Editorial

High quality medical education is a cornerstone for the work of health professionals.

Text: Prof. Dr. phil. Sissel Guttormsen Schär, 18.06.2020

2019

High quality and priorities matter in medical education

High quality medical education is a cornerstone for the work of health professionals. Professional development and the continued development of people and organisations are relevant issues in both pre- and post-graduate activities. IML's vision statement reflects this and bridges education with the subsequent professional career and the needs of the patients: IML supports the competency development of healthcare professionals to ensure optimal patient care.

Self-speaking, this mission can only be accomplished when all parties in multifaceted organisations support competency development and exchange experiences and new insights. In this context, continuous development, research and networking are important means to the end at the IML. In the following, some examples illustrate our activities in 2019.

Providing timely solutions for medical education is a key task of the IML. In 2019, AUM started to produce videos to demonstrate and to support that our students are performing clinical tasks and procedures correctly. More than 40 learning videos demonstrating the particular curricular clinical-skills-training-tasks have been produced to date. The video-production was supported by students and experts of the different clinical disciplines. IML`s new video studio and team supports the high quality of the videos. During the initial production in 2019, we did not know how very useful these videos should become during the spring season 2020, during the Corona lock down.
Also, the professionalism and networking for the work with simulated patients is an important task in the AUM. In 2019, Dr. med. Beate Brem was elected as Member of the Board of Directors of the Association of Standardized Patient (SP) Educators (ASPE). ASPE engages in providing an international network for the new field of human simulation, develops *"Standards of Best Practice"* and certification in working with SPs.
A key research area related to teaching and e-learning is related to patient-provider-communication which constantly nurtures our learning tool developments and active teaching (new grants are mentioned below).

The Master of medical education programme (MME) is continuously adapting to developments in research and the needs of the participants. Qualitative research is an important approach in the area of medical education, consequently the MME participants need to gain such skills. Therefore, a new course in qualitative research was

launched in February 2019. It complements the already existing course activities in quantitative research. We could win team members of Prof. Lorelei Lingard, Center for Educational Research & Innovation, Western University, London Ontario (CAN) for this course: Profs. Sayra Cristancho, and Mark Goldszmidt.
Also, the 2019 MME cohort discovered a new destination for their international study week at the end of the MME programme. In July 2019 they travelled to the University Medical Center in Utrecht (UMCU) to learn about the «Research and Development of Education at UMCU» headed by Prof. Olle ten Cate, best known as the person who introduced the concept of "*EPAs*" (entrustable professional activities). A particular fruitful offspring of this meeting was a publication about *"Learning analytics in health professions education"* which was written in cooperation with the visiting MME-participants and Prof. Olle ten Cate.

Assessment continues to be a particular competency of the IML, both method and tool development are high priority matters. Currently 2 PhD projects with focus on assessment are running and further research and development activities address a broad spectrum of assessment issues including Entrustable Professional Activities, Multisource Feedback and assessment of communication competencies.
The departments AAE and ASCII cooperate to maintain and keep the e-assessment software suite "Examic" at the front regarding both methodological and technological fitness. Our experience and research on assessment informs our tool development and a broad spectrum of assessment services.
In 2019, we also introduced a new set of 550 tablet-computers, replacing and expanding the prior stock being in service the last 5 years. At the same time, we finalised the stepwise transmission of moving from paper-based to tablet based exams at the medical faculty in Bern. Since 2019, all exams at the medical faculty run on tablets with IML's Examic® software.

The following new grants are illustrative for the IML activities and mission also beyond 2019:

- *Participation in an EU Project on clinical reasoning*: Insufficient clinical reasoning (CR) skills are a major cause of cognitive errors in patient care. Yet, there is a lack of explicit teaching of CR in the training of healthcare professionals. To close this gap, Prof. Sören Huwendiek (AAE) and Dr. Felicitas Wagner (AAE) take part in an EU-wide project in which the IML will work together with European partner universities and institutions to develop a CR-curriculum and a train-the-trainer course for lecturers.
- *Research on effective Health provider communication*. IML, Prof. Sissel Guttormsen lead a Swiss cancer league project together with the department of Palliative Care at the Inselspital, Prof. Steffen Eychmüller. The project aims at supporting health professionals to improve communication about approaching death.
- Further approved grants in 2019 further illustrate our orientation and networking:
    - **Health 2030, Project grant:** Precision Medicine frONtLINE a multi-support learning platform on Precision Medicine for the daily practice of frontline care professionals. Project head: Idris Guessous HUG/UNIGE. Co-Applicants: Prof. Sissel Guttormsen, Prof. Jacques Cornuz, Unisanté/UNIL, Prof. Gérard Waeber, CHUV/UNIL
    - **ERS (European Respiratory Society)/PhD-Grant:** *«How to improve continuing professional development to foster physician's competencies & patient treatment»*. PhD Advisor: Prof. Sören Huwendiek, PhD student: Sai Sreenidhi Ram
    - **SSGIM (Swiss Society of General Internal Medicine)**: *«Definition of Competencies for Attending Physicians in General Internal Medicine Departments in Swiss Hospitals: a multicenter qualitative study»* SGAIM Foundation Award. Project partner: Department of General Internal Medicine, Inselspital, University Hospital Bern, Dr. med. Christine Roten, Dr. med. Martin Perrig and Dr. med. Christoph Berendonk, IML

Needs of professional health providers and patients are constantly evolving. High quality and priorities matter, that is why we at the IML continue to adopt to the needs of our faculty, partners and customers.

Sissel Guttormsen

June 2020

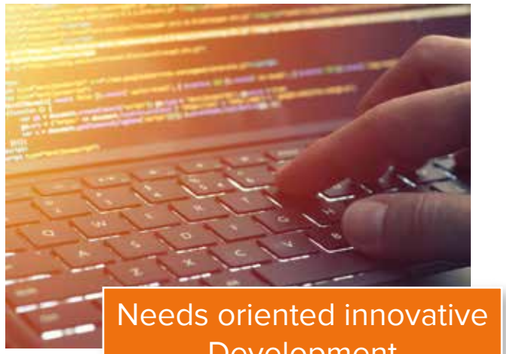
Prof. Dr. phil. Sissel Guttormsen Schär
Director IML

+41 31 631 62 01

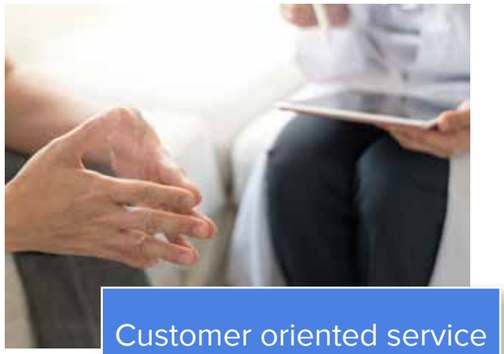
sissel.guttormsen (at) iml.unibe.ch

Key Activities

Supporting and delivering Education

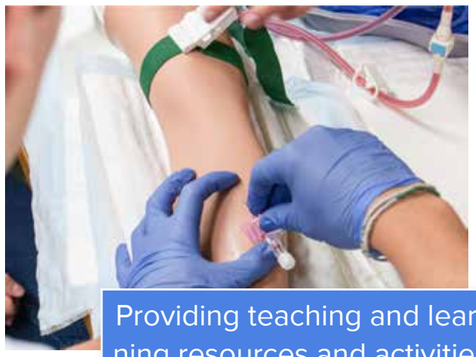


Needs oriented innovative Development

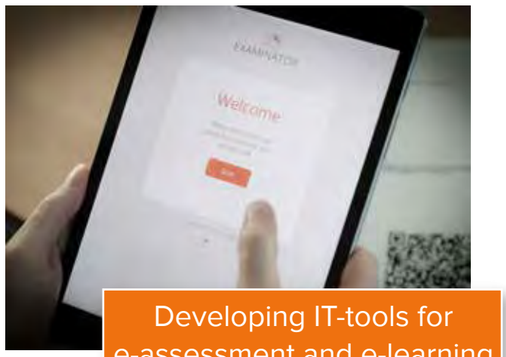


Customer oriented service

Evolving Medical Education through research



Providing teaching and learning resources and activities



Developing IT-tools for e-assessment and e-learning

Training medical educators (MME)

