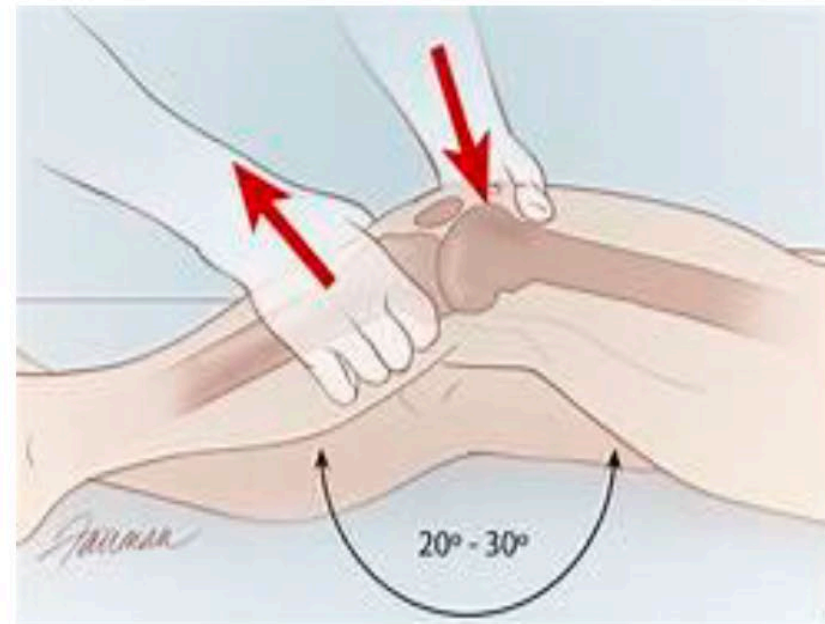


Shouldn't we just make a video?

Classic Clinical Learning vs. Video Assisted Learning of the Lachman's Test

- A Small Pilot Study



Outline

- Background
- Material and Methods
- Results
- Discussion/Reflections



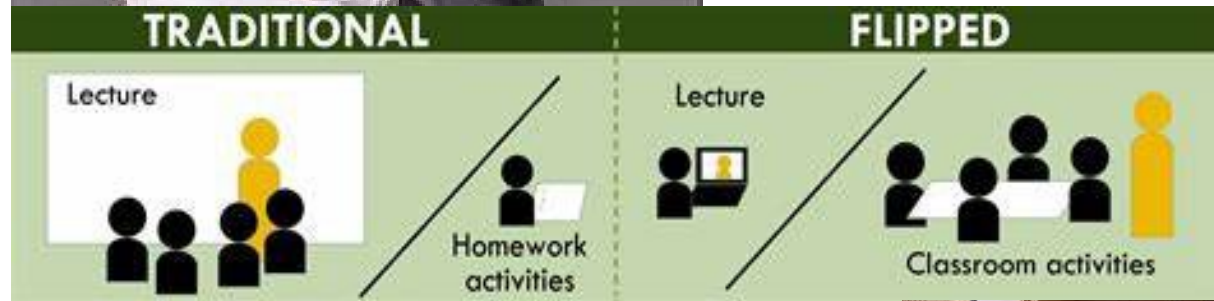
Background

- Classic Clinical Education
 - Since Hippocrates
 - Traditional



Video-assisted Education

- New: Flipped class room:
- Lectures on video: success



- **What about use of video in teaching clinical procedures?**



Material & Methods

Medical Students:

Forth-year (8th-term) students from University of Bergen
Attending an 8-week clinical education period
at Stavanger University Hospital, Autumn 2021

30 students were invited.

Written info and consent.



Material & Methods

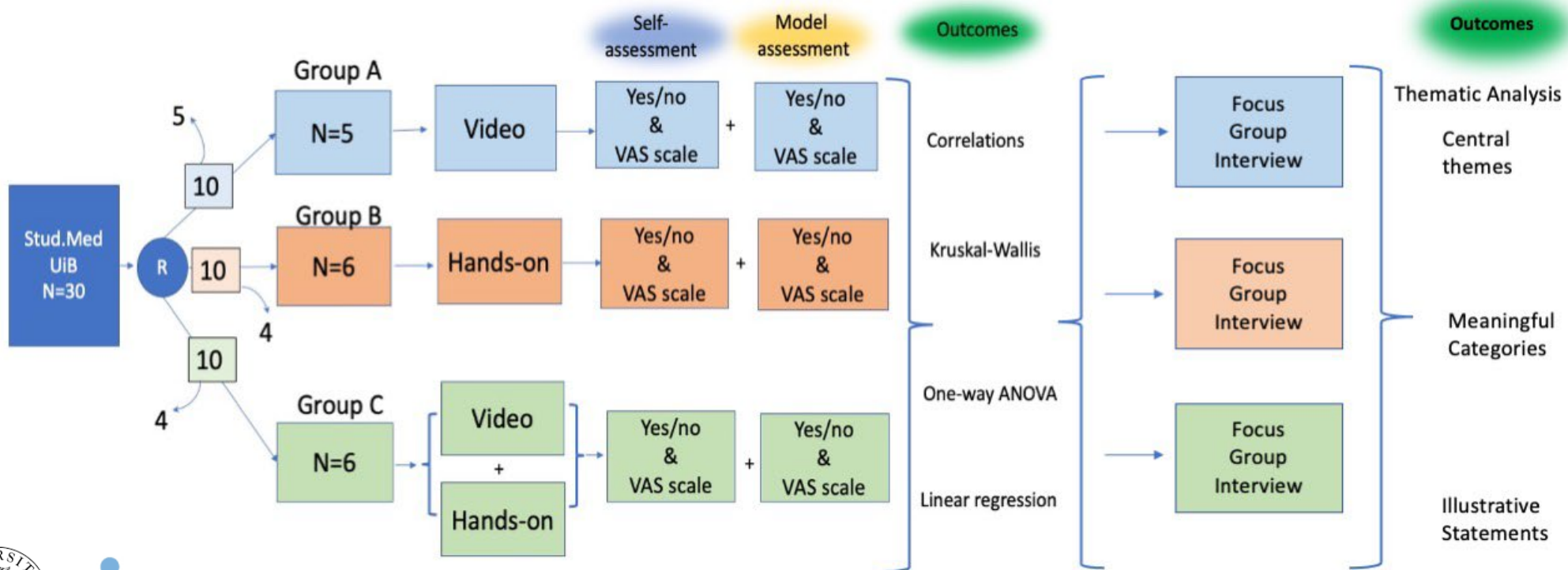
The
instruction
and
Test-models
for objective
scoring



