



Comparing a «spaced» version of an intensive emergency medicine course with a «compressed» version

Ludwig, J, Plener J, Breckwoldt J

Berlin, Zurich



<p>„compressed“ version: 26 TU in 3 days</p>					
<p>„spaced“ version 26 TU in 4.5 days</p>					



background

Pro «spaced»

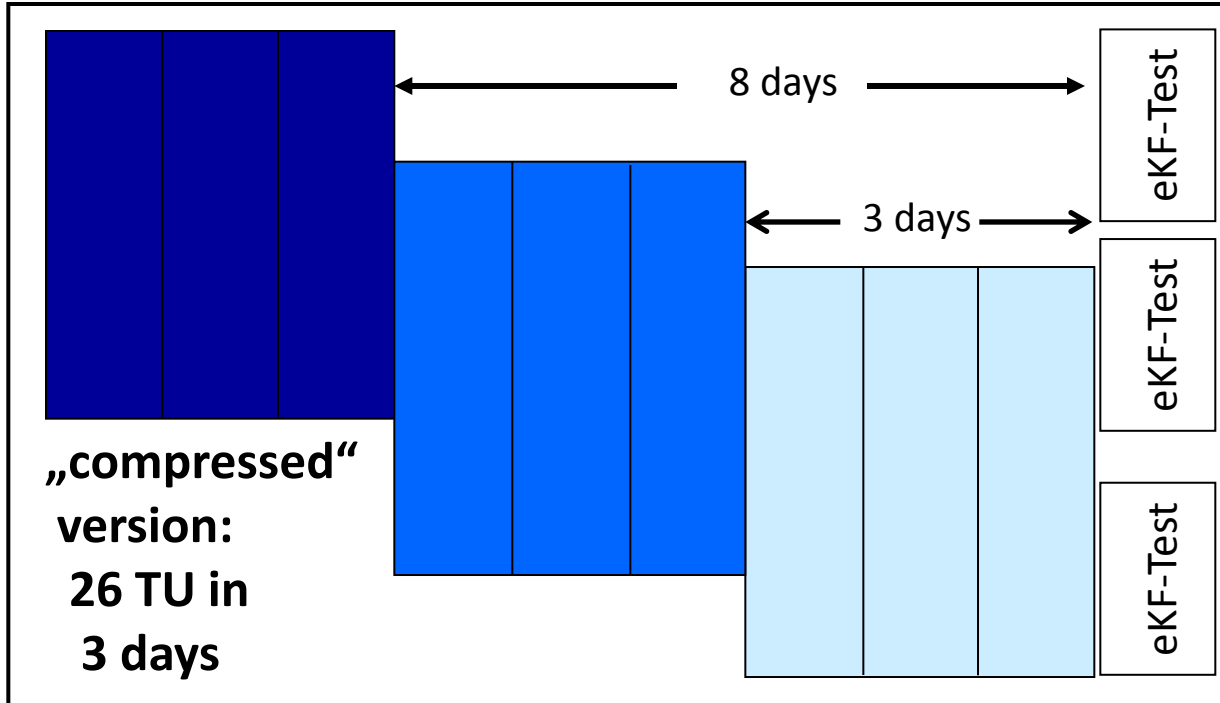
**More time for
elaboration by students**

**Better learning for
testing**

Pro «compressed»