Developing, conducting and delivering exams

IML Vision and Mission

Vision

IML supports the competency development of healthcare professionals to ensure optimal patient care

Mission

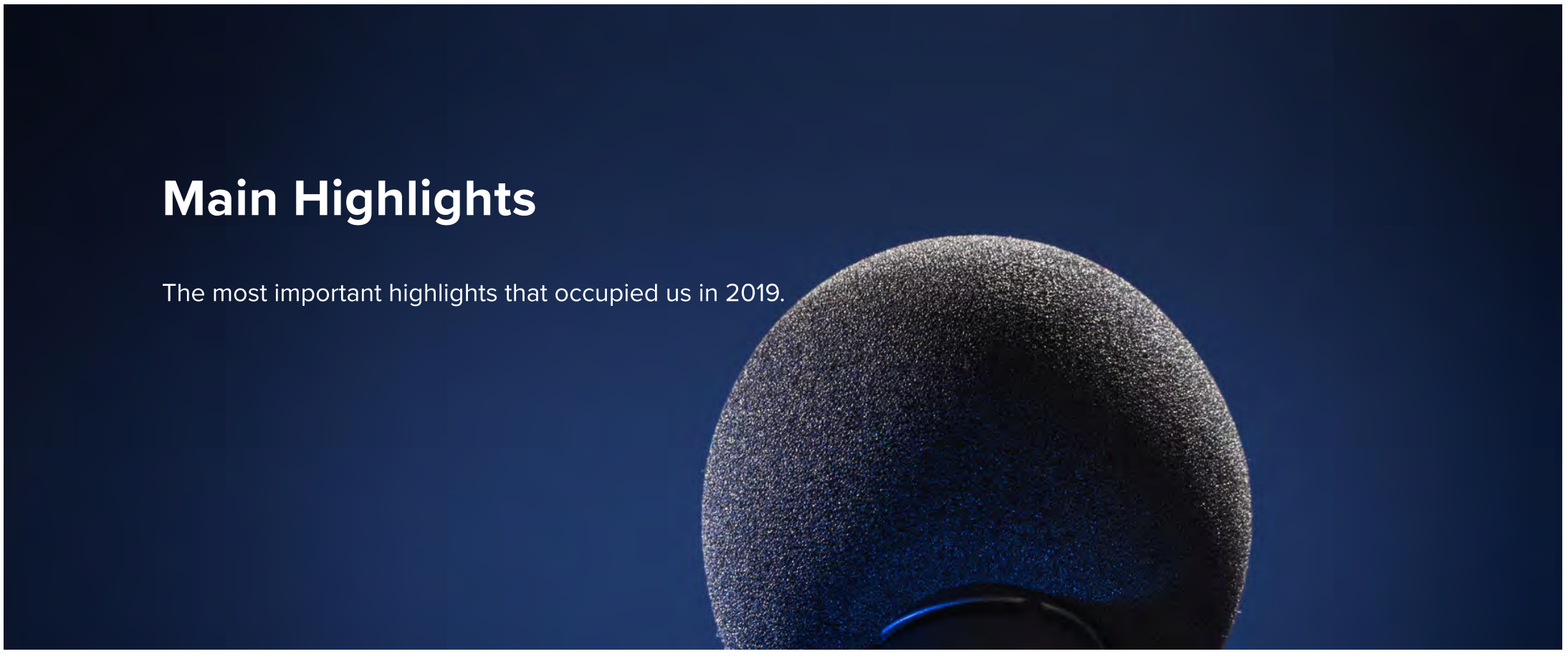
We support Bern University Medical Faculty and our partners in staying at the forefront of medical education

We promote and foster innovation in teaching

We actively shape the digital transformation of teaching and assessment

We advocate and drive development in medical education through research

We nurture future leaders in leading advancements in healthcare education



Main Highlights

The most important highlights that occupied us in 2019.

11.06.2020

2019

Highlights

EU-Project: *«Developing, implementing, and disseminating an adaptive clinical reasoning curriculum for healthcare students and educators»,* Project coordinator: University of Augsburg, Project head: PD, Dr. med. Inga Hege. Project partner IML: Prof. Dr. Dr. med. Sören Huwendiek, MME.
More details

Swiss Cancer League: *"Communication with cancer patients and their families about approaching death: Scaffolding conceptual and practical learning for health professionals."* Project head: Prof. Dr. phil. Sissel Guttormsen. Project partner: Prof. Dr. med. Steffen Eychmüller, University Centre for Palliative Care (UCPC), Insel University Hospital Bern.
More details

ERS (European Respiratory Society)/PhD-Grant: *“How to improve continuing professional development to foster physician’s competencies & patient treatment”*. PhD Advisor: Prof. Dr. Dr med. S. Huwendiek
More details

SSGIM (Swiss Society of General Internal Medicine): *“Definition of Competencies for Attending Physicians in General Internal Medicine Departments in Swiss Hospitals: a multicenter qualitative study”* SGAIM Foundation Award. Project partner: Department of General Internal Medicine, Inselspital, University Hospital Bern, Dr. med. Christine Roten, Dr. med. Martin Perrig and Dr. med. Christoph Berendonk, IML
More details

Supporting Clinical Skills Training with new videos

To manage the increasing number of students, Clincal Skills Training (CST) in the 3rd year was substantially redesigned. Students now exercise Clinical Skills CST in examing their peers before they practice on real patients. To support that the students are performing the tasks correctly, videos demonstrating the CST-Tasks were produced by the AUM. The video-production was supported by students and experts of the different clinical disciplines. IML`s new video studio and team supports the high quality of the videos.

Annual Report 2019 of the Medical Faculty Bern

Read online (IML p. 118 - 119)

Links

Recent research projects

Communication is a key competence

Communication with cancer patients and their families about approaching death: schaffolding conceptual and practical learning for health professionals

2019 2020 2021 Development Research

Despite extraordinary scientific breakthroughs, cancer remains the top two causes of death in Switzerland. This makes ‘communication about approaching death’ a main communication task for oncology health professionals. Our project aims at supporting oncology health professionals in performing these conversations with confidence and positive impact for all involved. Evidence shows that communication skills can be learned and that they have the potential to influence how people die, how families adjust to bereavement, and how health professionals cope with death in their work.

Objective

Based on state of the art of research, we will develop a new learning module on the DocCom.Deutsch learning platform, addressing the issue of communicating approaching death. We will deliver a state-of-the art communication guide for oncology health professionals through an eLearning blended approach, and test the efficiency of learning and employing this approach through research.