Material & Methods

Quantitative part of the study

Qualitative part of the study



Material & Methods

Quantitative scorings

2. Følte du at du fikk til å gjøre Lackmans's test?

Ja

Nei

Vet ikke

3. På streken under ber vi deg sette en tverrstrek i den grad du føler du lykkes med å utføre Lackman's test



Helt sikker på at
jeg utførte testen
galt

Helt sikker at
jeg fikk gjort
testen **korrekt**



Material & Methods

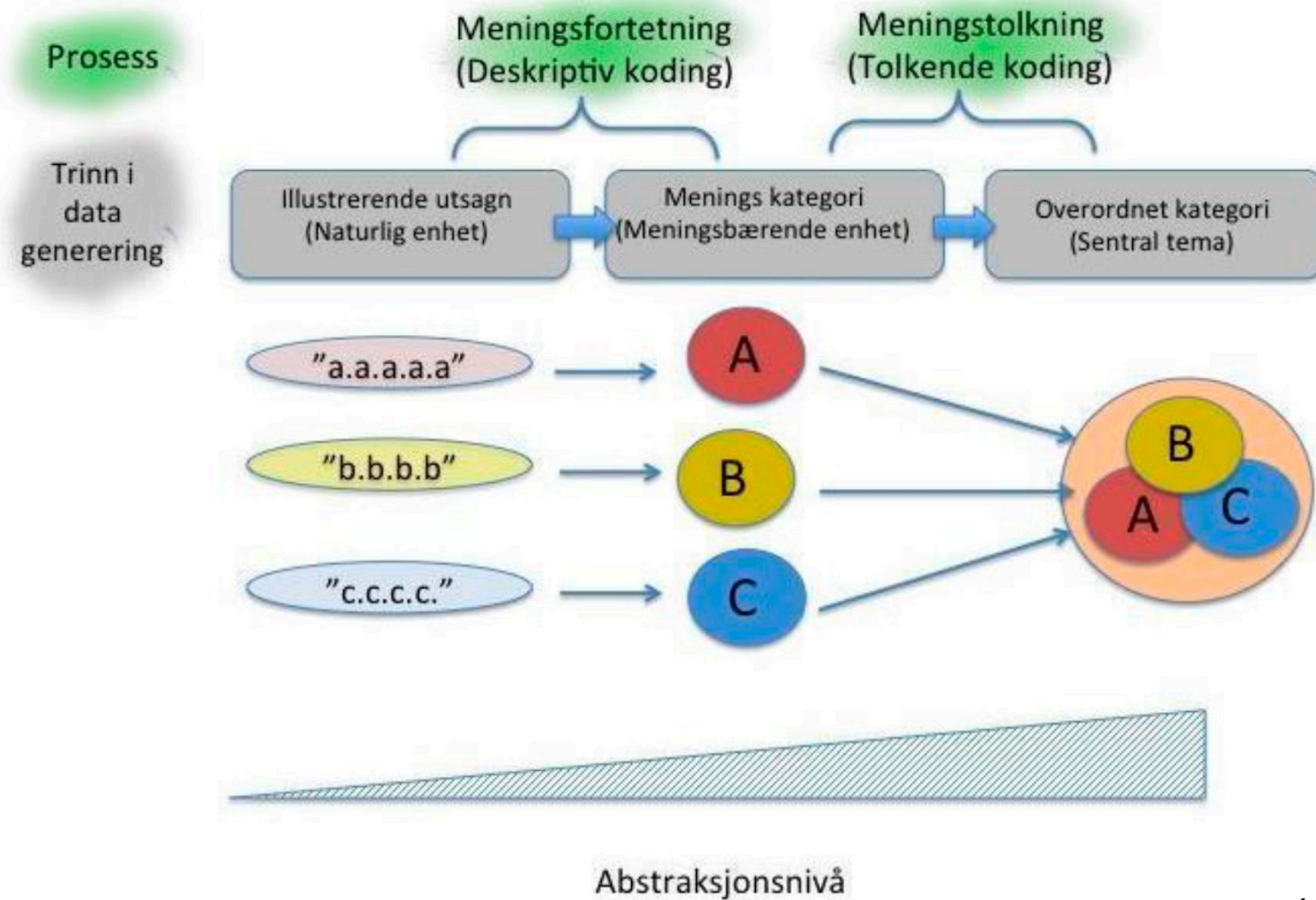
Focus group interview

‘To clarify and illuminate a particular topic area through a conversation. The point of gathering a group instead of interview participants individually, is that the participants relate to each other's opinions’



‘To get a response, ideas or as part of development of new measures.’

