

## Figures corresponding to the 4TU.ResearchData entry:

### Data underlying the Research on "Development and Evaluation of a Proficiency-based and Simulation-based Surgical Skills Training for Technical Medicine Students"

<https://doi.org/10.4121/14837907>

Figures were made for and match with the PhD thesis (Chapter 8) of Frank R. Halfwerk:

Halfwerk, F. R. (2020). Innovations in cardio-thoracic surgery: Predicting and optimising outcome with state of the heart technology. University of Twente.

<https://doi.org/10.3990/1.9789036550697>

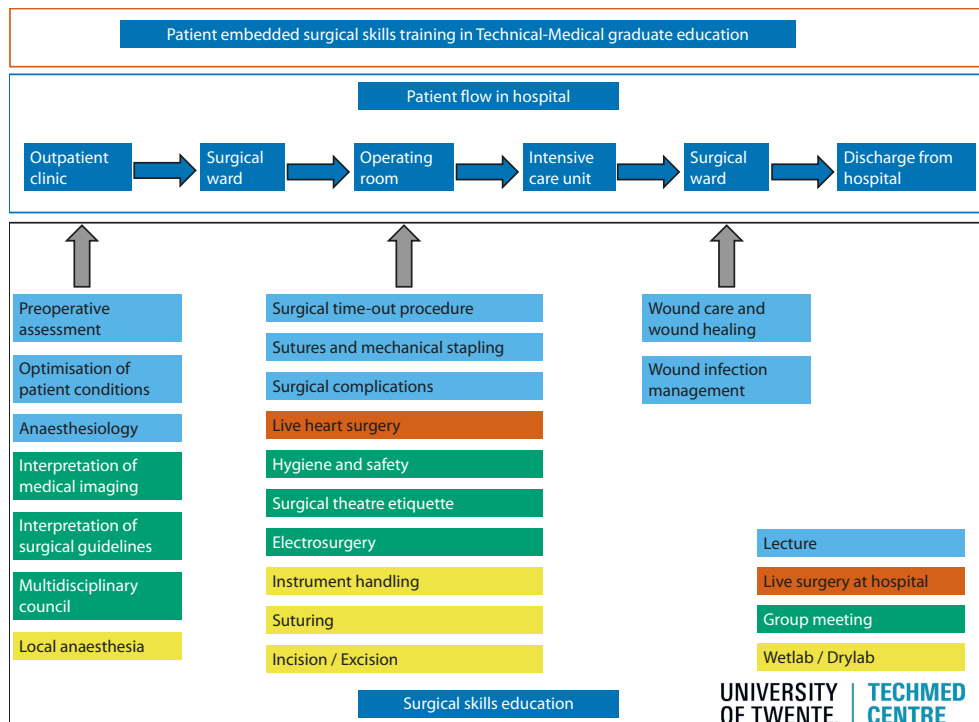
#### The study has also been published as:

Halfwerk, F.R. , Groot Jebbink, E., & Groenier, M. (2020). Development and Evaluation of a Proficiency-based and Simulation-based Surgical Skills Training for Technical Medicine Students. MedEdPublish, 9(1), [3523].

