

**Development of
veterinary simulators
as an interactive teaching method**

Laura Schüller

Introduction



Introduction



No-name Simulator



Veterinary Simulator Industries

First ideas

- authentic in touch
- full extraction of a calf
- application of lubricants
- use of obstetrical instruments



Learning by doing

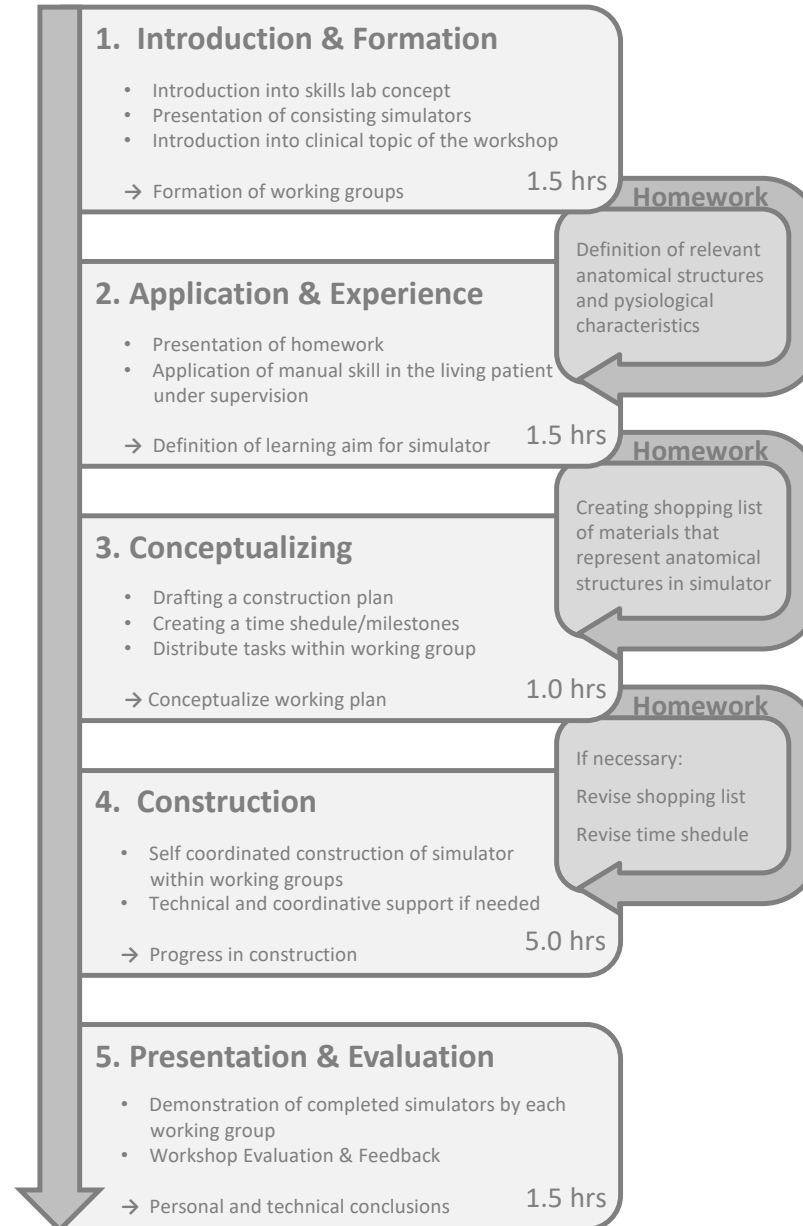
“Profound analysis about the physiology
of parturition and obstetrics”



“Learning experience was
highly valuable and intense”

“Initial planning & coordination
required a lot of time”