Material & Methods



Thematic
Analysis



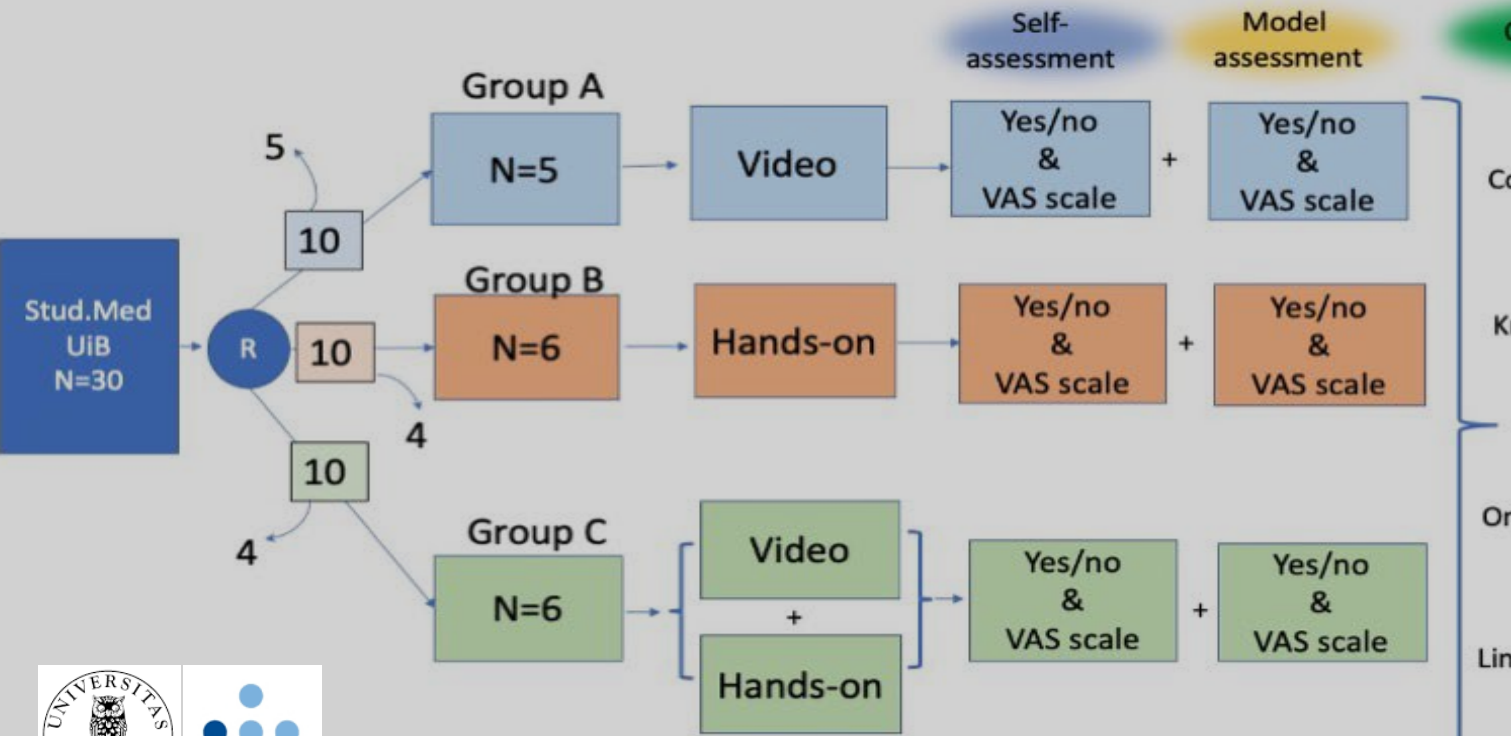
Material & Methods

The video.....