Project team

Prof. Sissel Guttormsen, IML, medical faculty, University of Bern (Main applicant)
Prof. Steffen Eychmüller, Universitäres Zentrum für Palliative Care, Inselspital Bern (Co-applicant)
Dr. Sofia Zambrano Universitäres Zentrum für Palliative Care, Inselspital Bern (Co-applicant)
Dr. Kai Schnabel, IML, medical faculty, University of Bern (Co-applicant)

Financing

Swiss cancer league

Team IML

Sissel Guttormsen, Kai Schnabel, Felix Schmitz, Beate Brem

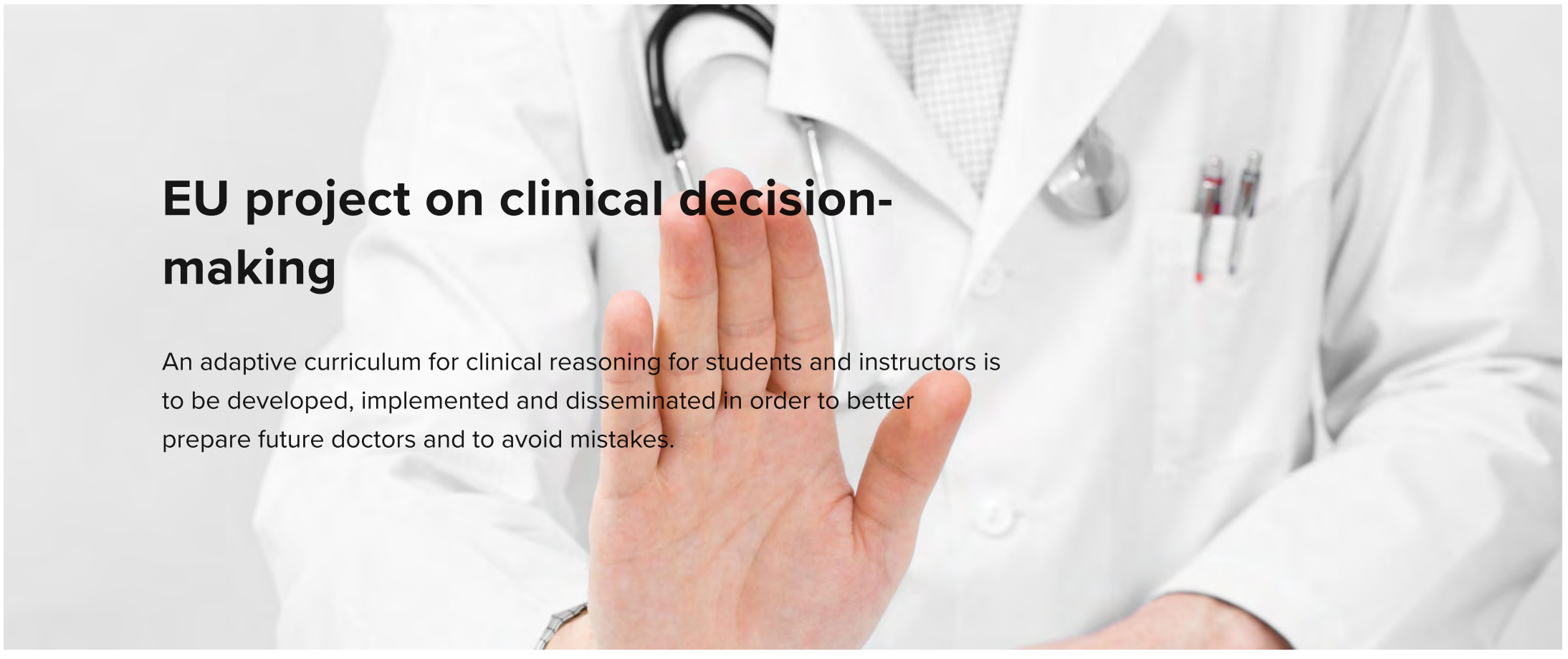
Project information

Running time: 04.2019 – 31.03.2022

Prof. Dr. phil. Sissel Guttormsen Schär
Director IML

+41 31 631 62 01

sissel.guttormsen (at) iml.unibe.ch



EU project on clinical decision-making

An adaptive curriculum for clinical reasoning for students and instructors is to be developed, implemented and disseminated in order to better prepare future doctors and to avoid mistakes.

2019 2020 2021 Assessment Research

Clinical decision making (also referred to as clincial reasoning) is a skill that healthcare students must learn during their studies and then further develop in clinical practice. This process involves the use of clinical knowledge to gather and integrate information from various sources to ultimately lead to a diagnosis and a management plan for patients.

Objective

- design, develop, evaluate and disseminate a curriculum for clinical decision-making
- develop a train-the-trainer course for lecturers.
- Optimal learning should be achieved through a combination of online and classroom teaching. In order to facilitate the dissemination and use of the new curriculum, it can be adapted to existing curricula, which should make it easier for both curriculum planners and lecturers to gradually integrate it.

Financing

Co-financed by the EU

Project Team

Project team IML:
Sören Huwendiek & Felicitas Wagner

Project coordinator: University of Augsburg, Project manager: PD, Dr. med. Inga Hege.

Project partners:

- Jagiellonian University, Krakow:
  Andrzej A. Kononowicz, PhD; Małgorzata Sudacka, MD; Magdalena Szopa, PhD
- University of Bern:
  Sören Huwendiek, Assoc. prof., MD, PhD, MME; Felicitas Wagner, PhD; Isabelle Steiner, MD
- Faculty of Medicine, University of Maribor in Slovenia:
  Monika Sobocan, MD, Prof. Zalika Klemenc-Ketis, MD, Prof. Sebastjan Bevc, MD, PhD; Prof. Breda Pecovnik Balon, MD, PhD; Prof. Breda Pecovnik Balon, MD, PhD

- Instruct (www.instruct.eu):
  Martin Adler is CEO; Carina Pfeifer
- Örebro University:
  Associate profs: Samuel Edelbring; Kristin Ewins; Wiegleb Edström; Elisabet Welin, Prof.
- Digital Education Holdings Ltd., Malta:
  Nils Thiessen, MD; Jasmin Düsterhöft, MD; Federico Arevalo, MD

Project information

Running time: 2020 - 2023

Recent publication

MEDICAL TEACHER, 2/2020

The need for longitudinal clinical reasoning teaching and assessment: Results of an international survey

Prof. Dr. Dr. med. et MME Sören Huwendiek
Head of AAE Department

+41 31 631 62 18

soeren.huwendiek (at) iml.unibe.ch

PhD regarding Continuing Professional Development conferences

PhD thesis: "Improving the outcome of conferences on Continuing Professional Development (CPD) for healthcare professionals"

2019 2020 2021 Assessment Research Teaching

There are four prominent challenges encountered during conferences for CPD which include:

Firstly, the success of conferences is often evaluated with traditional metrics e.g. participant satisfaction indicators. Secondly, conference attendees are often seen as a homogenous group. Thirdly, it is often dismissed that novice members attend conferences as a way of integrating into the community of practice. Lastly, visiting a conference is an established way of disseminating information, however, taking the knowledge from conferences and translating it into practice is difficult.

Objective

The overarching aim of this PhD is to investigate how to evaluate and improve large-scale health professional conferences, in order to support learning and induce physician practice change.

