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TEACHING COMMUNICATION SKILLS USING A VR BASED TRAINING PLATFORM

INTRODUCTION – COMMUNICATION TRAINING

- Limited opportunity for practice and feedback
- Feedback is subjective
- Learning efficiency is difficult to measure
- Difficulty & content depending on skills of the actor and the relationship with the actor

POSSIBLE BENEFITS VR BASED TRAINING

- More practice moments to master skills
- Freedom of choice of time and place
- Freedom to try out
- A safe, controlled and consistent learning environment
- Intense and genuine acquaintance with future clients
- Personal, objectified feedback
- Tools for monitoring and directing (own) learning process
- Accurate determination and standardization of variables
- Preparation for the use of techniques in the field.

HIGH IMPACT LEARNING (DOCHY E.A. , 2016)

- Realistic tasks: a powerful, truthful, consistent and controlled learning environment. Use the virtual client by programming practice situations tailored to them.
- Direct feedback
- Possibility to monitor own learning process

RATIONALE

- The true learning environment that VR offers, in which both focus and sense of freedom are increased and the development of empathy is stimulated, increases the learning effect in teaching communication skills.

MEET OUR VIRTUAL CLIENTS

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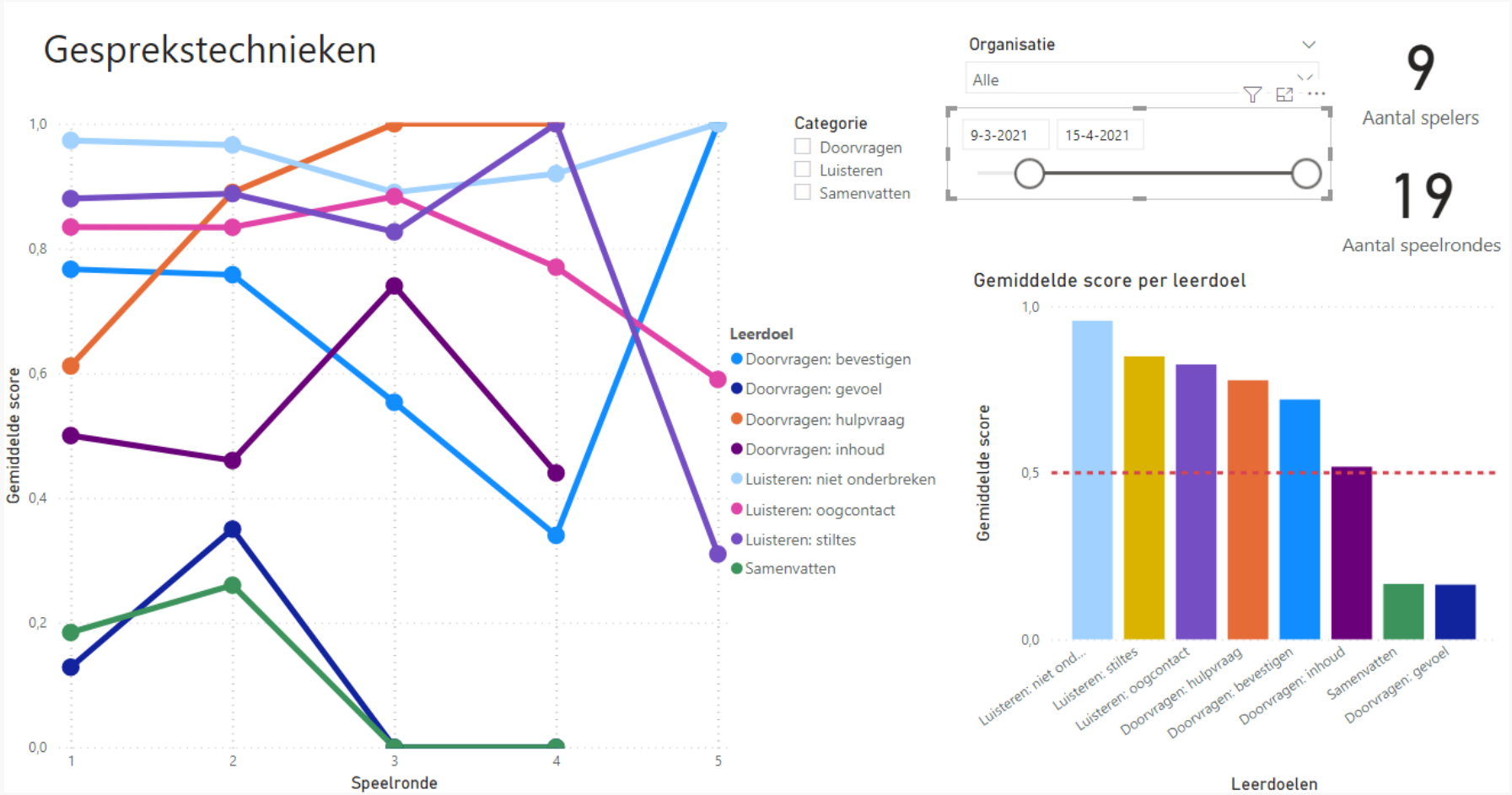
DEMO VR-SIMULATIE INTAKE: DOORVRAGEN