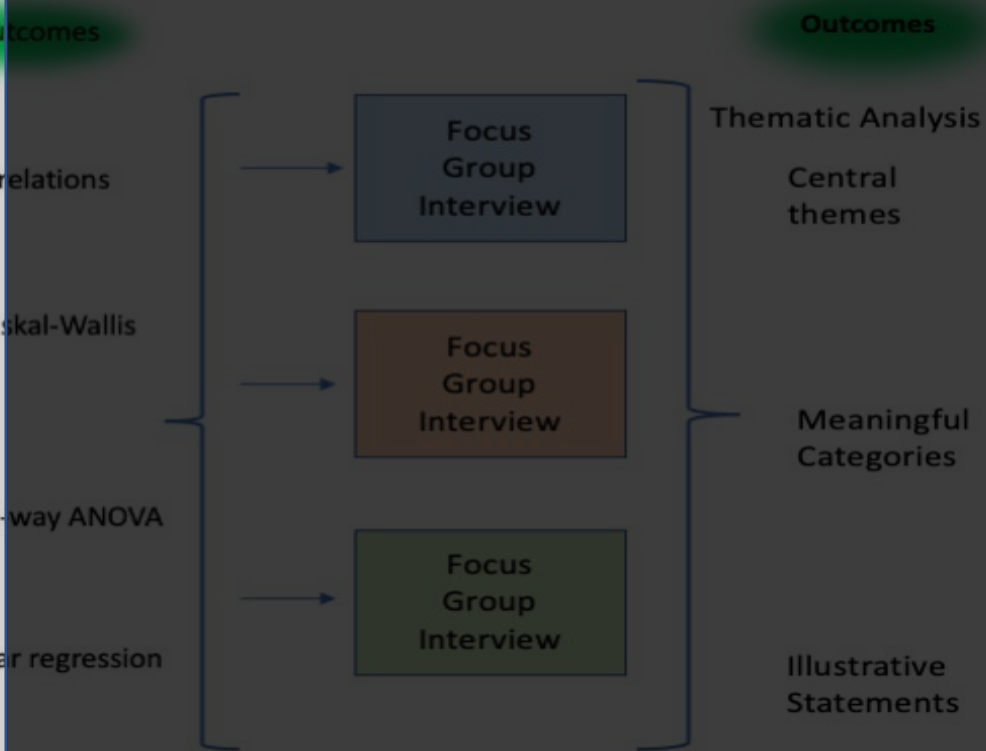


Results – Quantitative

Quantitative part of the study



Qualitative part of the study



R² Linear = 0.724

Gruppe A

$y = -23.06 + 1.57 * x$

Lackman_VAS_MODELL

Lackman_VAS_STUDENT

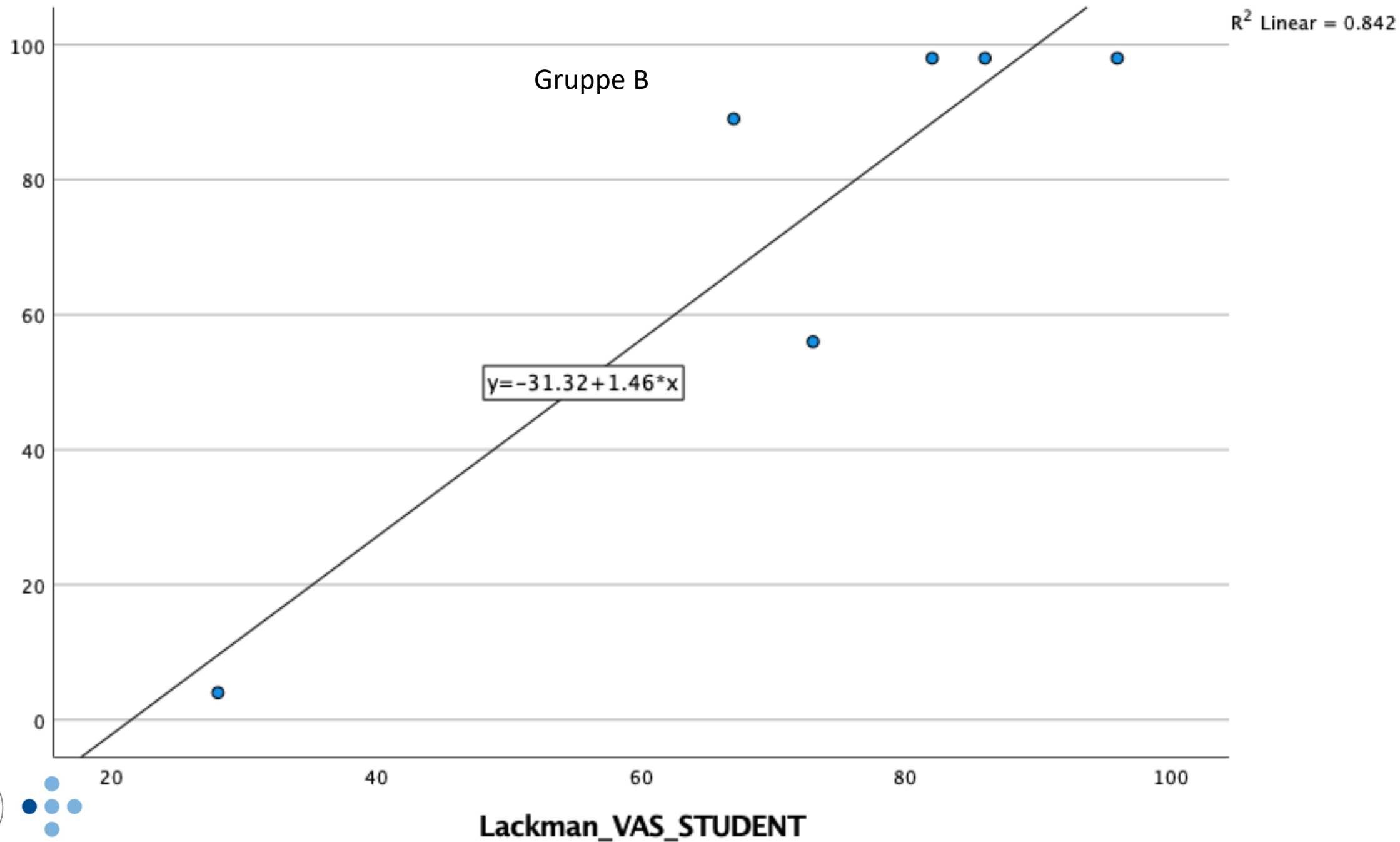
100
80
60
40
20
0

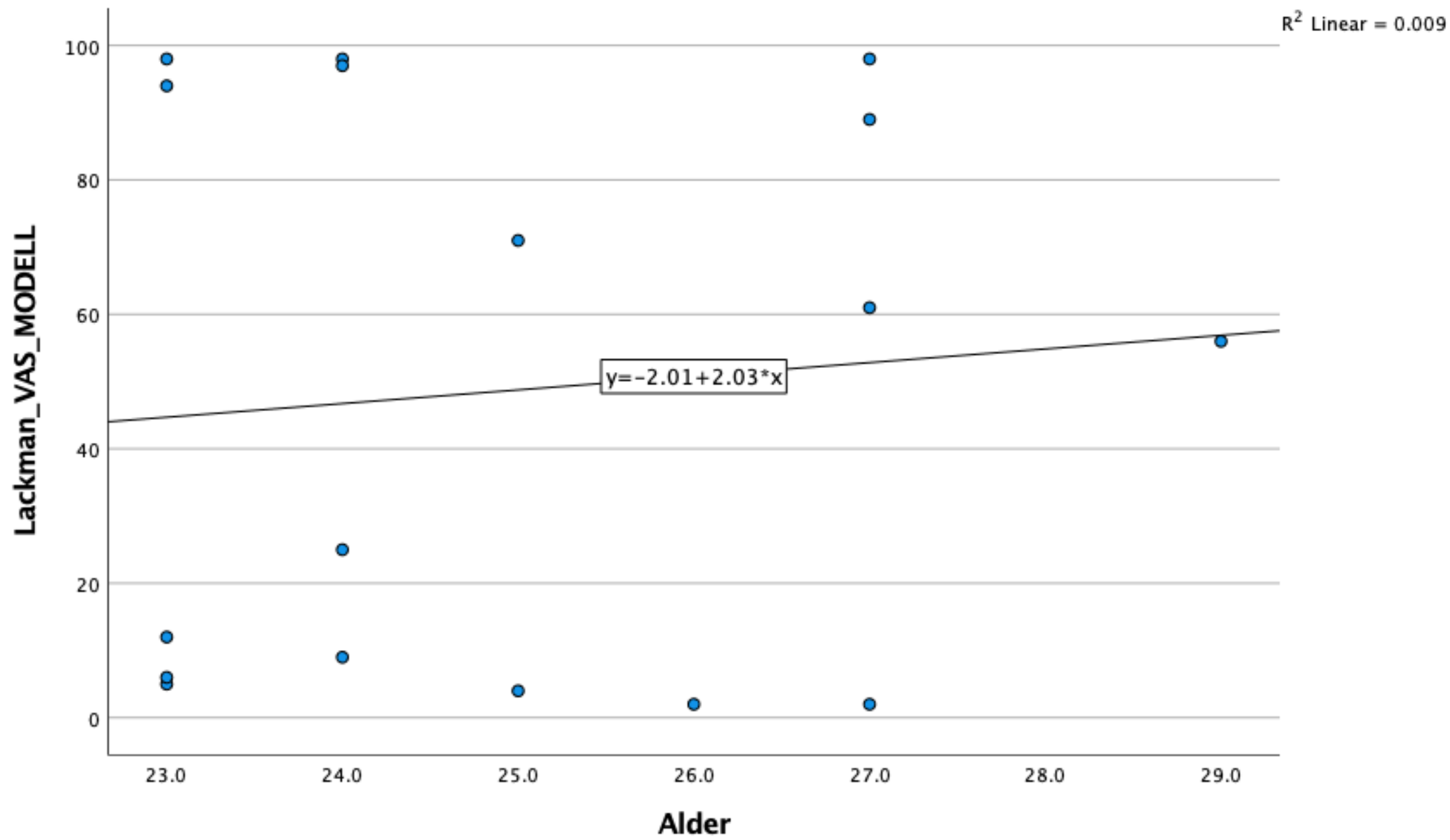
0 20 40 60





Lackman_VAS_MODELL

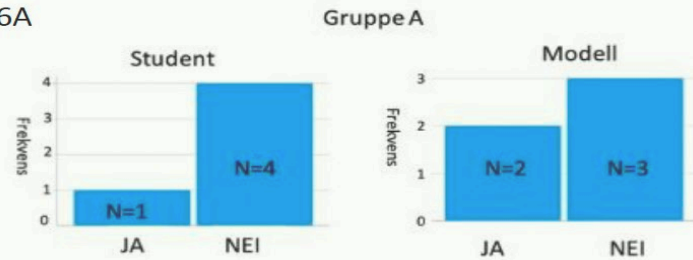