Didactic concept



Introduction & formation

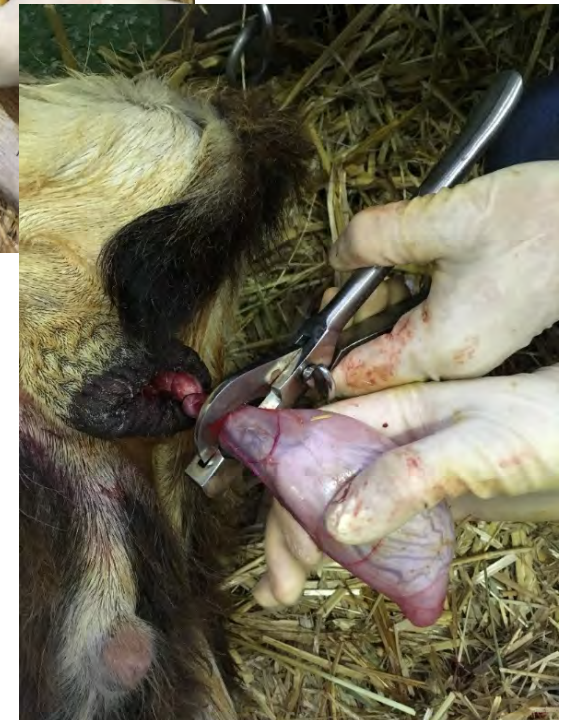
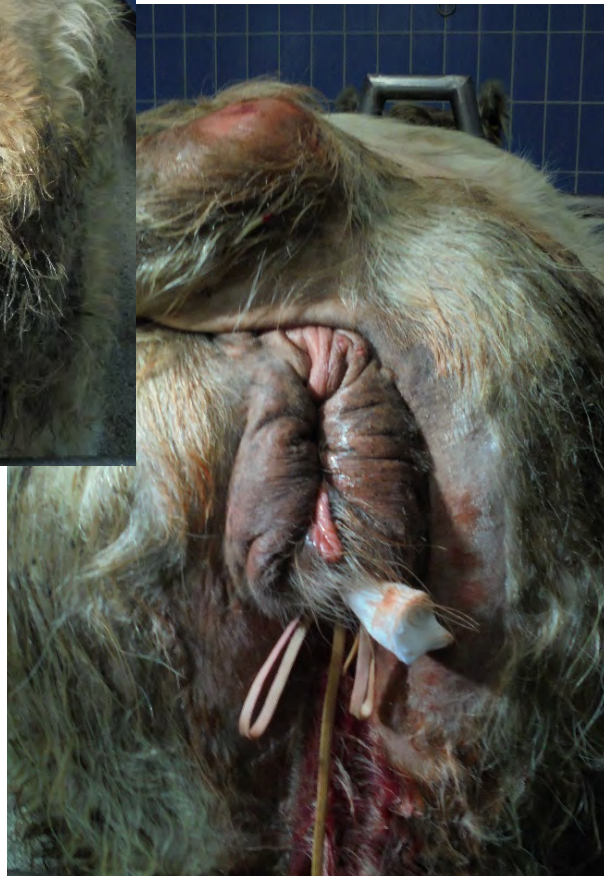


Veterinary Skills Net
Fachbereich Veterinärmedizin



Simulator:	
Anatomical Structure	→ Physiological function & texture (relevance for simulator)
Learning aim(s)	→ Relevant structures (to reach learning aim)
1.	
2.	
3.	
4.	
Homework: prepare 5 minute presentation	

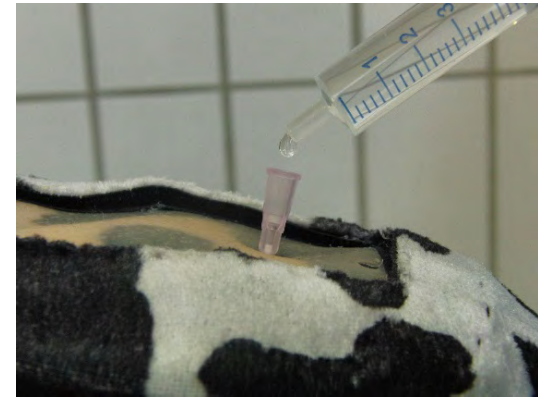
Experience!