**More economical use of
simulators**

**More efficient time
planning for teachers and
students**



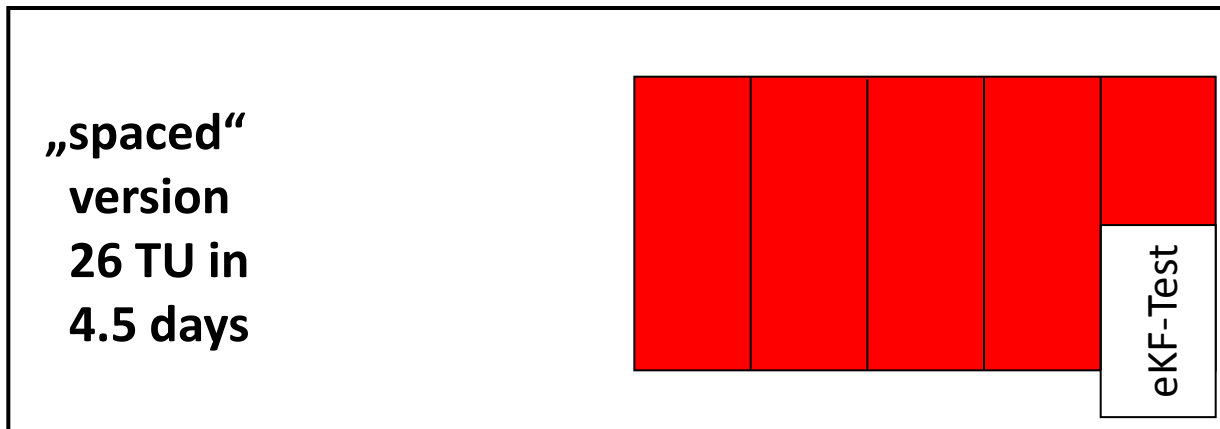
long interval



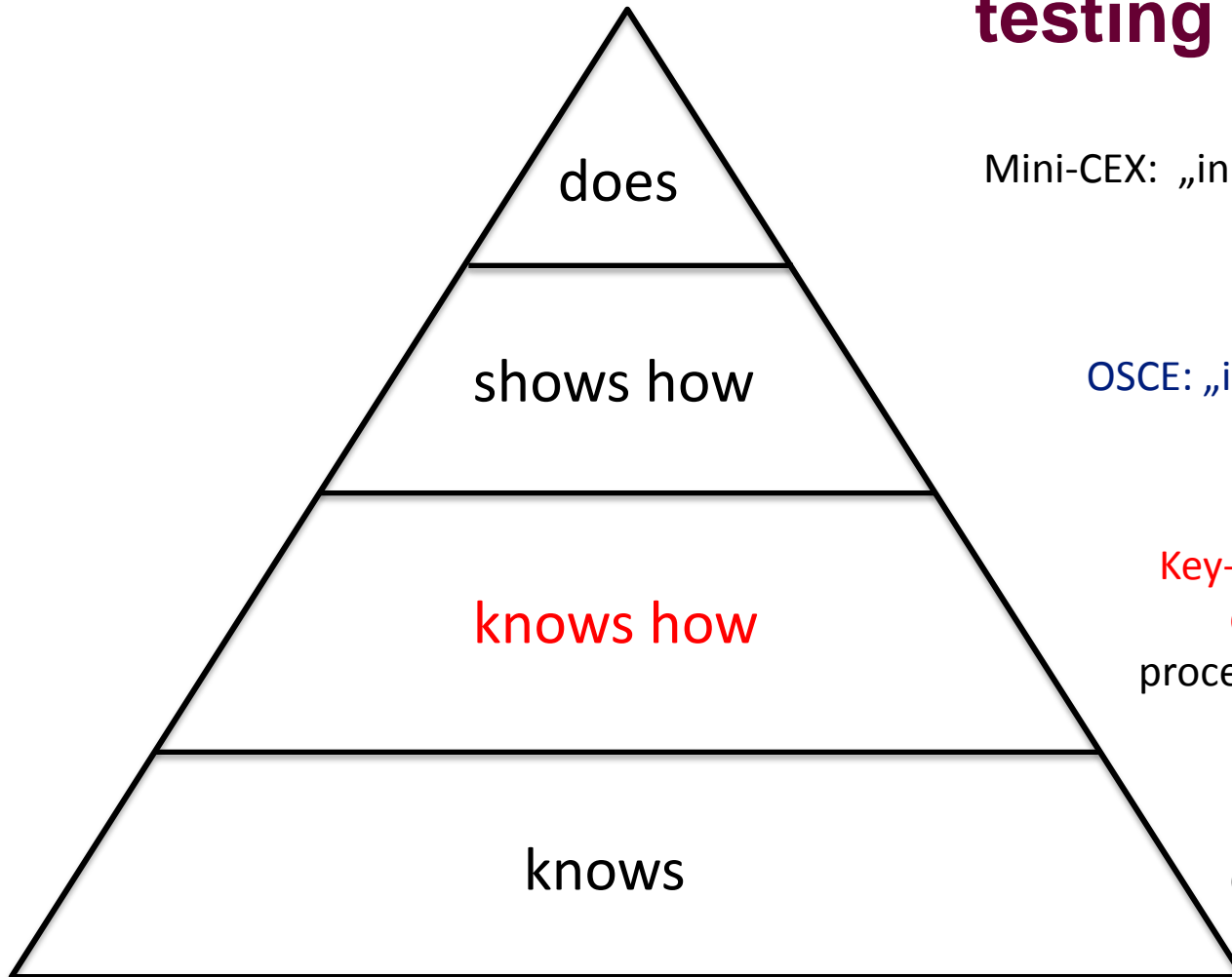
intermediate interval



short interval



short interval



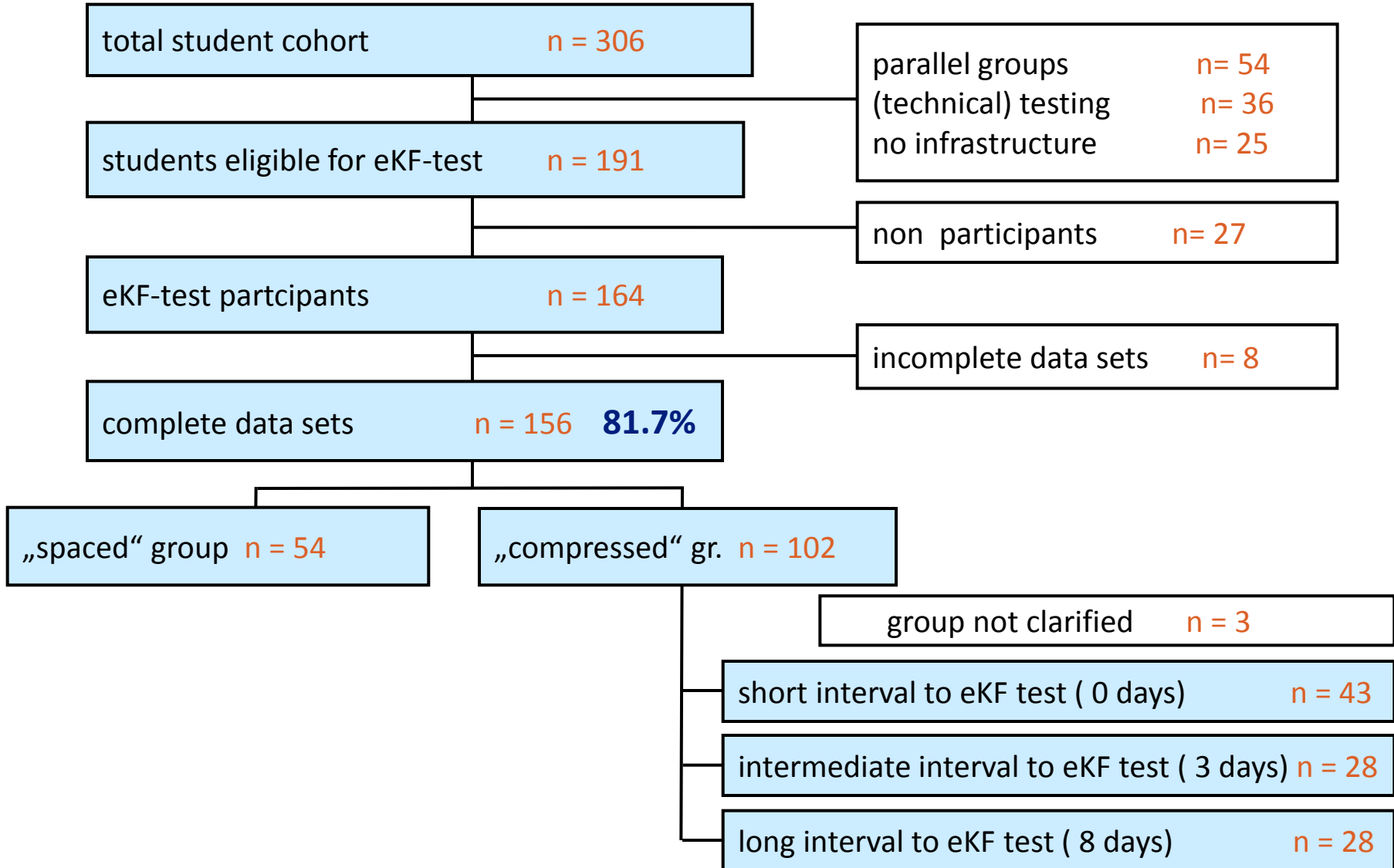
testing

Mini-CEX: „in vivo“

OSCE: „in vitro“

Key-Feature test
case based
procedural Knowledge

MCQ: descriptive/
declarative knowledge





Baseline characteristics