Dicotomous: Self-evaluation vs Objective evaluation

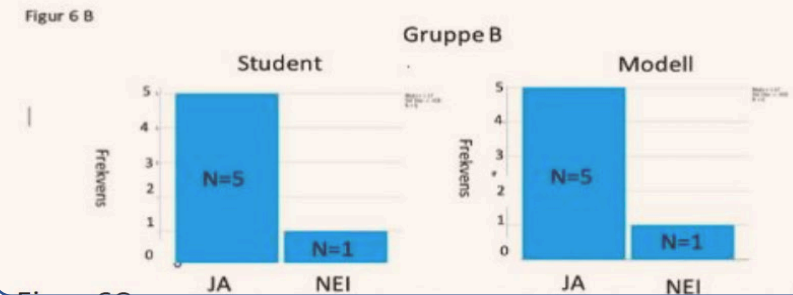
Group A

Figur 6A



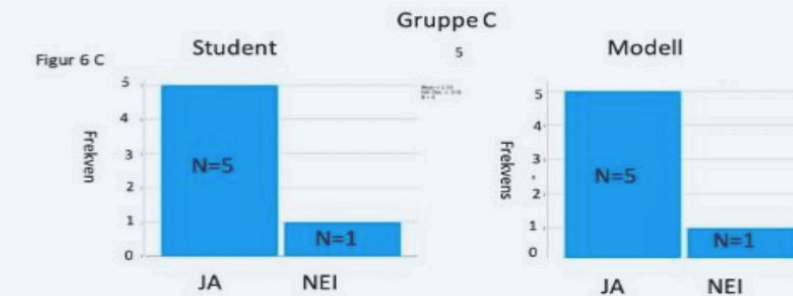
Group B

Figur 6B

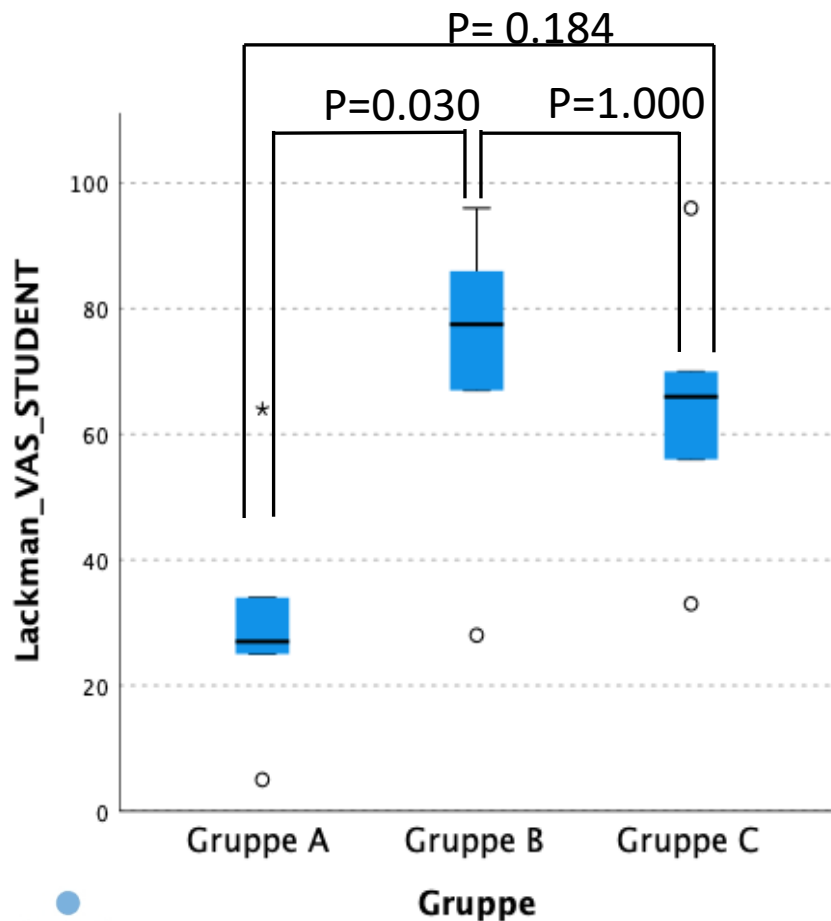


Group C

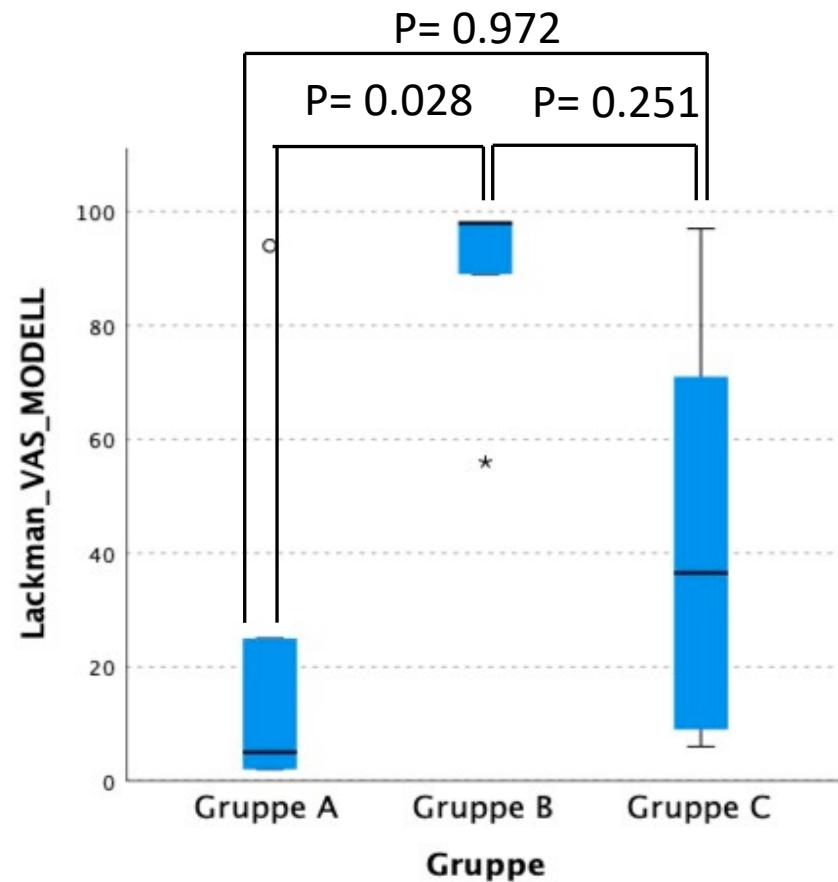
Figur 6C



VAS: Self-evaluation vs Objective evaluation



Self-evaluation



Objective-evaluation



Simple linear regression

Lineær regresjonsanalyse

Variabel	Justert beta	Beta	Beta 95 % KI	P
VAS - STUDENT	0.769	1.17	0.615 til 1.73	<0.001*
Alder	0.098	2.080	-9.98 til 14.1	0.717
Kjønn	0.294	27.1	-23.3 til 77.6	0.269
Gruppe (alle)	0.145	7.00	-20.4 til 34,4	0.592
Gruppe A (ref=B)	-0.723	-62.2	-108.7 til -15.71	0.013
Gruppe C (ref=B)	-0.548	-45.1	-89.6 til -0.62	0.047
Gruppe B	0.615	52.9	13.97 til 91.81	0.011