<https://doi.org/10.15694/mep.2020.000284.1>

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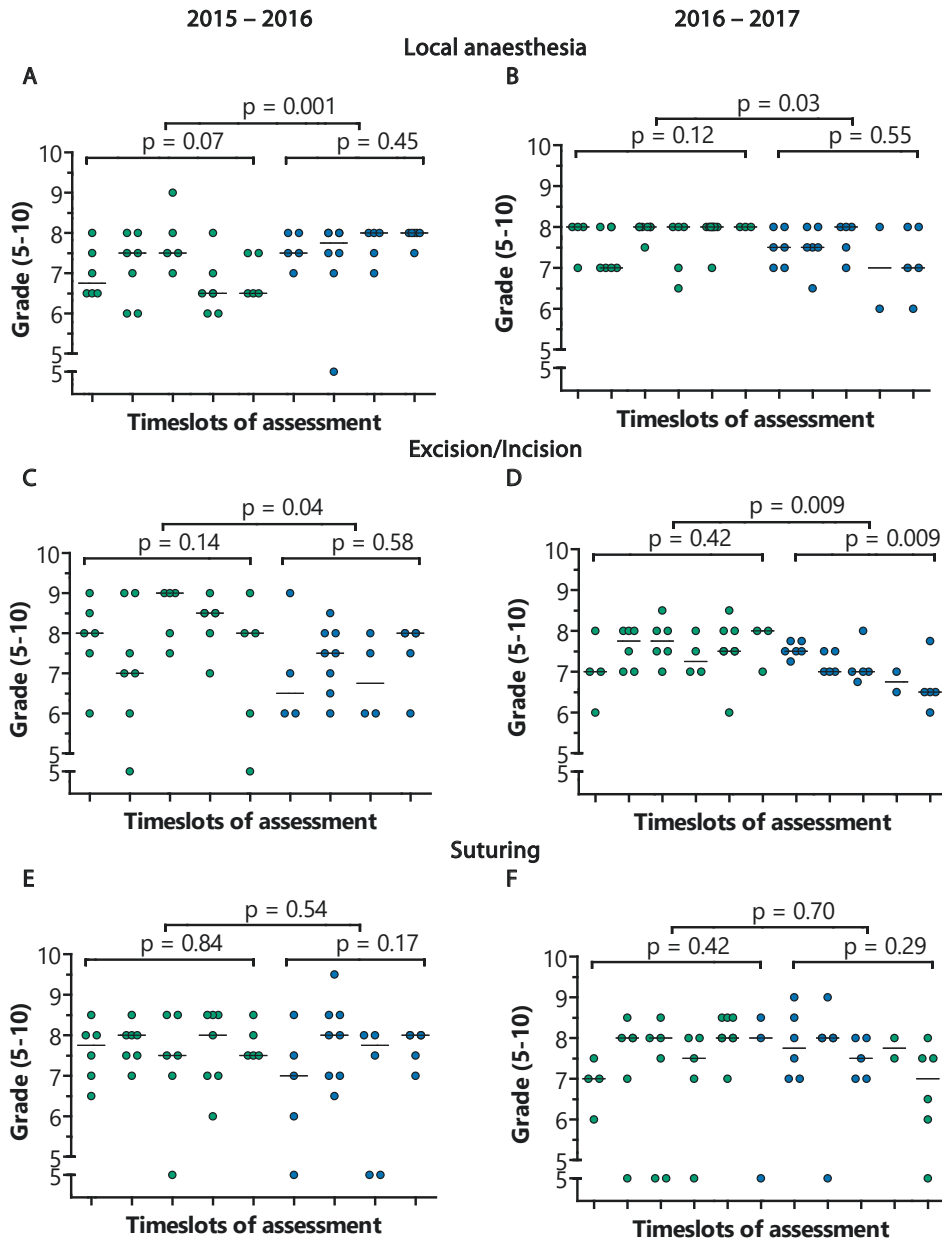
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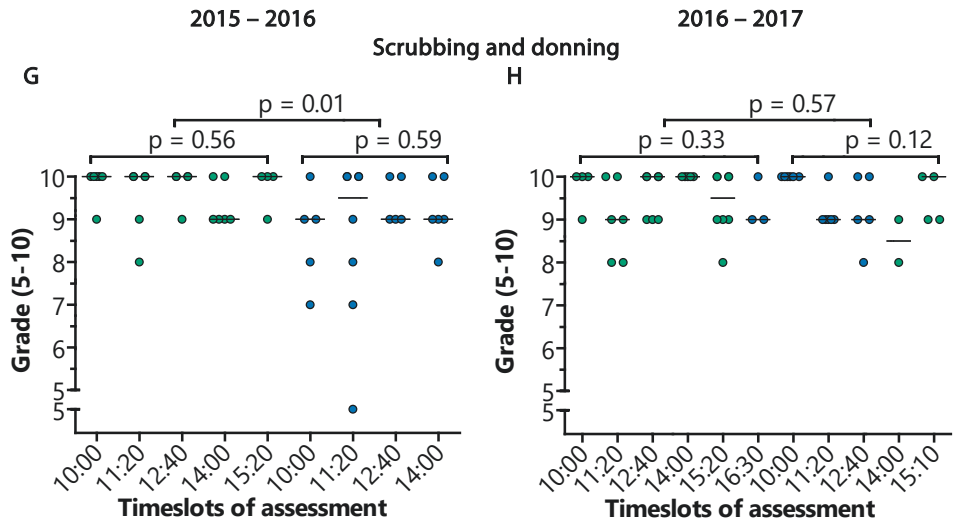