Hulpvraag

VR AS LEARNING TOOL

ONDERWIJS TECHNOLOGIE



METHOD

- Participants
- Procedure
- Questionnaires/ interviews
  - UTAUT, Self-assessment questionnaire, Usability
  - Subjective Experience & Modified Arcs (acceptability & feasibility)
  - Qualitative interview
- Data analysis

	N (students)
Intake interview	**27**
Music therapy students	14
Communication students	13
MVG (motivational interviewing)	**26**
Students of minor ‘gedraag je’	26
Ongoing data from previous measurements	**104**
Applied psychology students	45
Physical therapy students	59

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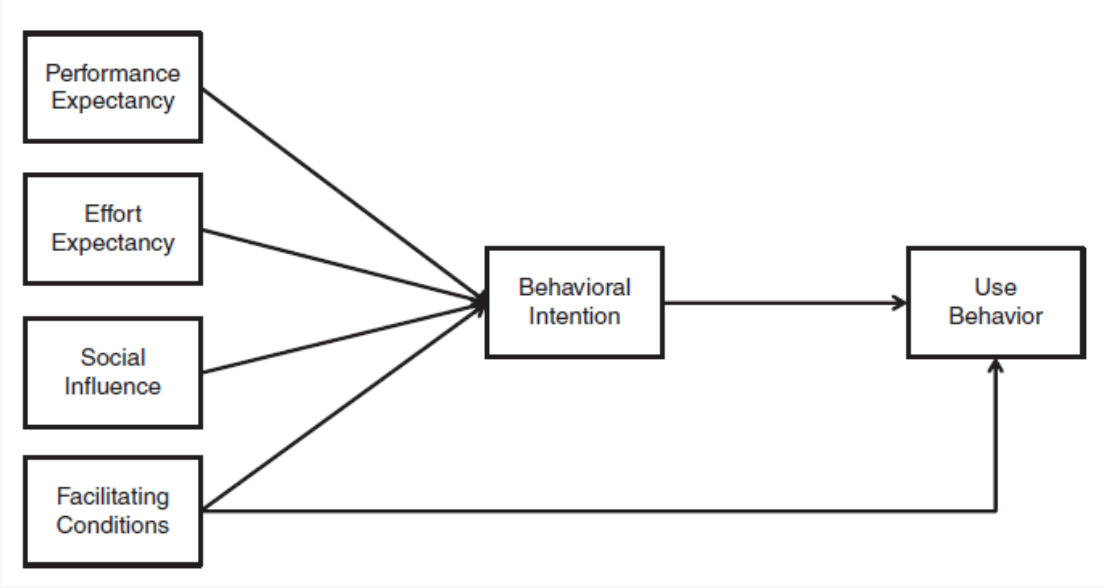
RESULTS (1)