	total cohort	compressed group	spaced group	statist. difference
Gender female	60.3% (n=94)	59.8% (n=61)	61.1% (n=33)	p= 0.87 (n.s.)
Age below 25 y	49.4% (n=77)	56.9% (n=58)	35.2% (n=19)	p= 0.01 (s.)
First language G	82.1% (n=128)	86.3% (n=88)	74.1% (n=40)	p= 0.06 (n.s.)
Prior competencies in Em-Med.	8.3% (n=13)	7.8% (n=8)	9.3% (n=5)	p= 0.76 (n.s.)



Baseline characteristics (2)

	compressed group - total -	compressed group long interval	compressed group Intermediate interval	compressed group short interval	statistical significance
gender female	59.6%(n=59)	53.8% (n=14)	50.0% (n=14)	68.9% (n=31)	p= 0.219 (n.s.)
age below 25 y	58.6%(n=58)	53.8% (n=14)	53.6% (n=15)	64.4% (n=29)	p= 0.558 (n.s.)
first language German	85.9%(n=85)	88.5% (n=23)	82.1% (n=23)	86.7% (n=39)	p= 0.784 (n.s.)
prior competencies in EM	8.1% (n=8)	7.7% (n=2)	10.7% (n=3)	6.7% (n=3)	p= 0.824 (n.s.)



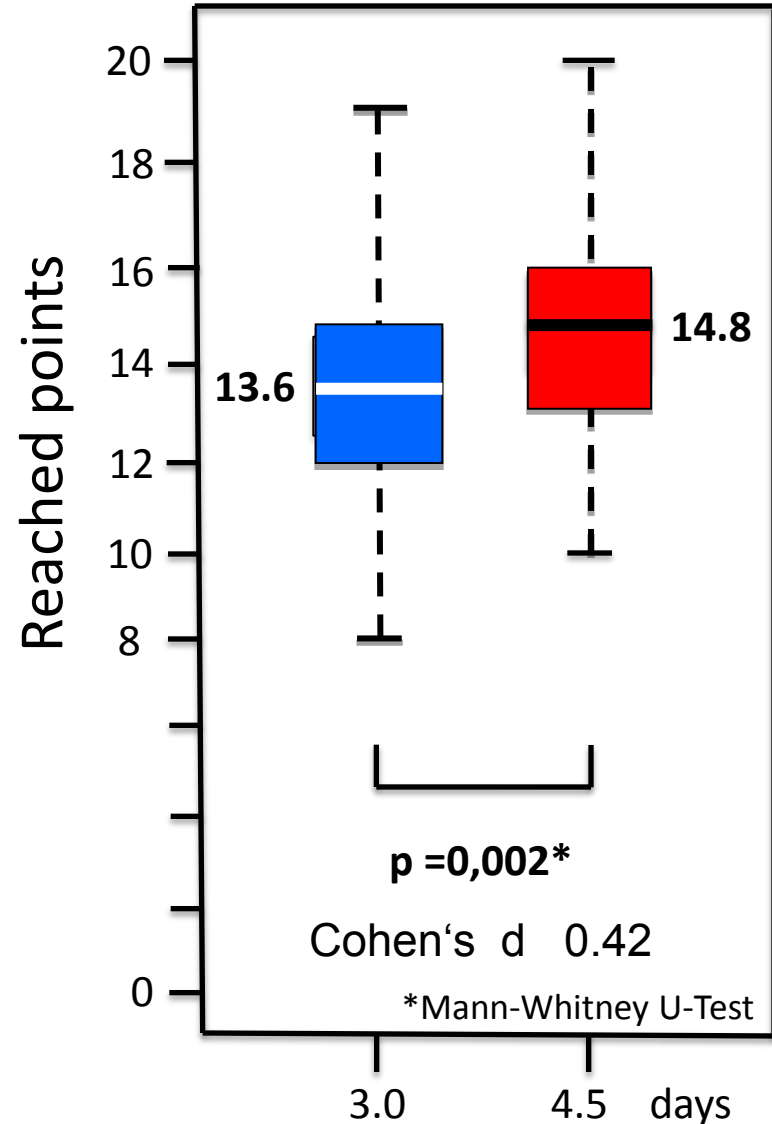
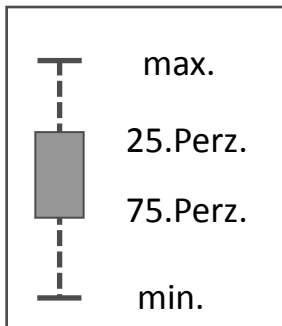
Results of electronic Key-Feature test