*Figure 1 New surgical skills curriculum with patient surgical flow as backbone*

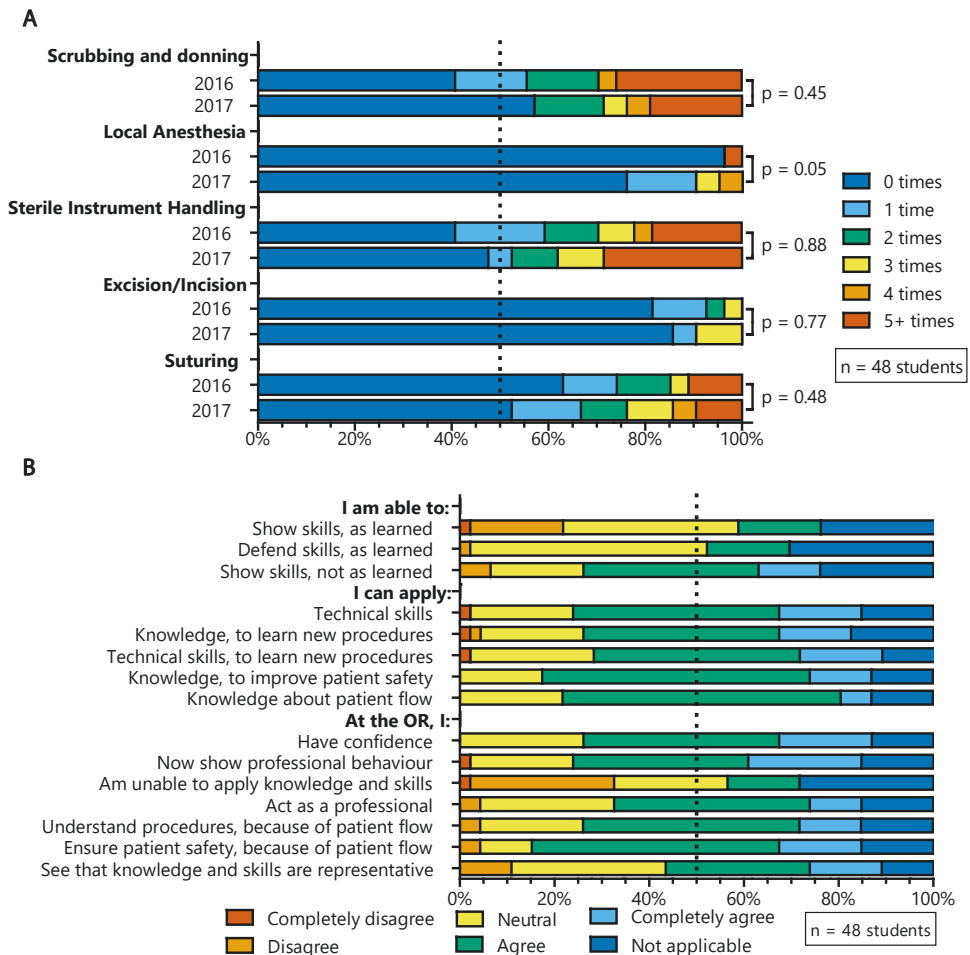


**Figure 2** Setup of the suturing station in a simulated operating room with two examinees (left) and one examiner (right). Permission was obtained for use of this photograph for publication