- **UTAUT**: Acceptance & Use of Technology

Subscale	Pretest (M)	Posttest (M)	p value
Performance	17.17	18.00	.307
Effort	13.83	14.73	.316
Social Influence	7.33	7.36	.871
Facilitating Conditions	8.92	10.00	.200
Motivation	10.83	10.45	.603
Behavioral Intention	10.00	10.00	1.00

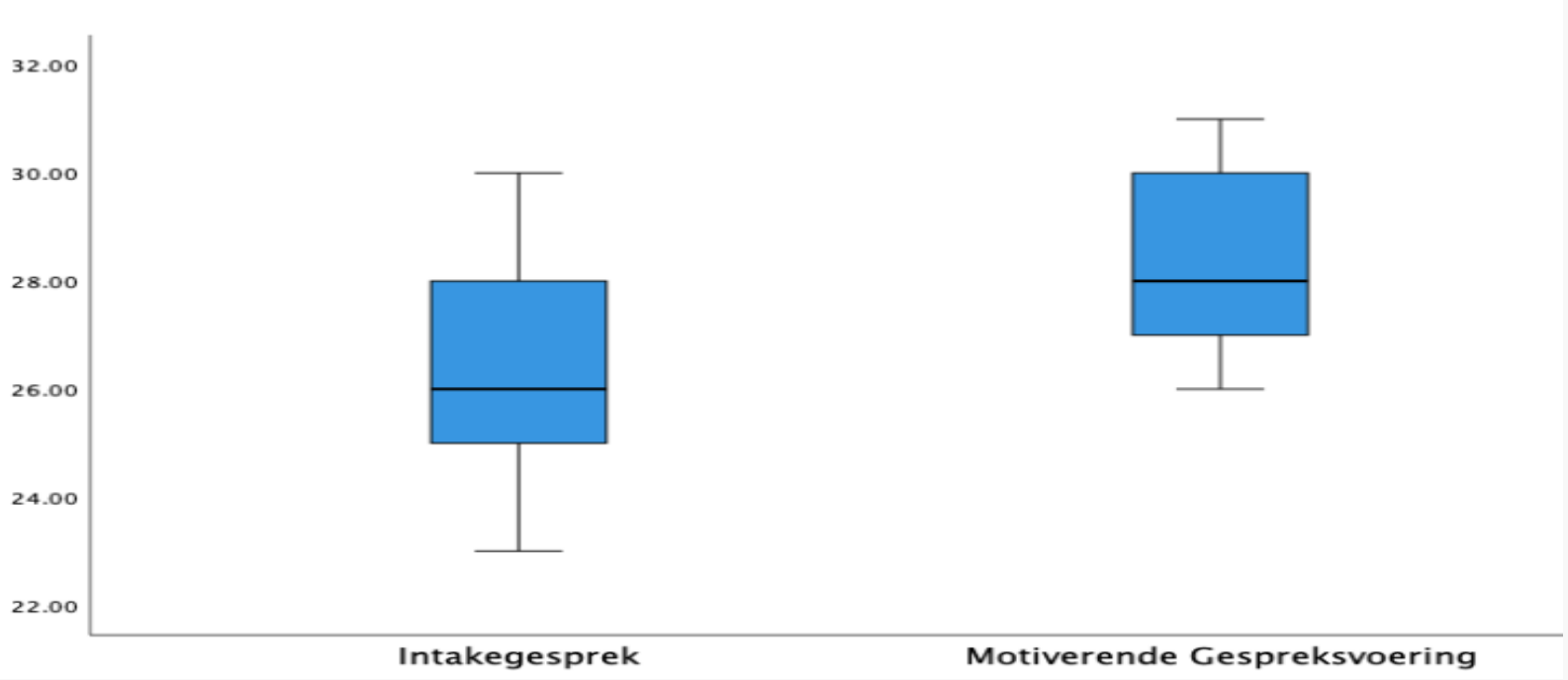


- **Self-assessment questionnaire (C vs VR)**

To what extent do students feel capable of performing the assessment ($F(1, 17) = 2.380$, $p = .141$)