Construction



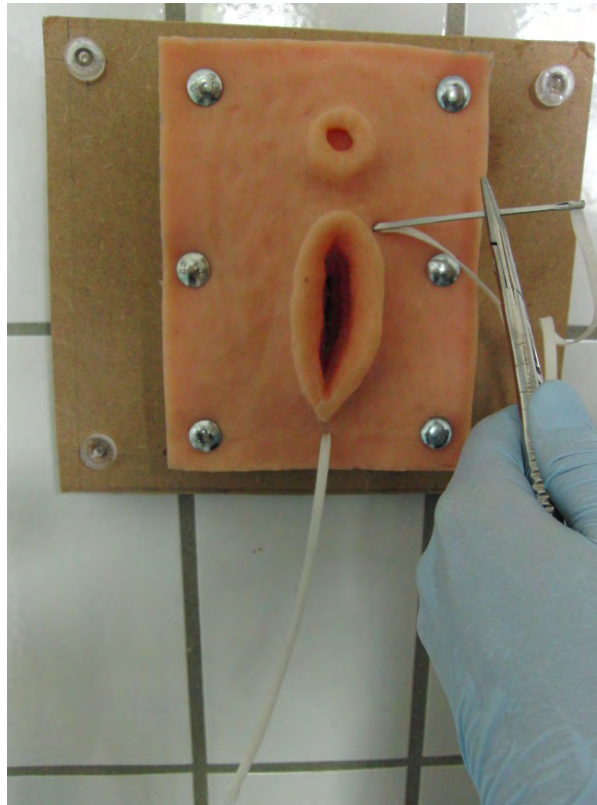
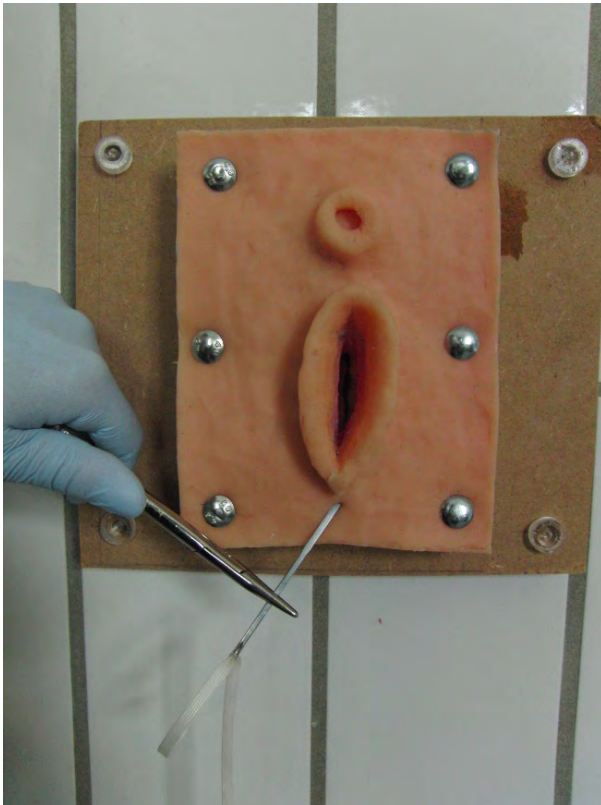
Epidural anaesthesia simulator