Project team

PhD supervisor: Prof. Dr. Dr. med et MME Sören Huwendiek, PhD student: Sai Sreenidhi Ram
Second supervisor: Prof. Dr. Kevin Eva, Centre for Health Education Scholarship, Vancouver Canada
Further Supervisor: Prof. Dr. Daiana Stolz, Universitätsspital Basel

Financing

European Respiratory Society (ERS)

Team IML

Sören Huwendiek, Sai Sreenidhi Ram

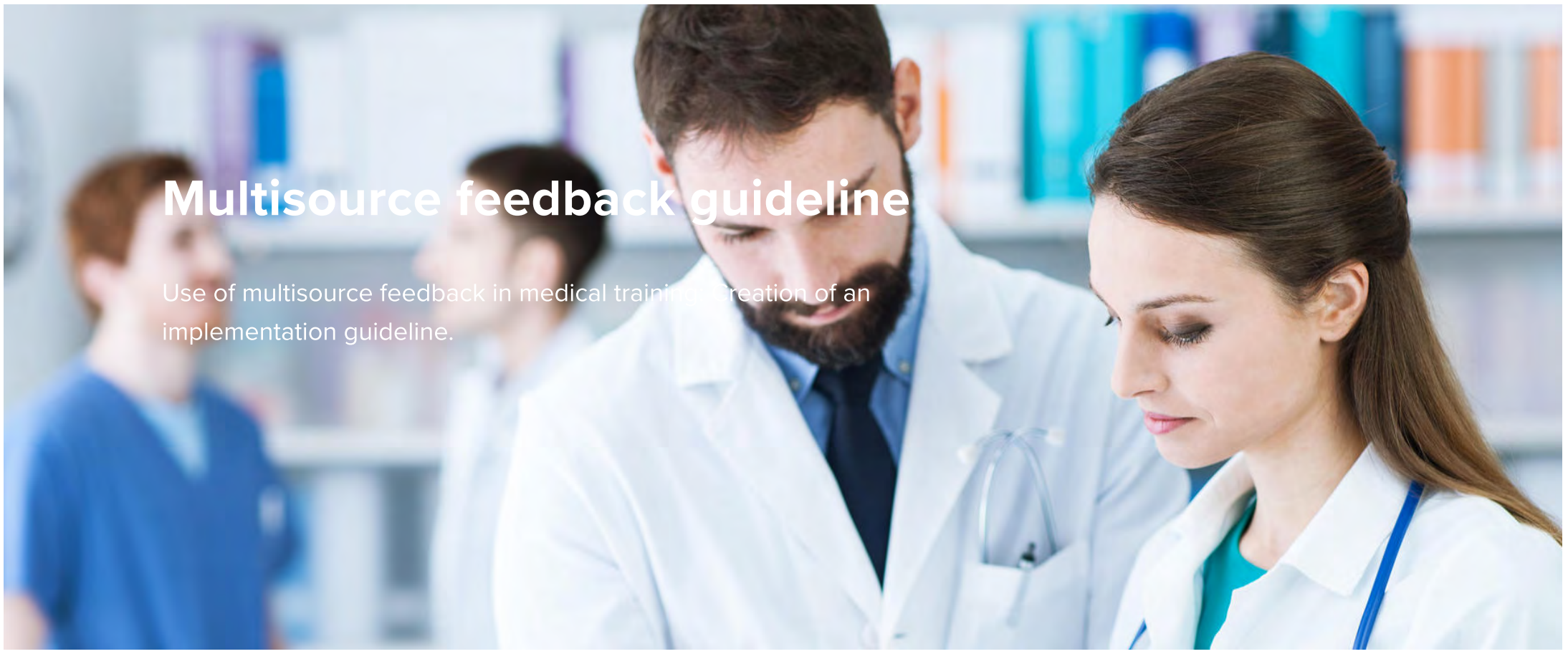
Project information

Running time: 2019 - 2023

Prof. Dr. Dr. med. et MME Sören Huwendiek
Head of AAE Department

+41 31 631 62 18

soeren.huwendiek (at) iml.unibe.ch



Multisource feedback guideline

Use of multisource feedback in medical training: creation of an implementation guideline.

2019 2020 Assessment Research Teaching

The implementation and performance of multisource feedback in medical training in Switzerland is being investigated at two pilot sites. Concrete recommendations, taking into account the international literature, will be derived from the collated positive and negative factors.

Objective

The aim of this project is to create a guideline that should help Swiss training institutions to implement and perform multisource feedback.

Ordering customer

SIWF-project funding 2019

Partner

Dr. Kathrin Neuhaus, Universitäts-Kinderspital Zürich; Dr. Barbara Fiedel, Kantonsspital Winterthur

Financing

SIWF-project funding 2019 (in DE)

Team IML

Eva Hennel (PhD student)
Prof. Dr. Dr. med. et MME Sören Huwendiek (thesis supervisor)

Project information

Running time: 07/2019-03/2020

Links

PhD-Thesis «Multisource Feedback"

Prof. Dr. Dr. med. et MME Sören Huwendiek
Head of AAE Department

+41 31 631 62 18

soeren.huwendiek (at) iml.unibe.ch

Usability evaluation and interaction design for HCI solutions

Usability expert evaluation of patient advice and documentation software for pharmacies.

2019 Service Usability

Usability expert evaluation of patient advice and documentation software for pharmacies. Identification of problem areas and creation of suggestions for improved interaction and GUI designs.

Objective

- Identification of usability problems in Documedis PCA
- Creation of an improved interaction and GUI design

Ordering customer

HCI Solutions AG

Team IML

Stephan Schallenberger, Daniela Schmid, Philippe Zimmermann

Project information

Running time: 05/06 2019

Dr. sc. ETH Philippe Zimmermann
Head of ASCII Department

+41 31 631 62 06

philippe.zimmermann (at) iml.unibe.ch

Self-Directed Learning (SDL) in Clinical Work-Life

How can specialists be supported in highly individualized learning processes with the help of modern tools?

2018 2019 2020 2021 Research Teaching

To guarantee high-quality services, health professionals are required to successfully maintain their extensive knowledge base. Health professionals are forced to consistently stay up-to-date in their field in which new knowledge is evolving continuously. There is a strong need for effective support during their lifelong self-directed, learning processes.

Objective

We investigate the SDL processes from different perspectives:

i) Elements of the learning process,
ii) the view of work and organisation psychology (models and effects on individuals and systems),
iii) needs and expereinces of health professionsl in their daily lifes,
iv) elaborating technical tools supporting the learning process, and needed features and functionalities.

Partner

Prof. Andreas Raabe, Dr. Jodie Freemann both University clinic for neurosurgery, Insel-Hospital Bern, Prof. Achim Elfering, and Linda Christa, both Institute of Psychology, department of work and organisation psychology, University of Bern

Team IML

Prof. Dr. phil. Sissel Guttormsen
Dr. phil. Felix Schmitz
Dr. Philippe Zimmermann

Project information

Running time: 2018 to present

Prof. Dr. phil. Sissel Guttormsen Schär
Director IML

+41 31 631 62 01

sissel.guttormsen (at) iml.unibe.ch

Competencies of Attendings in GIM Departments in Swiss Hospitals

In Switzerland, the competencies for attending physicians in General Internal Medicine (GIM) are not sufficiently defined, and additional non-medical tasks to successfully practice hospital medicine are not addressed.