RESULTS (2)

- **Usability**: $F(1,18) = 6.116$, $p = .024$



RESULTS (3)

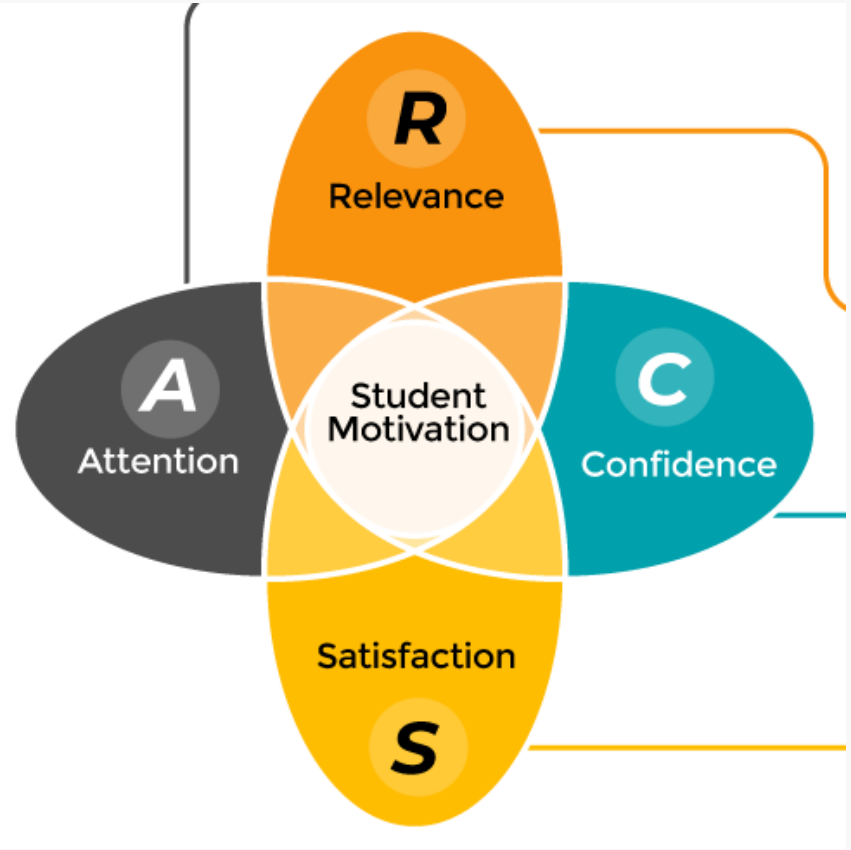
- **Subjective experience**

This VR simulation has made me better at asking open questions, which is necessary for conversational skills (*p*=.055)

- **Modified Arcs**

The VR simulation has contributed to remembering the learning material (*p*=.055)

No differences between Intake & MI



RESULTS QUALITATIVE

Negative

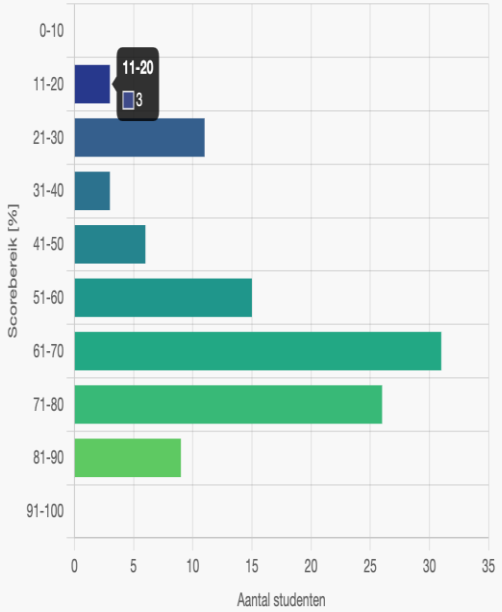
- Avatar has insufficient answering options --> going into depth isn't possible yet.
- Difficulty with accents and stuttering
- Multiple scenario's are missing
- Difficulties logging in
- Nausea & dizziness

