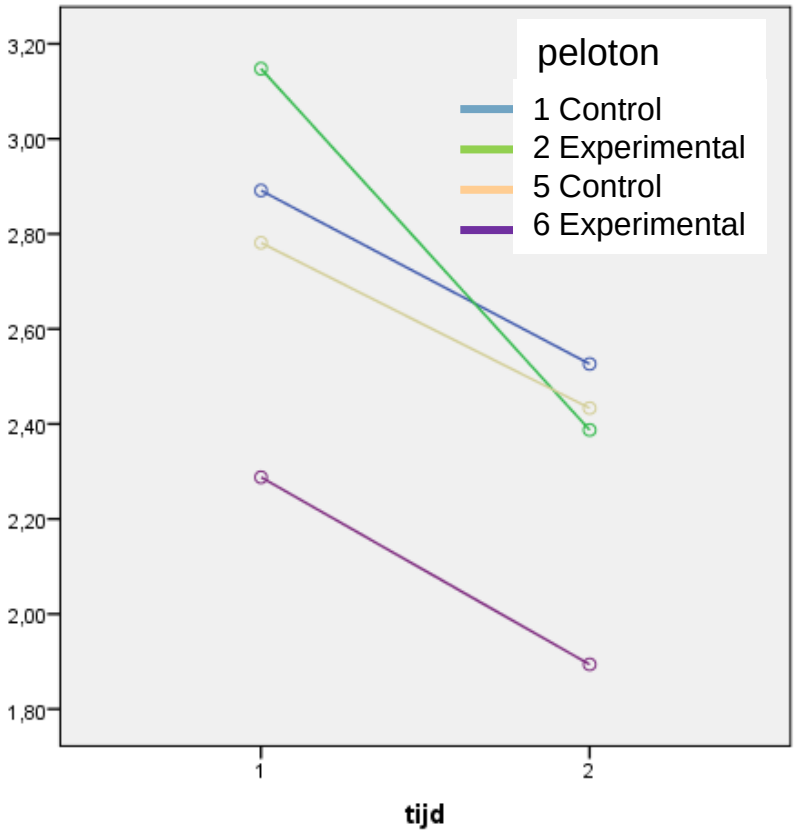
- Time*Condition: n.s.
- Main effect time: F(1,65)=16.229, p<0.0005

OUTCOME VIGNETTES PER PELOTON

Percentage



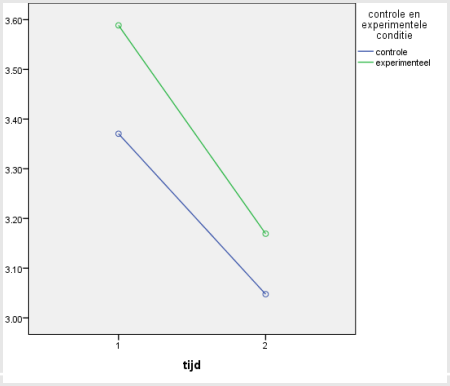
Number



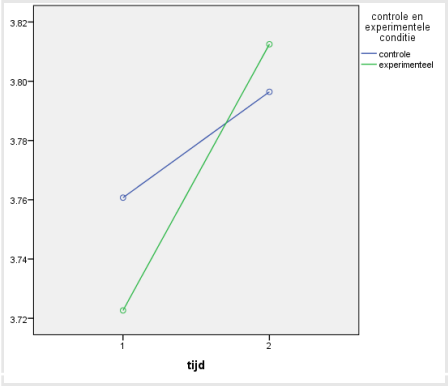
SECONDARY OUTCOME MEASURES

REPEATED MEASURE ANOVA

Self-reflection time*condition n.s.



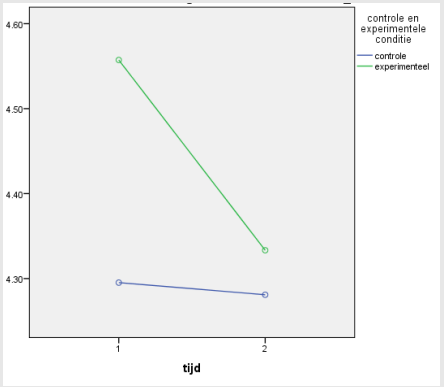
Coping self-efficacy time*condition n.s.



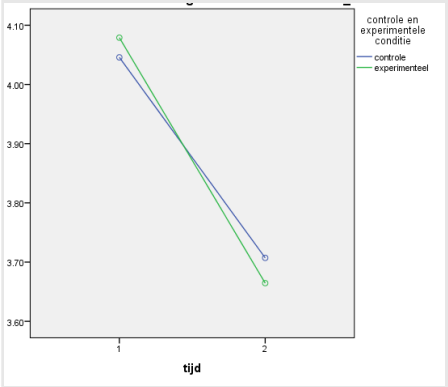
experimental

control

Importance time*condition n.s.



Effort time*condition n.s.



CONCLUSIONS

Results:

- Outcome (coping flexibility): sign different between control and exp group only on *understanding* part of the test, not on the vignettes
- Secondary outcomes: no sign differences between the two groups
- Moderators: sign influence of *learning self-efficacy* and *engagement*

Explanation (despite of small N):

- Coping flexibility: very difficult to measure as learning outcome
- Training coping flexibility difficult to standardize (e.g. instructors, schedule)
- Control group also received relevant training (e.g. mental exercises)

THANK YOU FOR YOUR ATTENTION

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