2019 2020 Assessment Service Development

Due to this shortcoming, the transition from resident to attending physician in hospitals is often burdensome and stressful.

Objective

The objective of this project is to define the competencies of a Swiss GIM attending and to identify gaps in these competencies as a basis for the creation of a targeted training program.

Partner

Department of General Internal Medicine, Inselspital, University Hospital Bern, University of Bern

Financing

SGAIM Foundation

Team

Christine Roten, MD, MME, Department of General Internal Medicine, Inselspital, University Hospital Bern, University of Bern

Christoph Berendonk, MD, MME, Institute for Medical Education, University of Bern

Christine Baumgartner, MD, MAS, Department of General Internal Medicine, Inselspital, University Hospital Bern, University of Bern

Stefanie Mosimann, MD, Department of General Internal Medicine, Inselspital, University Hospital Bern, University of Bern

Jacques Donzé, MD, MSc, Division of Medicine, Hôpital Neuchâtelois, Neuchâtel

Felix Nohl, MD, MME, Department of General Internal Medicine, Regionalspital Emmental, Burgdorf

Simone Krähenmann, MD, MME, Division of General Internal Medicine, Kantonsspital St. Gallen, St. Gallen

Matteo Monti, MD, MME, Division of Internal Medicine, Centre Hospitalier Universitaire Vaudois, Lausanne

Martin Perrig, MD, MME, Department of General Internal Medicine, Inselspital, University Hospital Bern, University of Bern

Project information

Running time: 2/2019-12/20

Dr. med. et MME Christoph Berendonk
Head of Group Practical assessment, Deputy Head of AAE

+41 31 631 62 24

christoph.berendonk (at) iml.unibe.ch

SPSIM-Conference 2019 in Bern

SPSIM is a biennial, international conference on the use of Standardized Patients and Simulation in undergraduate and postgraduate education of health professionals.

10.03.2020

2019 Service Event Further training

Swiss Conference on Standardized Patients and Simulation in Health Care

SPSIM is a biennial, international conference on the use of Standardized Patients and Simulation in undergraduate and postgraduate education of health professionals. SPSIM 2019 took place in Bern from September 11 to 13, 2019 and was held by the Bern University of Applied Sciences Health.

The slogan of SPSIM 2019 was:

Bridging the Gap – Venturing into the Unknown

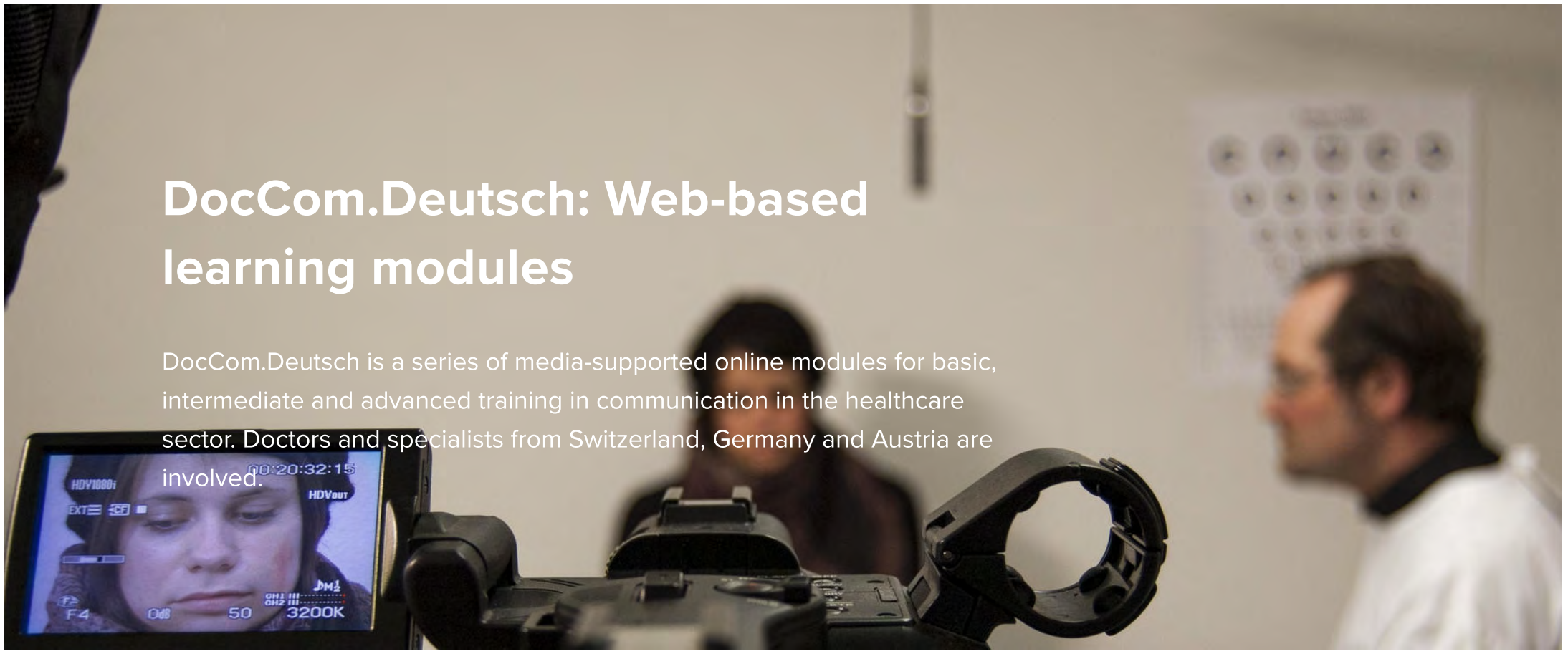
Download Flyer

Images and Impressions of 2019

For further information please visit our website: www.spsim.ch

Program/Keynotes

- Keynote 1: Minimally Expensive Simulation
- Keynote 2: Facing Taboos Physical Examination Skills Teaching
- Keynote 3: Incorporating the Association for Standardized Patient Educators Standards of Best Practice (ASPE SOBP) into your simulation context
- Keynote 4: Virtual Reality, a learning tool for health profession education



DocCom.Deutsch: Web-based learning modules

DocCom.Deutsch is a series of media-supported online modules for basic, intermediate and advanced training in communication in the healthcare sector. Doctors and specialists from Switzerland, Germany and Austria are involved.

2016 2017 2018 2019 2020 Service Teaching

Objective

The modules convey theory and practical examples that represent preparation for hands-on communication training.

Target group

Healthcare professional and specialist trainees

Team IML

Sissel Guttormsen, Kai Schnabel, Daniel Bauer, Adrian Michel

Partners, who are already using the learning platform

Publications

Schmitz FM, Schnabel KP, Bauer D, Woermann U, Guttormsen S. Learning how to break bad news from worked examples: Does the presentation format matter when hints are embedded? Results from randomised and blinded field trials, Patient Educ Couns. 2020. https://doi.org/10.1016/j.pec.2020.03.022

Schmitz FM, Schnabel K, Bauer D, Bachmann C, Woermann U, Guttormsen S. The learning effects of different presentations of worked examples on medical students' breaking-bad-news skills: A randomized and blinded field trial, Patient Educ Couns. 2018; 101(8):1439-1451. https://doi.org/10.1016/j.pec.2018.02.013

Guttormsen S, Langewitz W, Schnabel K. „DocCom.Deutsch" Ein videobasiertes Instrument zum Kommunikationstraining in Gesundheitsberufen. Jahrestagung der internationalen Gesellschaft für Gesundheit und Spiritualitität: Spiritual Care im Kontext Chronischer Erkrankungen und Schmerzen. Zürich, 27.-28.10.2017.