Tabell 1. Enkel lineær regresjonsanalyse (VAS-modell score er avhengig variabel)



Multivariable linear regression

Dependent variable: VAS-Model (objective measure)

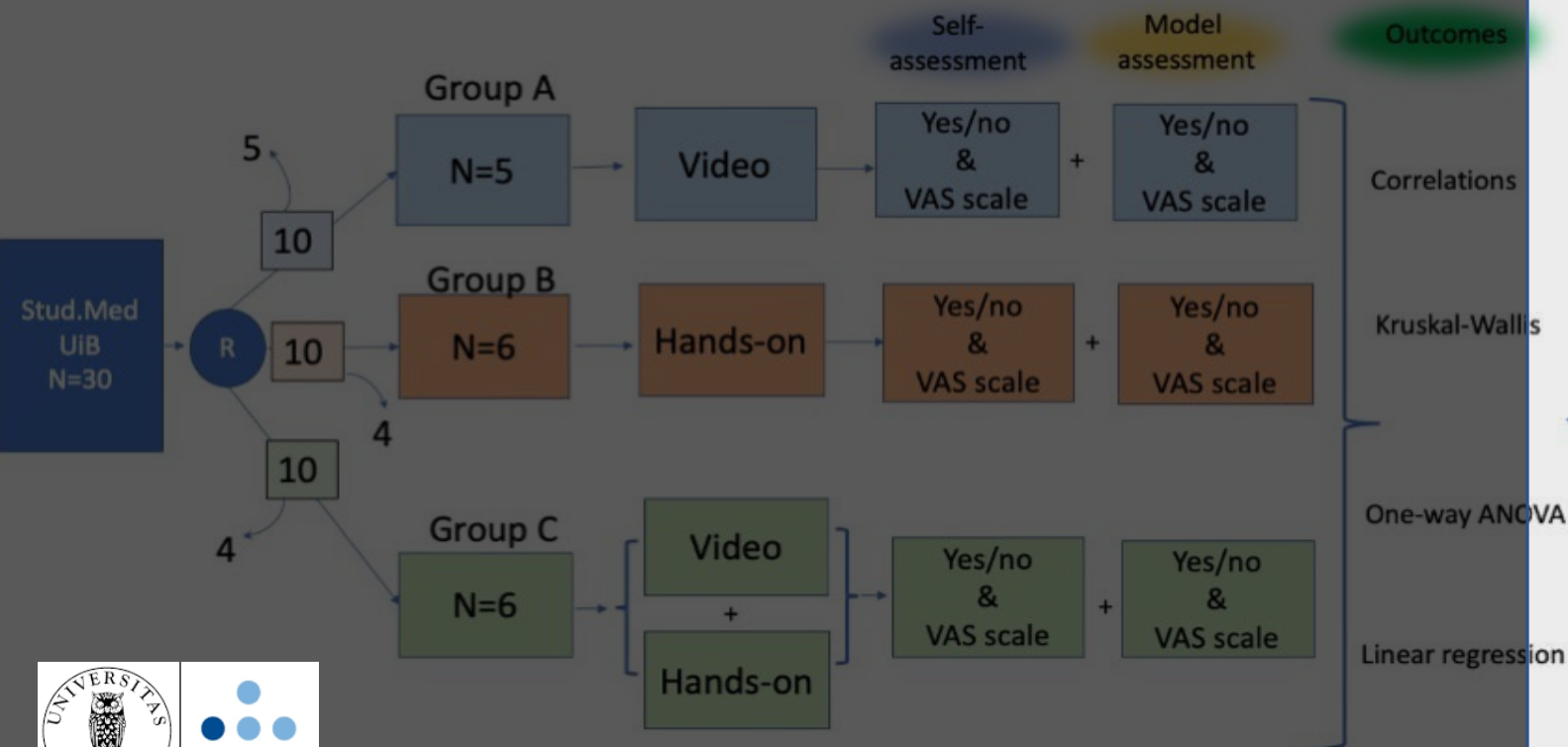
Gruppe B (Classic training): Beta=52.6 (95%KI, 13.9 til 91.8; P=0.011)