Uterine prolaps simulator



Vaginal suture simulator



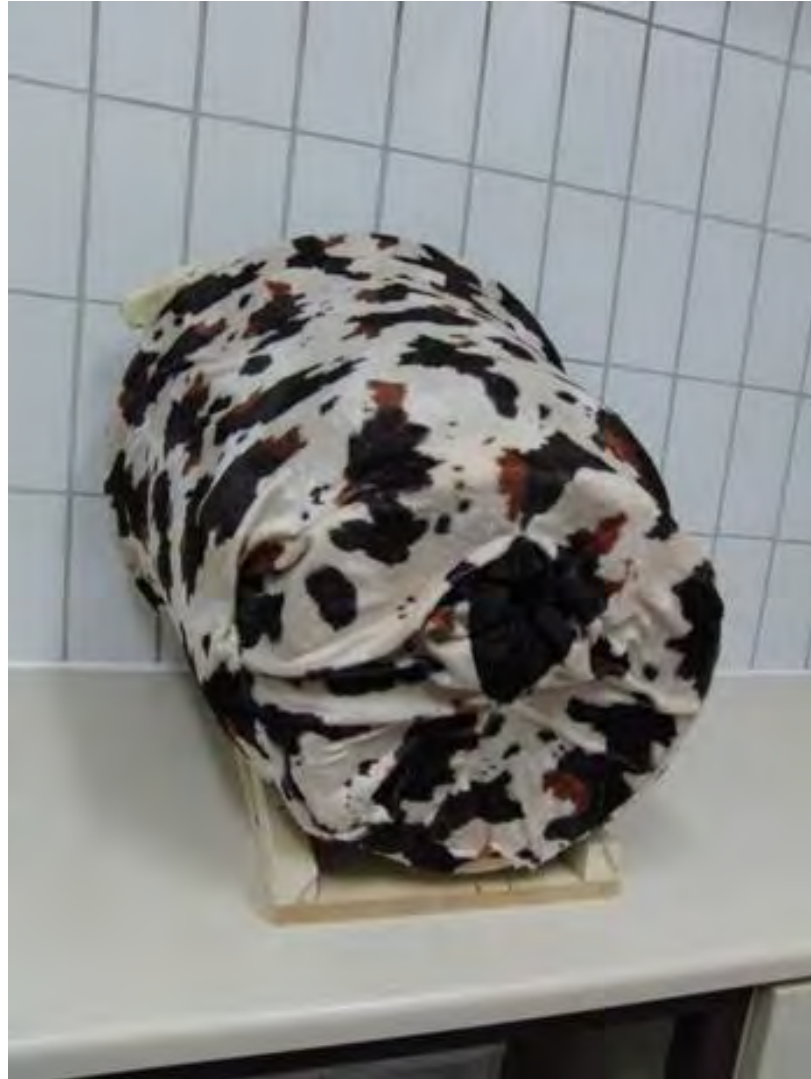
Surgical castration simulator



Non-surgical castration simulator



Rectal palpation simulator



Semen collection simulator



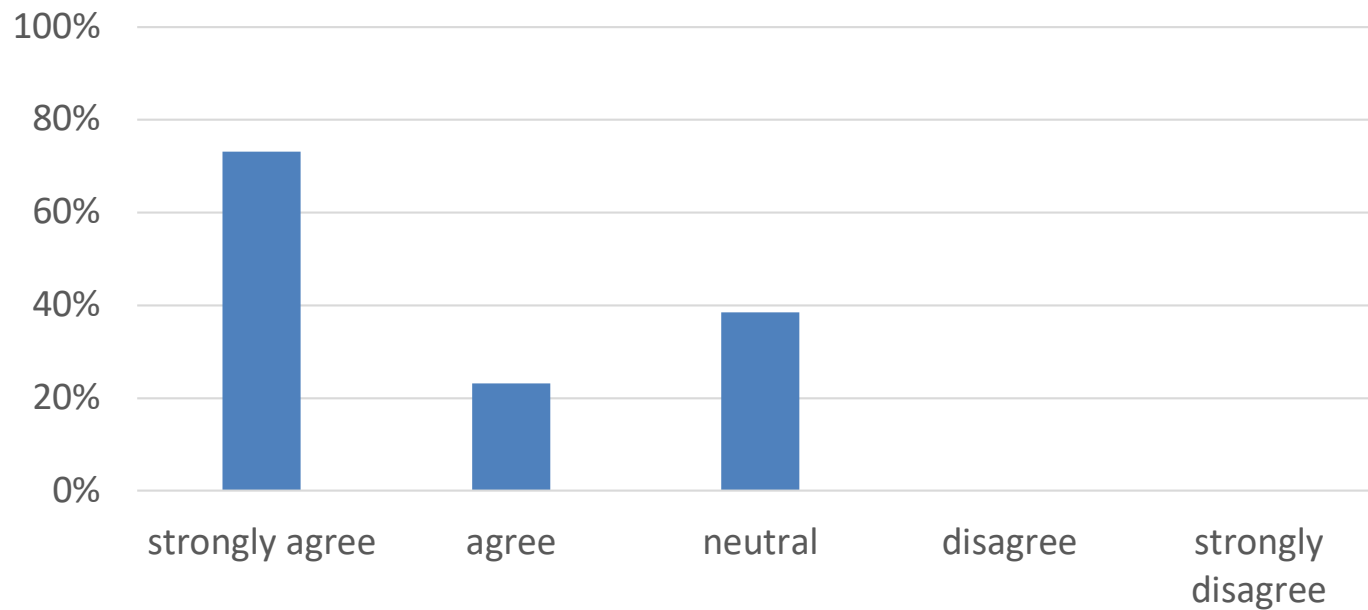
Exhibition



Evaluation



The construction of teaching simulators encourages an intense involvement with the clinical topic