compressed group

(26 TU in 3 days)

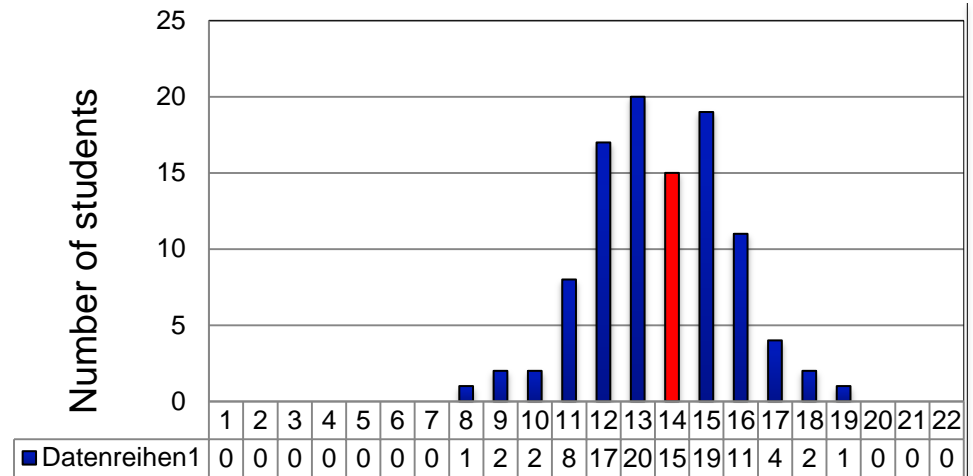
spaced group

(26 TU in 4,5 days)