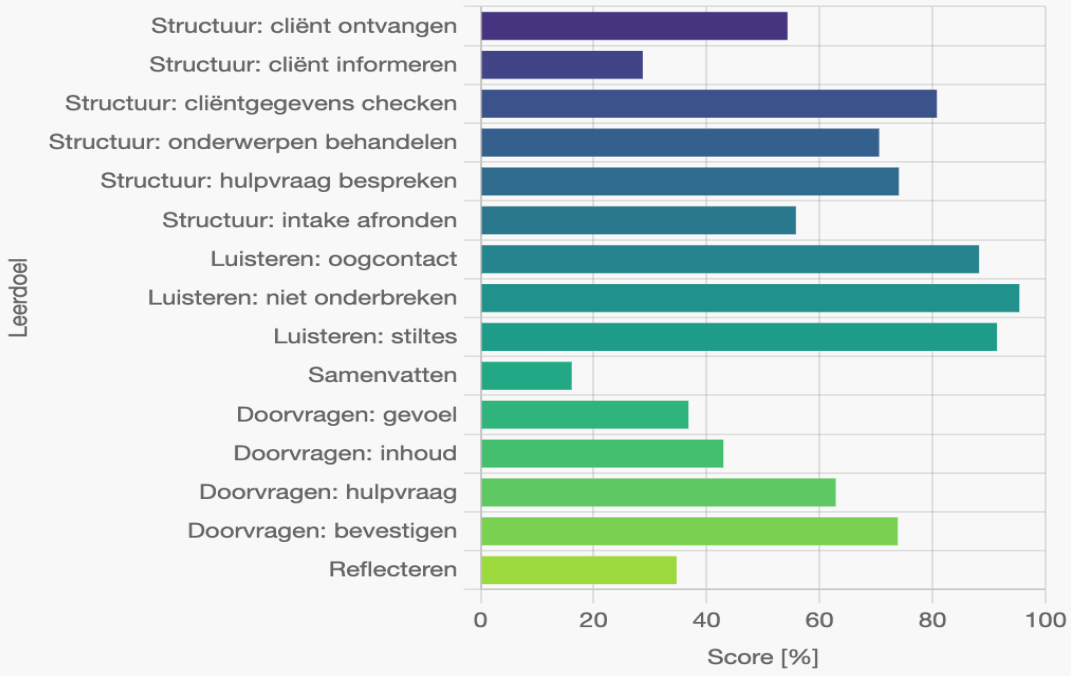
Positive

- Making mistakes has no consequences
- Freedom to try, because nobody is watching (performance anxiety)
- Easy to empathize and understand others
- Easier to concentrate
- Structured, concrete feedback
- Learn to formulate simple sentences
- Learn to ask one question at the time
- Bridge between education and practice