Schmitz FM, Schnabel K, Stricker D, Fischer MR, Guttormsen S. Learning communication from erroneous video-based examples: A double blind randomised controlled trial. Patient Educ Couns. 2017; 100(6):1203-1212-http://dx.doi.org/10.1016/j.pec.2017.01.016

Lanken PN, Novack DH, Daetwyler C, Gallop R, Landis JR, Lapin J, Subramaniam GA, Schindler GA. Efficacy of a Media-Rich, Internet-Based Learning Module Plus Small Group Debriefing on Medical Trainees' Attitudes and Communication Skills with Patients with Substance Use Disorders: Results of a Two-Center, Cluster Randomized Controlled Trial. Acad Med. 2015; 90(3): 345-354. https://doi.org/10.1097/ACM.0000000000000506

Daetwyler CJ, Cohen DG, Gracely E, Novack DH. eLearning to enhance physician patient communication: A pilot test of "doc.com" and "WebEncounter" in teaching bad news delivery. Med Teach. 2010; 32: e381-e390. https://doi.org/10.3109/0142159X.2010.495759

Project information

Running time:

Phase I: 2011 – 2014

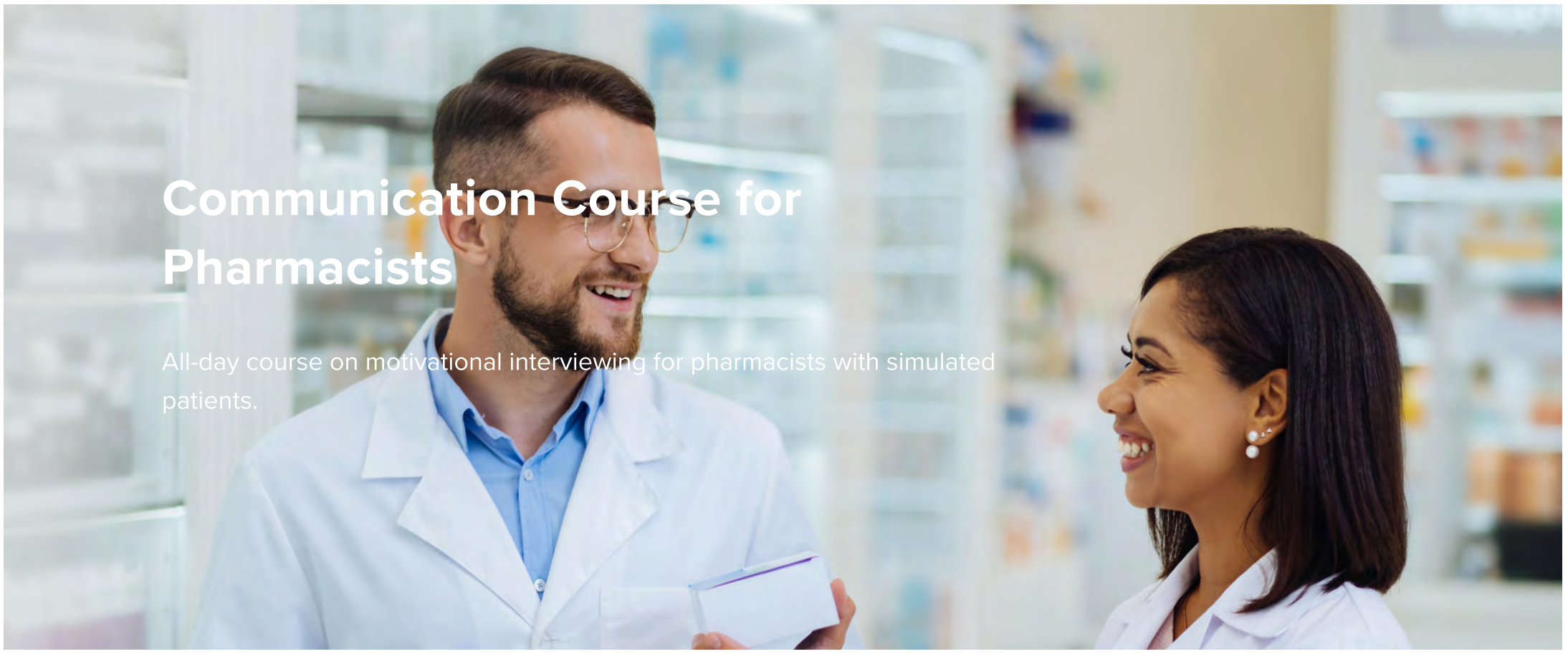
Since 2014: continuous support and development

Financing:

Phase I / Donation through Novartis Foundation for People and the Environment

Link

Website DocCom.Deutsch (in DE)



Communication Course for Pharmacists

All-day course on motivational interviewing for pharmacists with simulated patients.

2018 2019 2020 Service Further training

Objective

Improve pharmacists communication skills.

Ordering customer

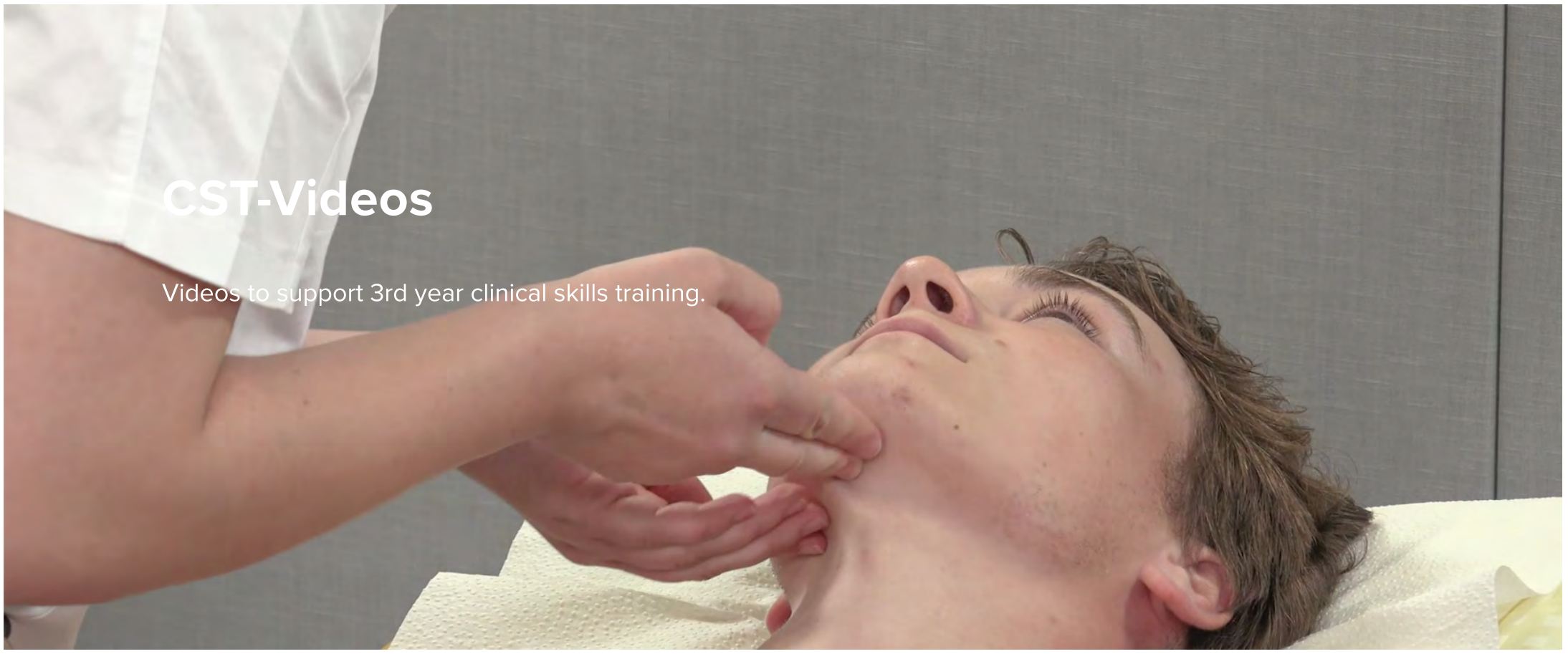
AGFAM (Arbeitsgemeinschaft Fortbildung für Apothekenmitarbeitende)