was the only independent variable in the final model

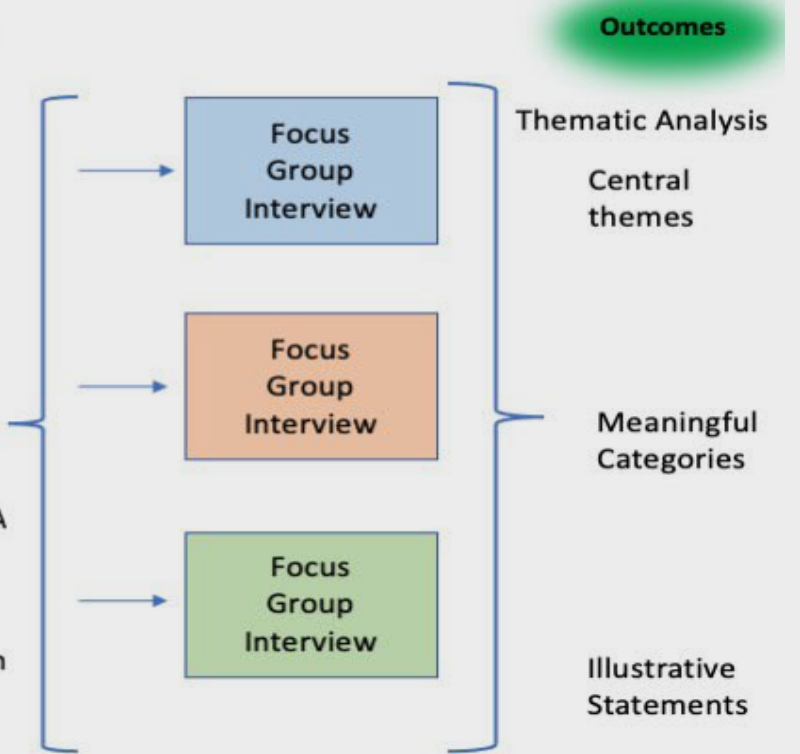


Results – Qualitative

Quantitative part of the study



Qualitative part of the study



Results – Qualitative

Group A



Central theme Video creates insecureness in the students

Category: Knowledge does not sustain after the video

Natural unit [.....especial regarding the details.....where should I hold and push?]

Results – Qualitative

Group B



Central theme: Classic method create know-how

Category: Training give mastery

Natural unit:[..... and when you receive instruction that you understand and then are tested in a way where you experience mastery, you will in a way go further on with a high degree of mastery.....]

Results – Qualitative

Group C



Central theme : Classic training overrules video

Category : Did not learn enough from the video

Natural unit: [...I do not trust that video is enough for me ...]

Central theme: Video can complement clinical teaching

Category: Classical teaching and video do well together.

Naturlig unit [... ..Video.... helps a lot to be prepared to things then in general when you are going to do something... .and repeat before the exam....].

Discussion / Reflections

- Video teaching alone scores low on the VAS-scale
- Classical teaching scores high on the VAS-Scale
- Video is probably not suitable when it comes to specific skills / procedures
- Small study: type 1 and type 2 errors
- BUT:
 - The differences are very clear ($B = 52.6$)
 - The qualitative study support the quantitative study



Discussion / Reflections

- Such a study can be done within one semester
- Need a good plan, good logistics and enough people
- Learning outcome descriptions (LUBs) important to define before filming
- Video easy to make (iPhone + iMovie).
- Technical: Decent sound and good picture



Discussion / Reflections

- Video length: 5 minutes
- For video: Suitable format was small group teaching 'SGU'
- Video in the corona era: probably best suited for theoretical lectures



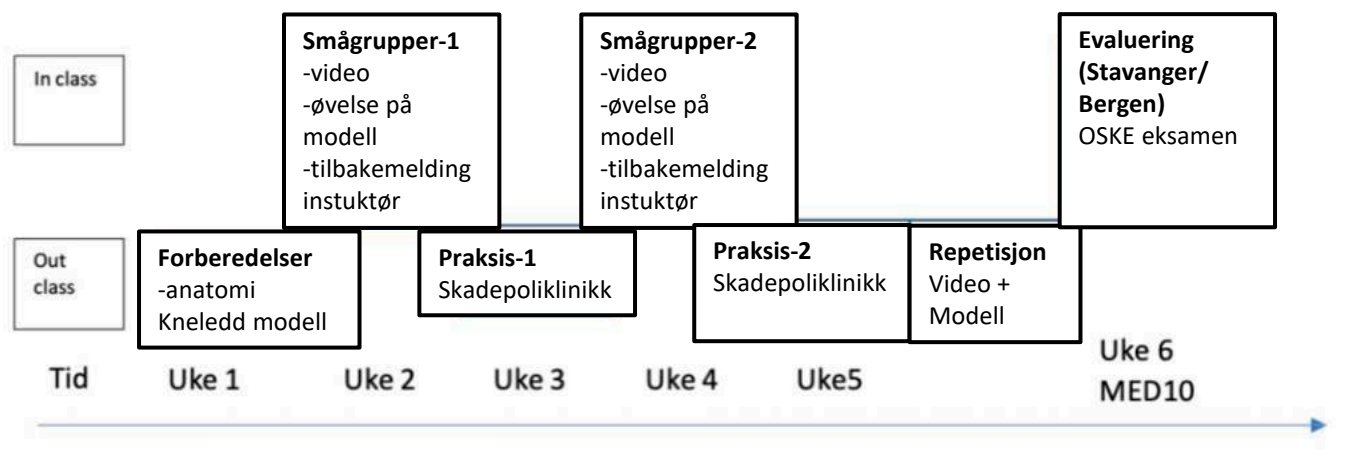
Discussion / Reflections

- Important to include a qualitative method
- The students were eager to discuss and share experiences
- This experience proved to support the quantitative analysis
- Although small study: qualitative = quantitative
- The combination increases the ethos of the study



Discussion / Reflections

- Castle- Top model may be suitable for this type of training



Sorry!

We can't just make a video!



Acknowledgements

- 1.Aman.Kirsten Lode, RN, PhD
- Dr. Sigmund Lende, MD
- Prof. Hartwig Körner, MD, PhD
- 1.Aman. Monica Kvernenes
- 1.Aman. Sissi Weibell
- Students and models