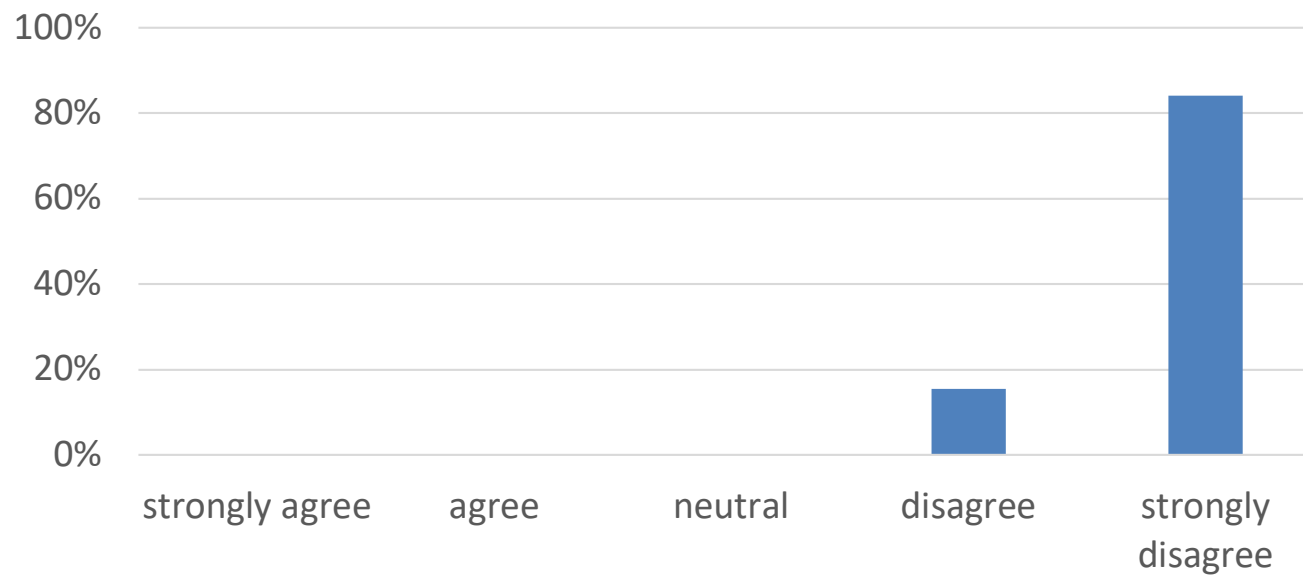


n = 28 students

Evaluation



The construction of teaching simulators within an elective workshop is a waste of time

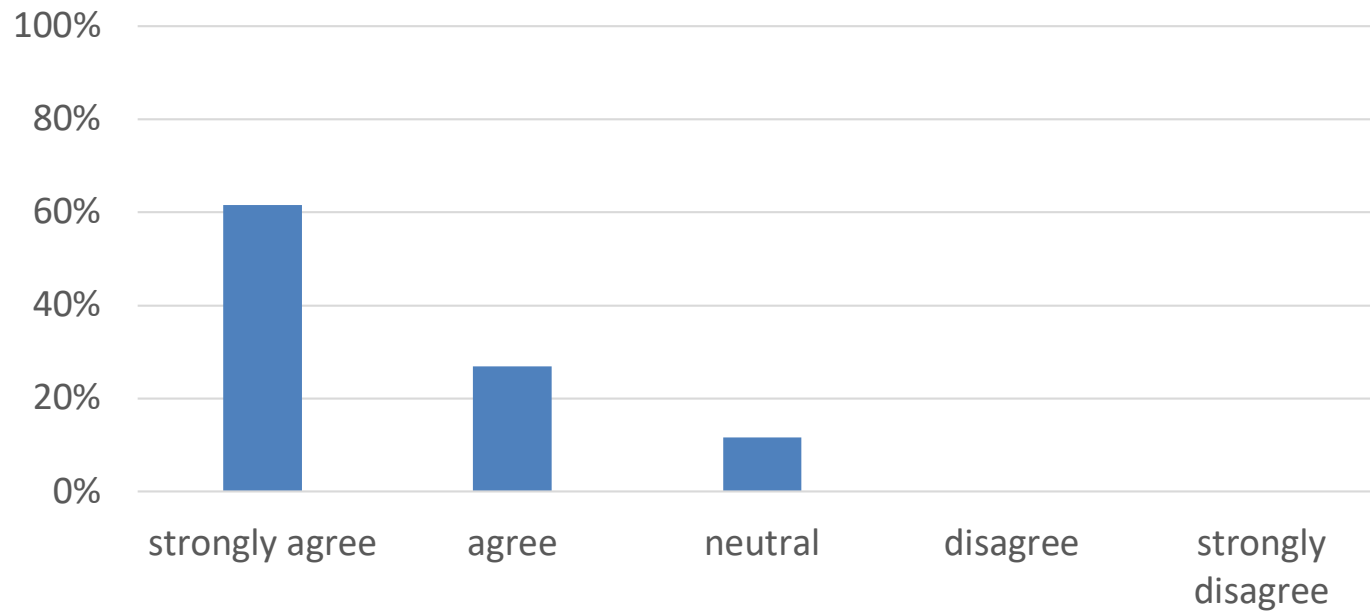


n = 28 students

Evaluation



The planing and construction of teaching simulators
gave me a better understanding of the theoretical
know-how