Team IML

Ulrich Woermann

Project information

Running time: 01/2018 – to present



CST-Videos

Videos to support 3rd year clinical skills training.

2019 2020 Service Teaching

Demonstration of the examination process and examination techniques. Provision of the videos on ILIAS. Blended learning concept. Videos are used to prepare for CST classes and OSCE exams.

Topics are:

- Examination of the abdomen, groin, male genitalia and rectum
- Examination of the cardiovascular system and lymph nodes
- Examination of the lungs and thyroid
- Examination of the eyes
- Examination of the musculoskeletal system
- Neurological examination
- ENT examination
- Gynaecological examination and examination of the female breast

Mostly created as part of an MSc theses.

Objective

Optimisation of CST teaching

Ordering customer

Faculty of Medicine

Partner

Various University clinics

Team IML

Ulrich Woermann, Nick Lüthi, Giovanni Ferrieri, Michael Flury, Marcel von Gunten, Lernende

Target group

Medical students

Project information

Running time: 01/2019-12/2020

Dr. med. et MME Ulrich Woermann-Walthert
Scientific collaborator, Head of Group learning media

+41 31 631 62 54

ulrich.woermann (at) iml.unibe.ch

HemoSurf development

HemoSurf is educational software teaching morphological haematology that is known and used worldwide.

2019 2020 2021 Service Development

The extensive figures are from a time in which digital photography was not as advanced as it is today. The pictures were taken with a video camera and a frame grabber and are rather small and low-resolution. The figures are to be replaced by new images. In addition, HemoSurf will also be translated into Spanish.

Since the sale of HemoSurf on CD-ROM is no longer viable, in the medium term, an online version with online payment is planned.

Objective

- New figures
- Spanish version of HemoSurf
- Online licencing

Partner

Prof. Dr. med. Vera Ulrike Bacher, Universitätsklinik für Hämatologie und Hämatologisches Zentrallabor

Team IML

Ulrich Woermann, Adrian Michel, Andrea Leonardo Abgottspon

Project information

Running time: 01/2019 – 12/2021

Dr. med. et MME Ulrich Woermann-Walthert
Scientific collaborator, Head of Group learning media

+41 31 631 62 54

ulrich.woermann (at) iml.unibe.ch

Communication courses for Sanacare group practices

Communication courses for the medical staff of the 13 Sanacare group practices. Including role play among themselves and with simulated staff.

2020 2021 Service Development

Communication courses on the following topics:

- Motivational conversation
- Giving feedback
- Breaking bad news
- Shared decision making
- Blended learning concept to prepare for Doccom.Deutsch.

This is envisaged as a pilot course.

Objective

- Development of 4 half-day courses on the above topics
- Presentation of all courses (52 dates)
- Standardisation of courses for use by other interested parties.

Ordering customer

Sanacare

Financing

Sanacare

Team IML

Ulrich Woermann, Kai Schnabel, Beate Brem, Daniel Bauer, Adrian Michel

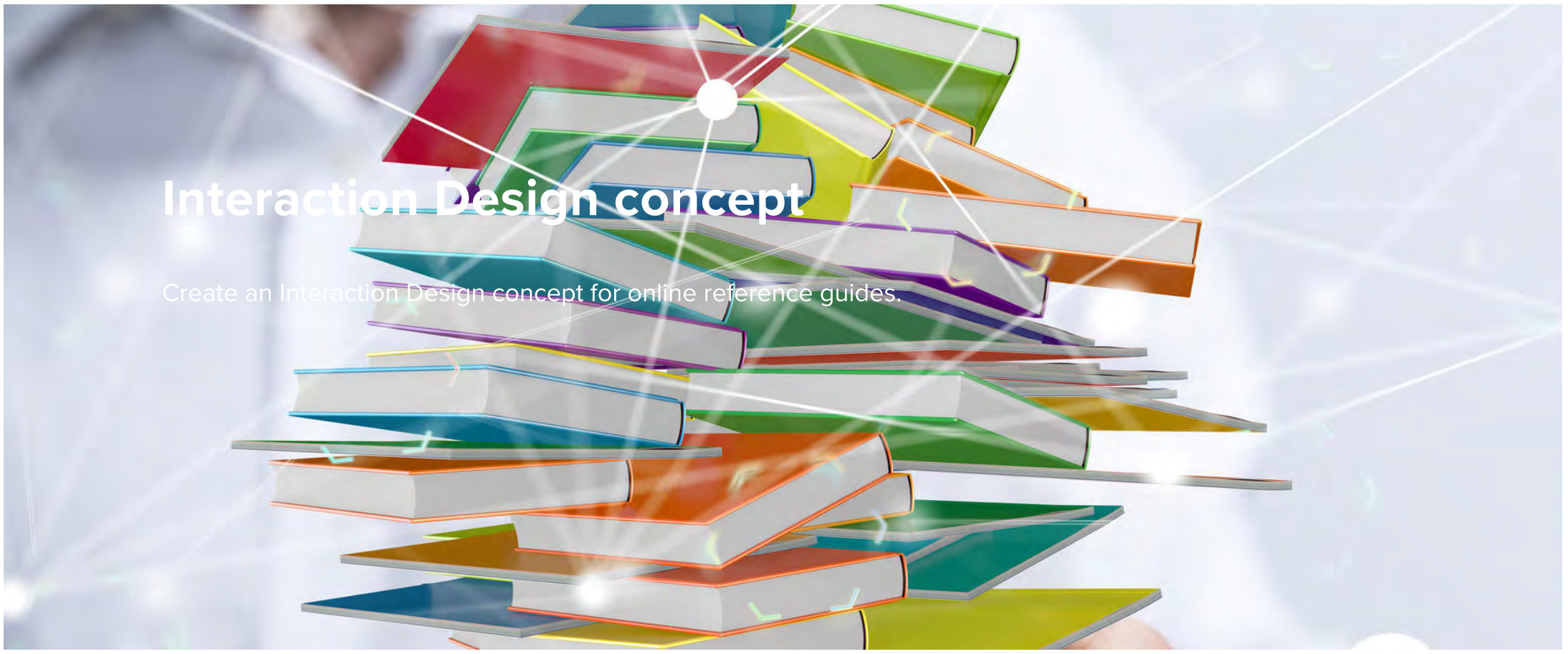
Project information

Running time: 01/2020 – 12/2023

Dr. med. et MME Ulrich Woermann-Walthert
Scientific collaborator, Head of Group learning media

+41 31 631 62 54

ulrich.woermann (at) iml.unibe.ch



Interaction Design concept

Create an Interaction Design concept for online reference guides.