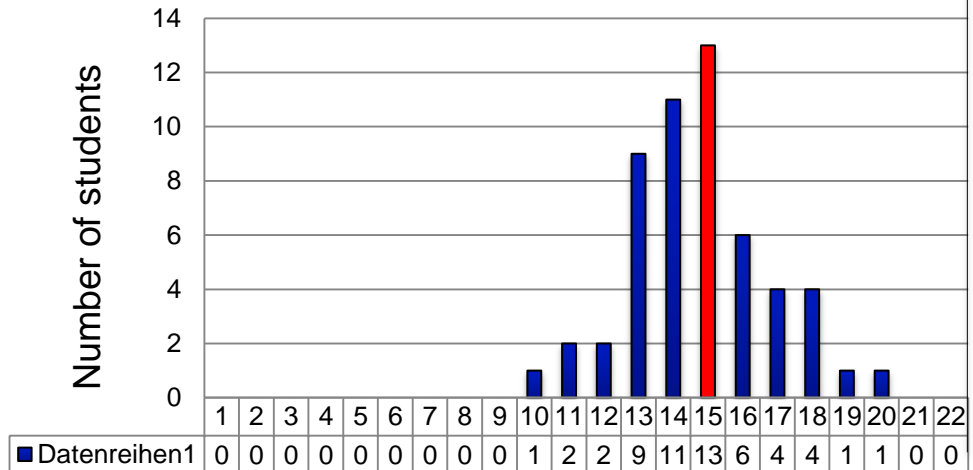




Median „compressed“ group
(102 students)
14 points

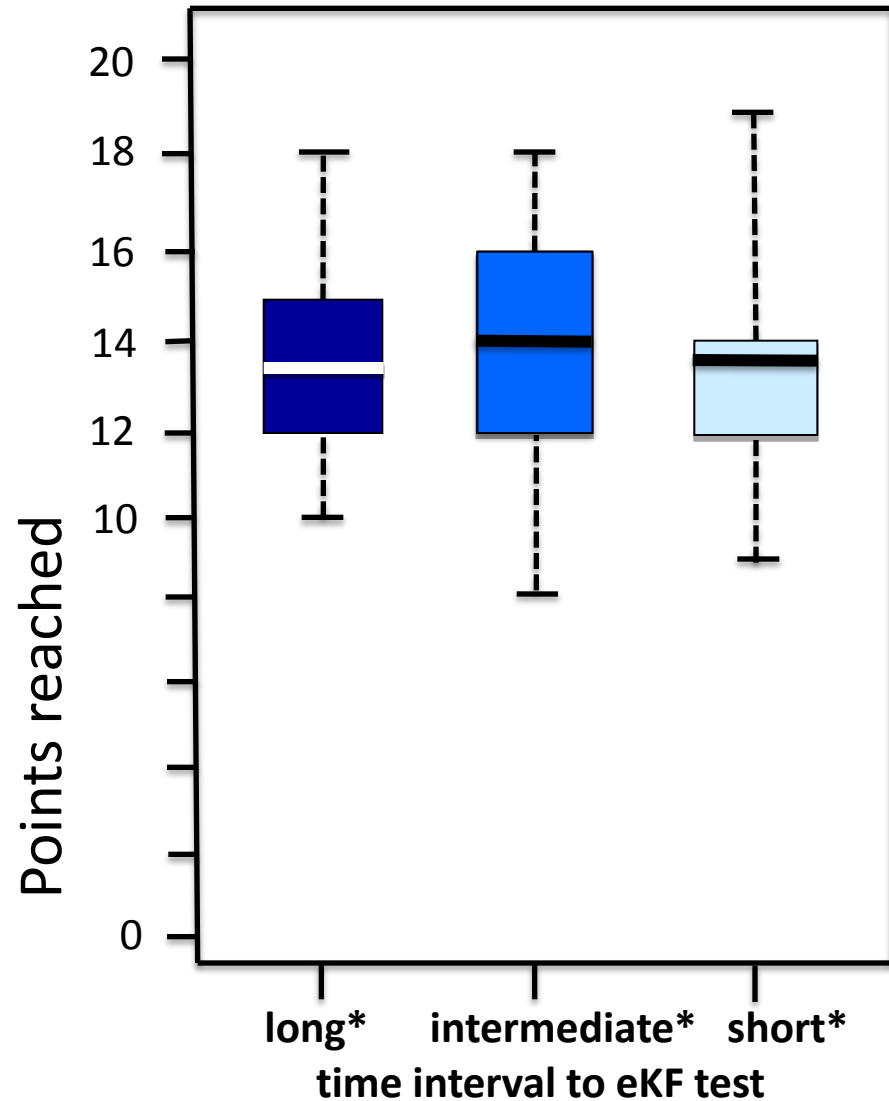


Median „spaced“ group
(54 students)
15 points