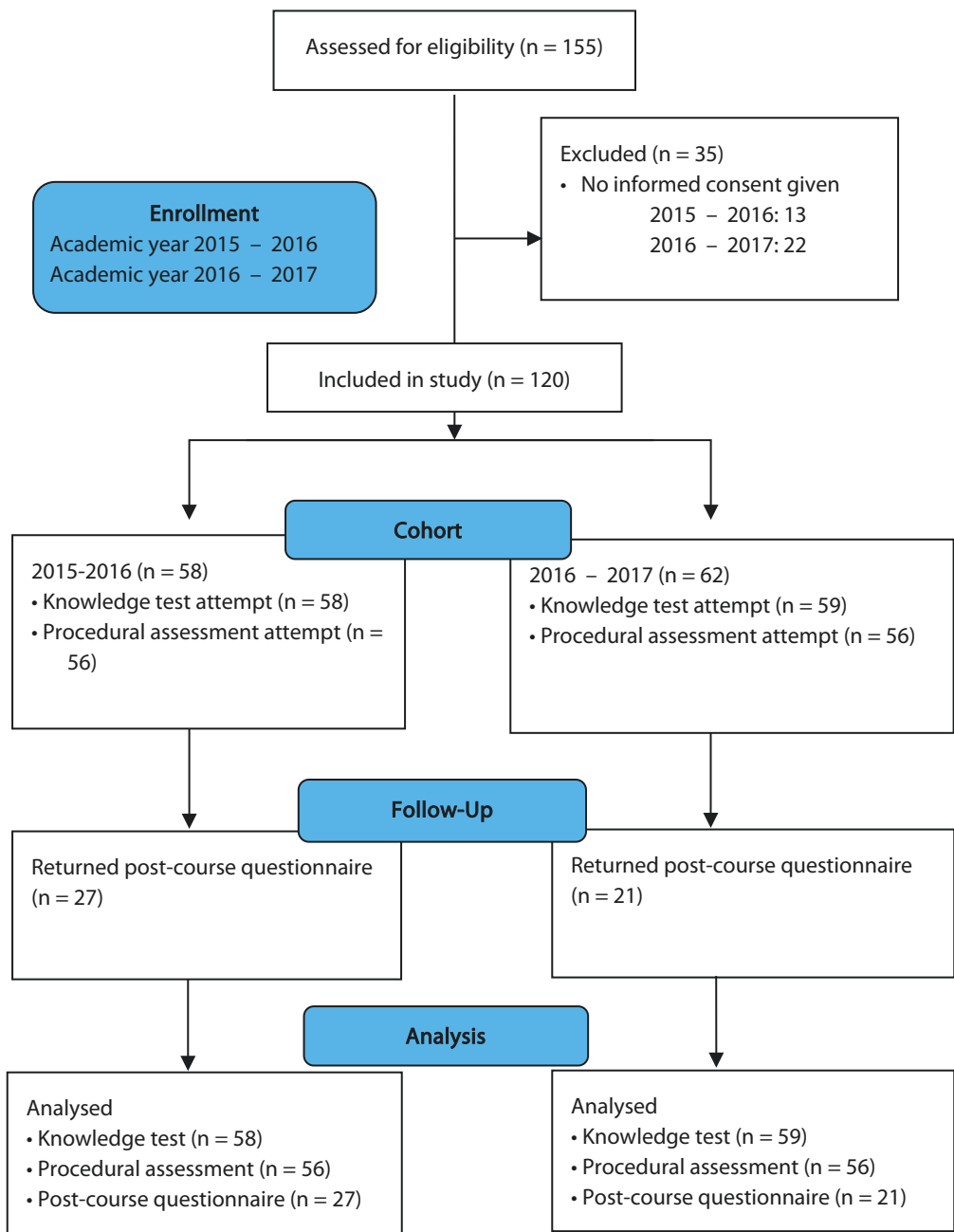
**Figure 3** Grading per skill assessment per time slot of maximum 8 students for both cohorts. **ACEG** Assessment grading of cohort 2015 – 2016; **BDFH** Assessment grading of cohort 2016 – 2017. Top p values depict grades per assessment day, p values within branches depict grading differences within a day. Measurements in green are for day 1, in blue for day 2. Horizontal line is median. 5 = insufficient, 6 – 10 = pass according to Dutch grading scale



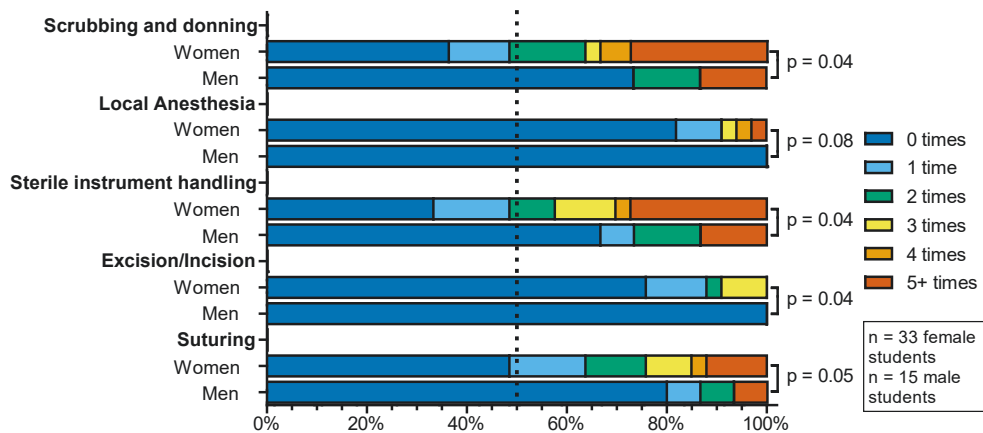
**Figure 4** Post-course questionnaire 2015 – 2016 (n = 27) and 2016 – 2017 (n = 21) **A** Amount of technical surgical skills performed in early clinical rotations **B** Course feedback of students during clinical rotations. OR = operating room

**Original Supplementary Figure 1** is omitted from this overview (only procedure-specific rating scale for suturing was depicted.). Instead, all English translations of Surgical Skills Rubrics are presented as a separate file)

CONSORT 2010 flow diagram – Surgical Skills



*Supplementary Figure 2 Flow diagram of study*



**Supplementary Figure 3** More technical skills were performed by female students for all technical skills ( $p = 0.037$  to  $p = 0.049$ ) except for local anaesthesia which was not often performed among all students. In ordinal regression analysis, lower frequencies of technical skills were associated (Wald  $\chi^2$ ) with male students for scrubbing and donning ( $p = 0.03$ ), sterile instrument handling ( $p = 0.04$ ) and suturing ( $p = 0.050$ ). Male students did not perform local anaesthesia and incision/excision.