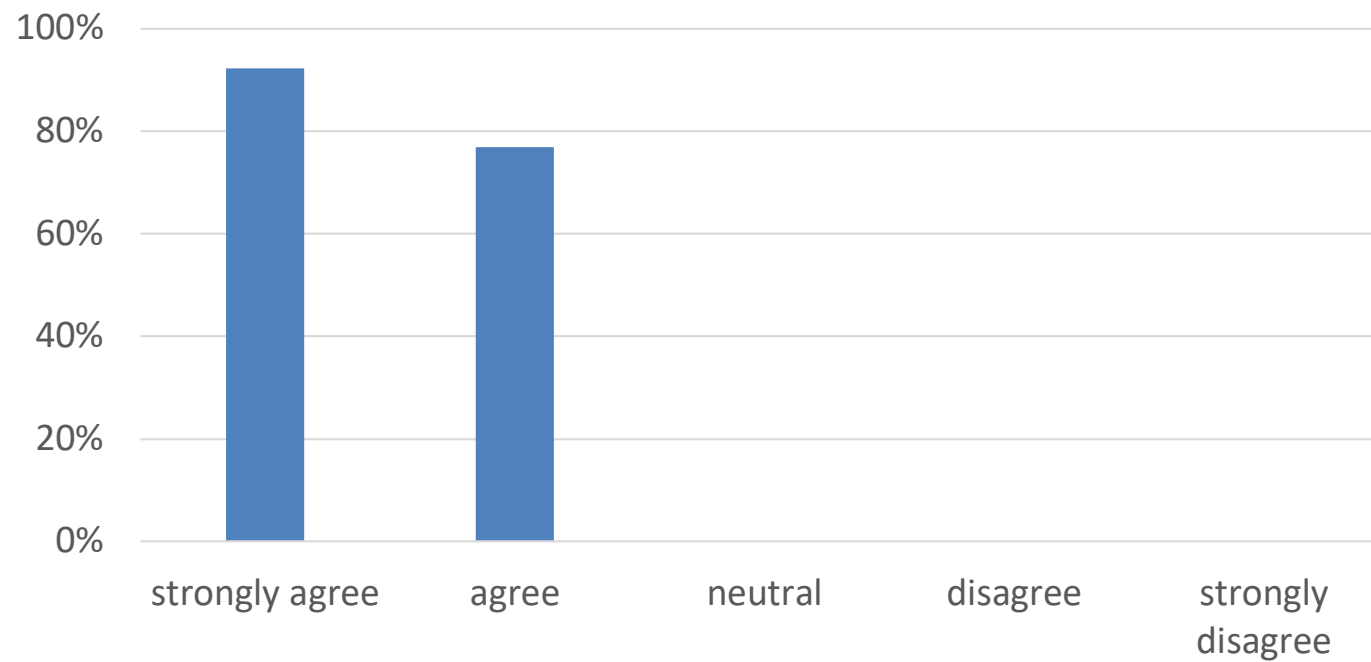


n = 28 students

Evaluation



I would subscribe to this elective workshop again

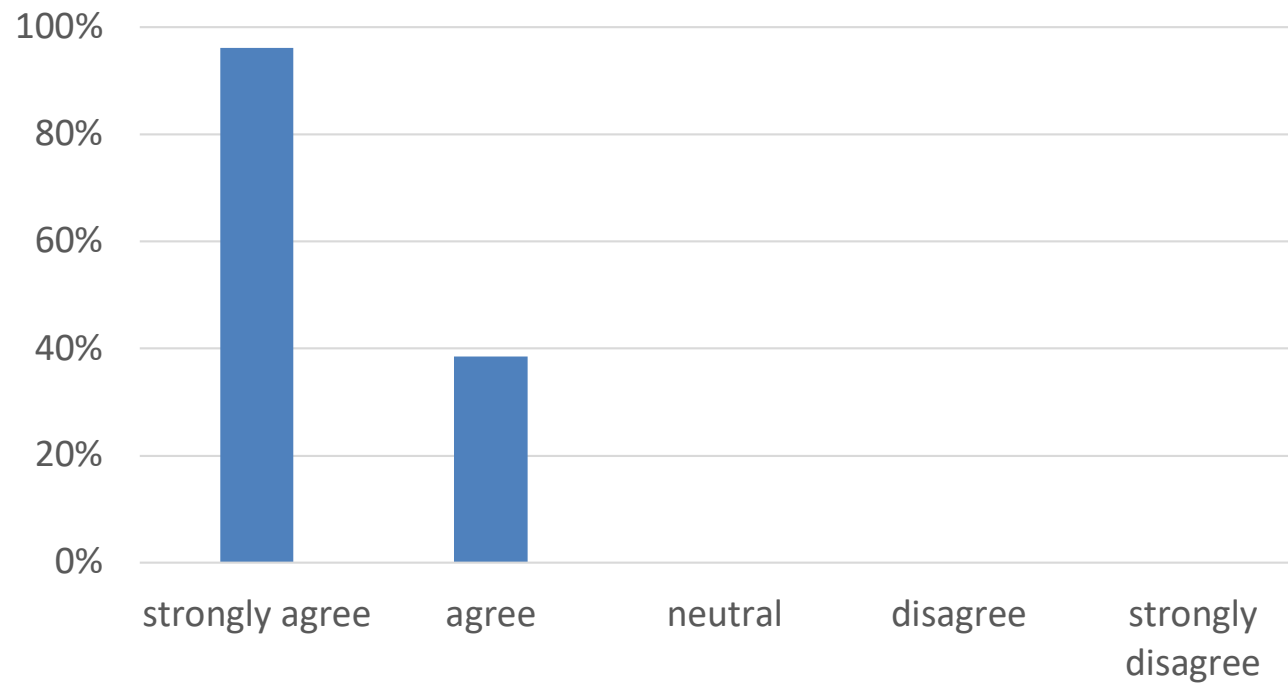


n = 28 students

Evaluation



I would recommend this elective workshop to my fellow students



n = 28 students

Some testimonials

“I was always looking forward to this workshop during my weekly routine”

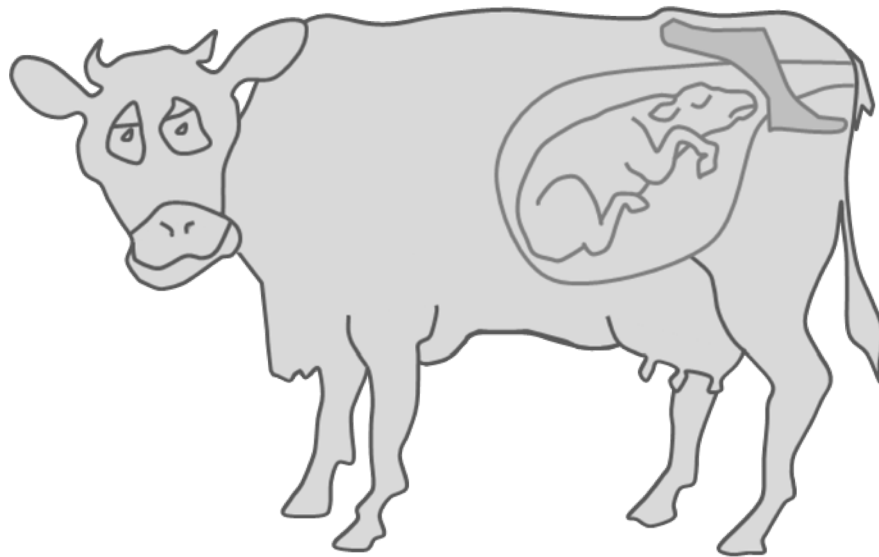


“a lot of fun”

“The workshop offered a great variety compared to other more theoretical and courses”

“I liked the teamwork”

C-section simulator



- vaginal/rectal examination
- preparation
- application of drugs
- incision
- localisation/development of calf
- suturing



C-section simulator



C-section simulator



C-section simulator



Suturing



C-section simulator



Gyn dog





www.vetmed.fu-berlin.de/skills-net



www.facebook.com/vetskillsnet



[vetskillsnet](https://www.instagram.com/vetskillsnet)

