

Hauptseminar / Master seminar

Virtual and Augmented Reality in the Medical Domain (Focus: Simulation Environments for Medical Education)

Philipp Stefan, Patrick Wucherer, Prof. Nassir Navab

Agenda (Apr/14, 2016)

1. Writing a report (10 min.)
2. Group selects topic (5 min.)
3. Next steps (5 min.)
4. Simulator demo (45 min.)

Goals of the seminar

1. **Read** scientific papers
2. **Write** a scientific report (in English)
3. Do a scientific **presentation**

Best practices in literature research

Access papers at home

- TUM VPN
 - <http://www.lrz.de/services/netz/mobil/vpn/index.html>
- Proxy:
 - http://www.lrz.de/services/netzdienste/proxy/browser-config_en/

Literature collection

- Zotero

Literature analysis

- FreeMind

Important Journals & Conferences in research domain

Conferences

- IPCAI
- ISBI
- CARS
- MICCAI
- ISMAR
- An International Association For Medical Education

Journals

- BMJ Quality and Safety
- Annals of Surgery
- Surgery
- American Medical Informatics Association (Amia)
- Engineering in Medicine and Biology Society (EMBS)
- Workshop on Biomedical Image Registration (WBIR)

Focus on writing a report

Process



What is a report?

A report is a systematic, well organized document which defines and analyses a subject or problem, and which may include:

- the record of a sequence of events
- interpretation of the significance of these events or facts
- evaluation of the facts or results of research presented
- discussion of the outcomes of a decision or course of action
- conclusions
- recommendations

Reports must always be:

- accurate
- concise
- clear
- well structured

Joint writing of report (1)

Structure

- Title page
- Acknowledgements
- Contents page
- Terms of reference

0) Abstract (all) -> each student is handing in abstract

1) Introduction (X)

2) Materials and methods (X)

3) Results (X)

4) Summary/Conclusion + Recommendations (X)

- Appendices (all)
- References (all)
- Bibliography (all)
- Glossary (all)

Joint writing of report (2)

Topics

- Validity of assessments
- Performance metrics
- Barriers for simulation-based training of surgeons
- Immersion in simulated OR: Human sensory channels
- (Robotic in surgery)

General information

- Group of 4 students commit to 1 topic
- Group has one group leader -> communicates with mentor
- Dropbox is used for file exchange
- Meetings have to be coordinated with mentor

Next steps

1. Details sent by your mentor
2. Simulation center visit Apr/29, 2016 @ Klinikum Innenstadt