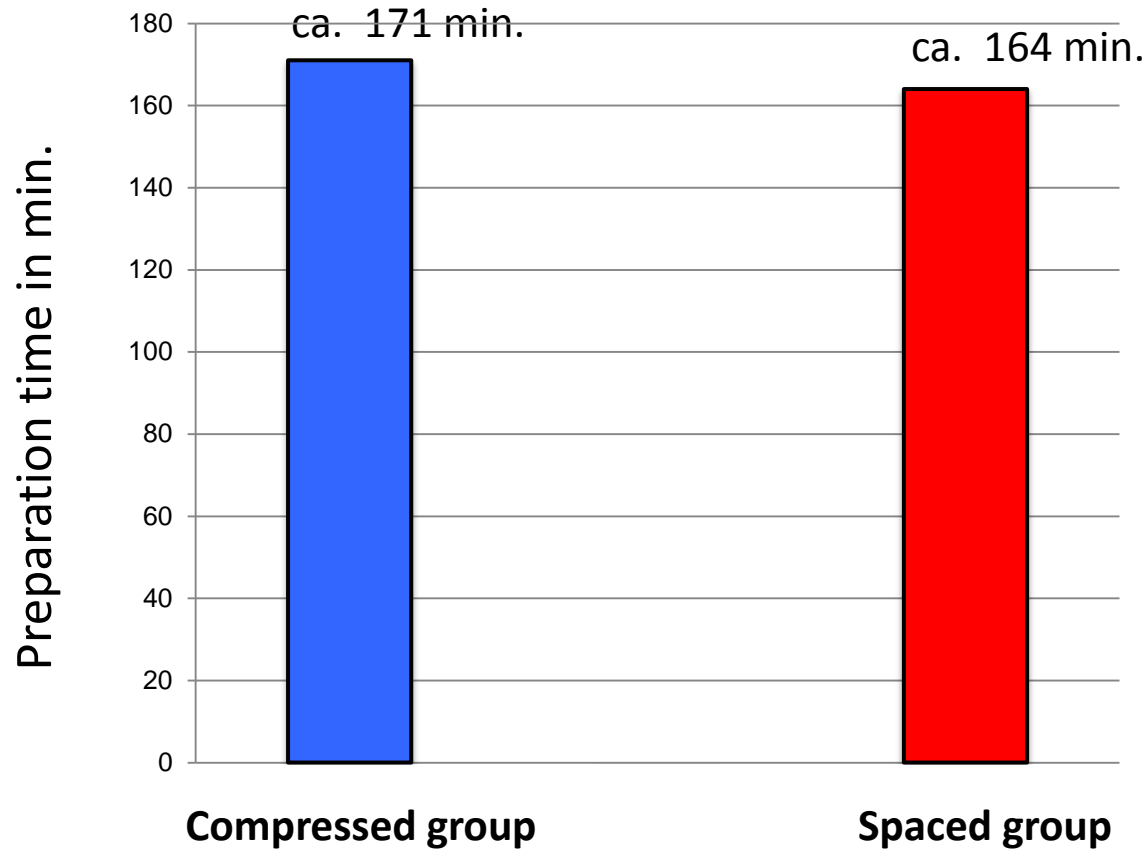
Differences in Relation to time between teaching and eKF test



- * long interval: 8 days
- * intermediate interval: 3 days
- * short interval: 0 days