RESULTS ONGOING DATA COLLECTION

- **N=104 STUDENTS, PRACTICED 271 TIMES, AV = 52 %**





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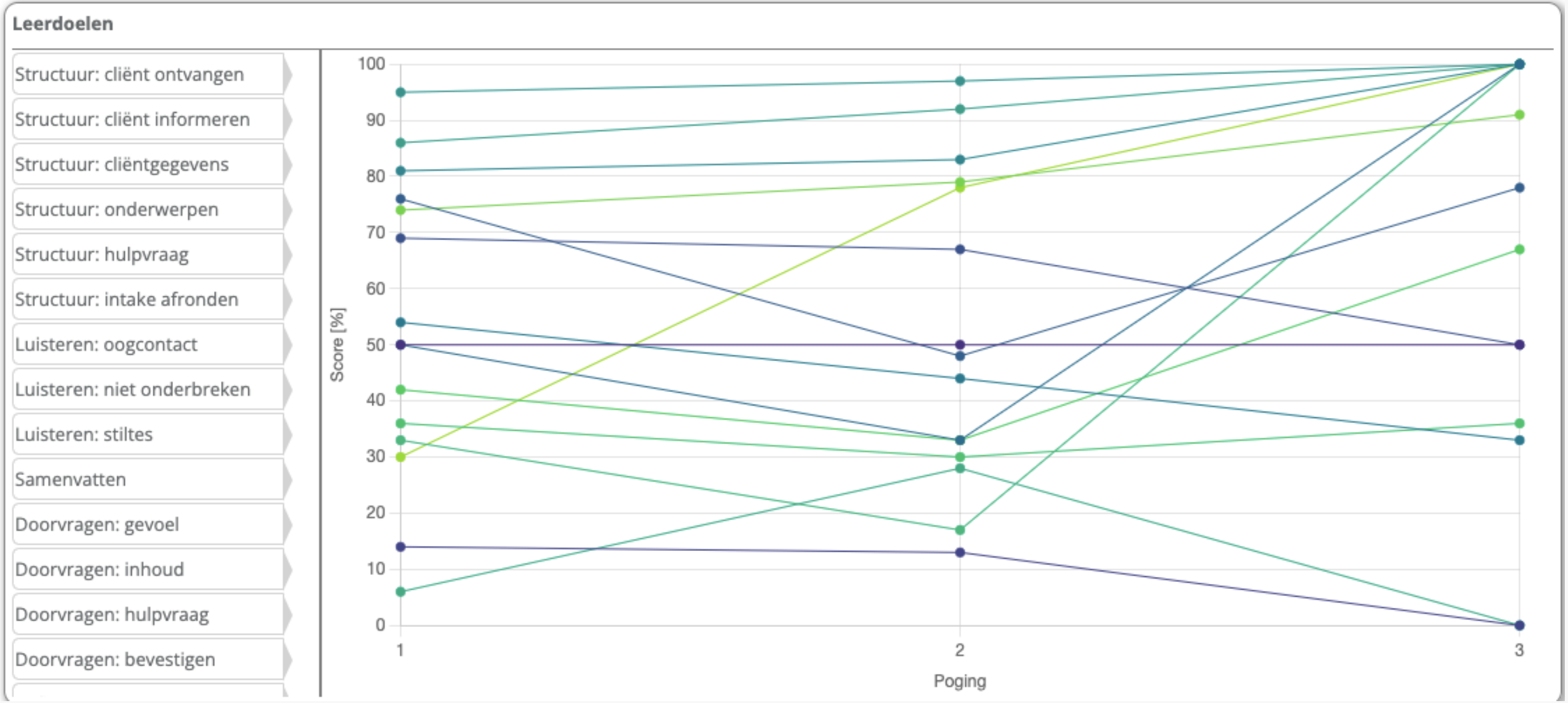
DASHBOARD – STUDENT ATTEMPTS

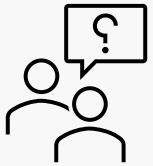


DISCUSSION

Start of the study simultaneoulsy with the curriculum

After Covid-era: seeking a new balance

Larger samples, Multicenter study



Skill to summarize: student scores are < 30% in both apps

WHAT'S NEXT

Simulation improvements:

- Better avatar responses: Logbook (Google speech recognition)
- Measurements of non-verbal contact
- Feedback directly from game vs. Feedback teacher regarding the game

Infrastructure improvements:

- Plug and play (& dashboard)

Measurements of effects

JUNE 22 – GUEST LECTURE PROF. BRENNAN SPIEGEL (UCLA)

- 13:00 Start
  13:30 Welcome
  13:35 Guest lecture Brennan Spiegel
  14:15 Q&A
- 14:30 VR iXperience
  14:30 Meeting VR Education
- 16:00 Closure

enliven.

SyncVR

INMOTIONVR

the simulation crew

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