Introduction



vet skills net

FU Berlin - FB 08

Lernstationen

Manual
Skills Lab

Social
Skills Lab

Scientific
Skills Lab

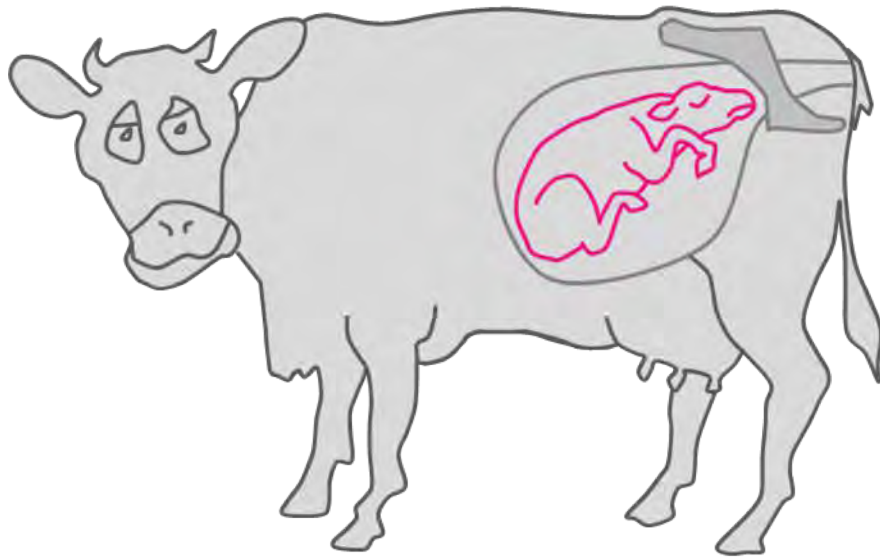
Evaluati

Question	Relative Answers (%)					
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	n
I already heard about the concept of a manual skills lab for veterinary students before the workshop	14.3	21.4	14.3	28.6	21.4	28
I heard the first time about the concept of a manual skills lab within this workshop	14.3	10.7	17.9	21.4	35.7	28
I like the concept of a manual skills lab	78.6	21.4	0.0	0.0	0.0	28
The implementation of a manual skills lab at the veterinary campus is important	82.1	17.9	0.0	0.0	0.0	28
I like the concept of developing teaching simulators within an elective workshop	82.1	17.9	0.0	0.0	0.0	28
The construction of teaching simulators encourages an intense involvement with the clinical topic	73.1	23.1	3.8	0.0	0.0	26
The construction of teaching simulators within an elective workshop is a waste of time	0.0	0.0	0.0	15.4	84.6	26
The planing and development of teaching simulators enriches the learning process	69.2	23.1	7.7	0.0	0.0	26
The planing and construction of teaching simulators gave me a better understanding of the theoretical know-how	61.5	26.9	11.5	0.0	0.0	26
The manual labour in this course was a welcome variety in the curriculum	88.5	3.8	7.7	0.0	0.0	26
I would subscribe to this elective workshop again	92.3	7.7	0.0	0.0	0.0	26
I would recommend this elective workshop to my fellow students	96.2	3.8	0.0	0.0	0.0	26



Methods

2 elective hands-on modules for 18 veterinary students

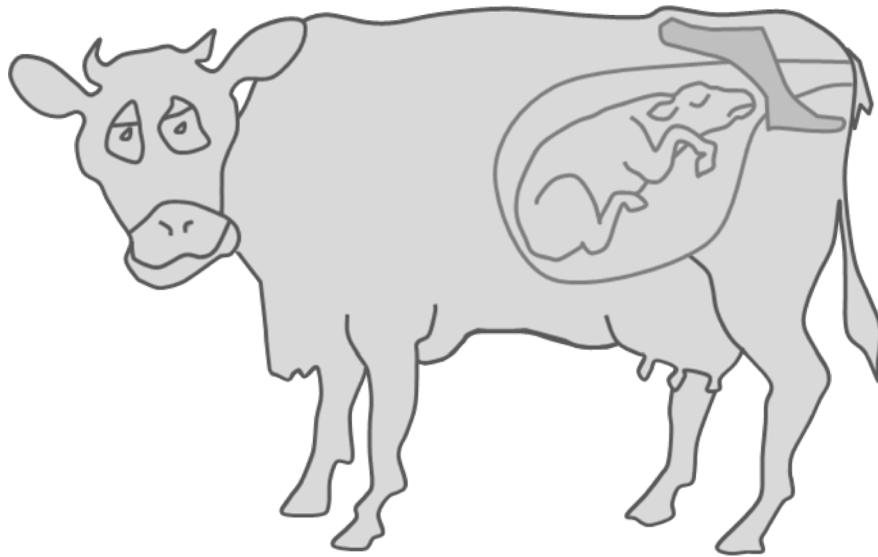


working groups :

- 1) uterus, cervix and vagina
- 2) pelvis
- 3) external genital organs
- 4) outer framework
- 5) calf

Methods

2 elective hands-on modules for 18 veterinary students



working groups :

- 1) uterus, cervix and vagina
- 2) pelvis
- 3) external genital organs
- 4) outer framework
- 5) calf

1. Module:

Preparation and construction
in working groups

2. Module:

Practical experience
and evaluation