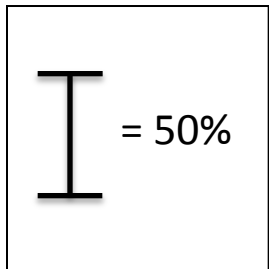
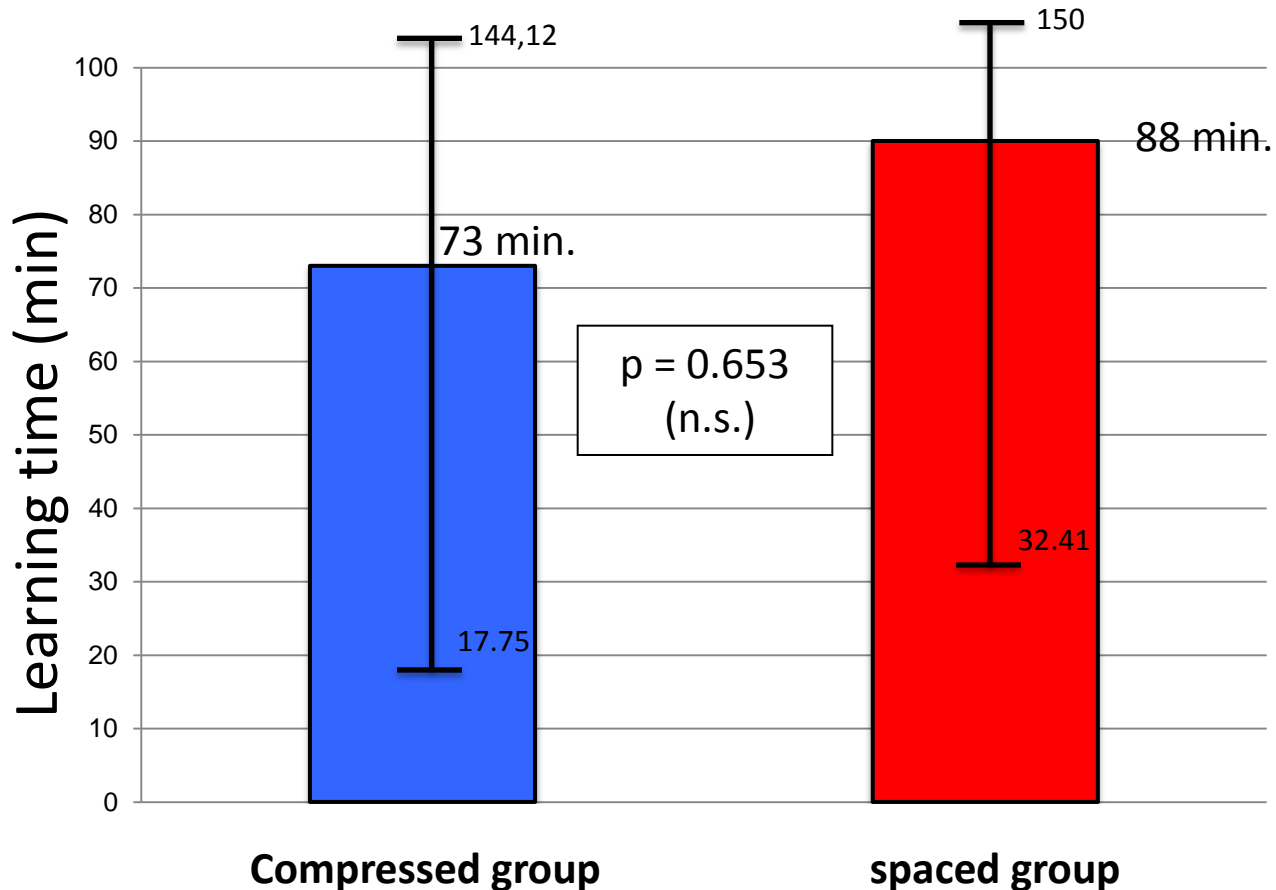


Preparation time per participant (in min)





Learning time per participant (in min)





Learning media (frequency of answers)

	total group	compressed group	spaced group	stat. difference
electronic media	31.4% (n=49)	30.4% (n=31)	33.3% (n= 18)	n.s.
textbooks	58.3% (n=91)	58.8% (n=60)	57.4% (n= 31)	n.s.
skills lab training	13.5% (n=21)	11.8% (n=12)	16.7% (n=9)	n.s.
oral exchange with other students	84.6% (n=132)	79.4% (n=81)	94.4% (n=51)	p = 0.02
oral exchange with other people	39.7% (n=62)	36.3% (n= 37)	46.3% (n=25)	n.s.
dreamed from learning subject	35.3% (n=55)	28.4% (n=29)	48.2% (n=26)	p = 0.02



**Universität
Zürich^{UZH}**

Medizinische Fakultät



Thank you for your attention !

Jan.breckwoldt@dekmed.uzh.ch