2017 2018 2019 Service Usability

How to display data/information is a fundamental issue in professional life. We seek to learn from various fields in this case from the geology.

Development of a new interaction design concept for three legal online reference sites (DM.01-AV, GRUDA-AV and RECHT) of the Canton Bern.

Objective

- Easier access to the contents oft he reference guides
- New information architecture
- Better search functionality for complex searches
  New technical platform

Ordering customer

Amt für Geoinformation des Kantons Bern

Team IML

Stephan Schallenberger, MAS in HCID

Rafael Beck, MAS HCID

Dr. sc. ETH Philippe Zimmermann

Project information

Project period: 09/2017 - 12/2019

Stephan Schallenberger
Interaction designer, Senior usability expert

+41 31 631 62 07

stephan.schallenberger (at)

iml.unibe.ch

SOREL – maintain and redesign

SOREL is an online learning program funded by all five medical faculties in Switzerland and the Swiss Society of Otorhinolaryngology, Head and Neck Surgery.

2016 2017 2018 2019 2020 Service Further training

The Department for Education and Media (AUM) has been maintaining the SOREL program since 2011. The system needs an update, therefore, it is now being redesigned to meet the latest Internet standards. This will make the learning program more attractive for users and make the contents easier to edit for authors. Moreover, in the future, all five university ENT departments (University Clinics for Ear, Nose and Throat Medicine) should be able to install SOREL on their own servers. The revised learning program will provisionally be available from Autumn 2018.

Objective

- Compatibility with HTML 5
- Modern design
- Optimized for touch screens
- WYSIWYG authoring

Partners

All five university ENT departments in Switzerland plus the Swiss Society of Otorhinolaryngology, Head and Neck Surgery. The partners are funding the project.

Team IML

Adrian Michel
Dr. med. et MME Ulrich Woermann

Project information

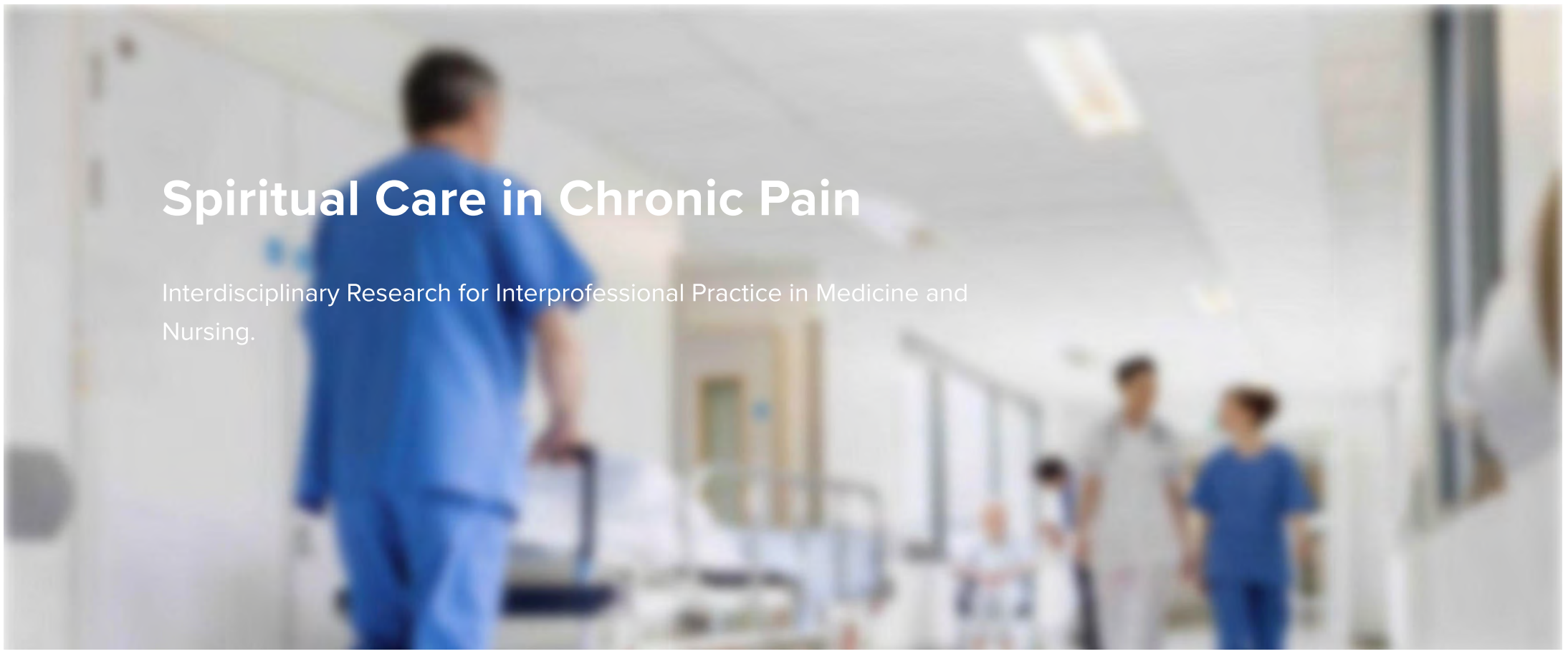
Running time: 10/2014 to end of 2021

Funding: by the partners

Dr. med. et MME Ulrich Woermann-Walthert
Scientific collaborator, Head of Group learning media

+41 31 631 62 54

ulrich.woermann (at) iml.unibe.ch



Spiritual Care in Chronic Pain

Interdisciplinary Research for Interprofessional Practice in Medicine and Nursing.

2017 2018 2019 2020 2021 Research Teaching

The significance of spiritual aspects in the management of chronic pain will be described (Part A), and a screening tool will be developed (Part B). An e-learning tool focusing on pain and spirituality will be developed for communication training purposes between healthcare professionals and patients (Part C). The efficacy of the tool will be evaluated with respect to both initial and more advanced training with the participation of various training institutes.

Objective

The study has two goals. Firstly, the significance of the spiritual dimension in medical treatment and nursing will be investigated in chronic pain patients and an appropriate surveying tool will be developed. Secondly, an e-learning tool will be developed for communication between healthcare professionals and patients, and its efficacy assessed.

Lead

Prof. S. Peng Keller, Theological Faculty, University of Zürich

Co-applicants:

- Prof. M. Rufer, Psychiatrische Poliklinik Universitätsspital Zürich;
- Prof. N. Biller-Andorno, Institut für Biomedizinische Ethik und Medizingeschichte;
- Dr. A. Bischoff, Haute école de santé Fribourg
- Prof. R. Spirig, Abteilung Klinische Pflegewissenschaft, Universitätspital Zürich.
- Prof. S. Guttormsen, Institute for Medical Education (Lead project C)

Target group

Health professionals, pre- and post graduates.

Team IML

Prof. Dr. phil. Sissel Guttormsen (Lead Part C)

Dr. med. et MME Daniel Bauer

Dr. med. et MME Beate Brem

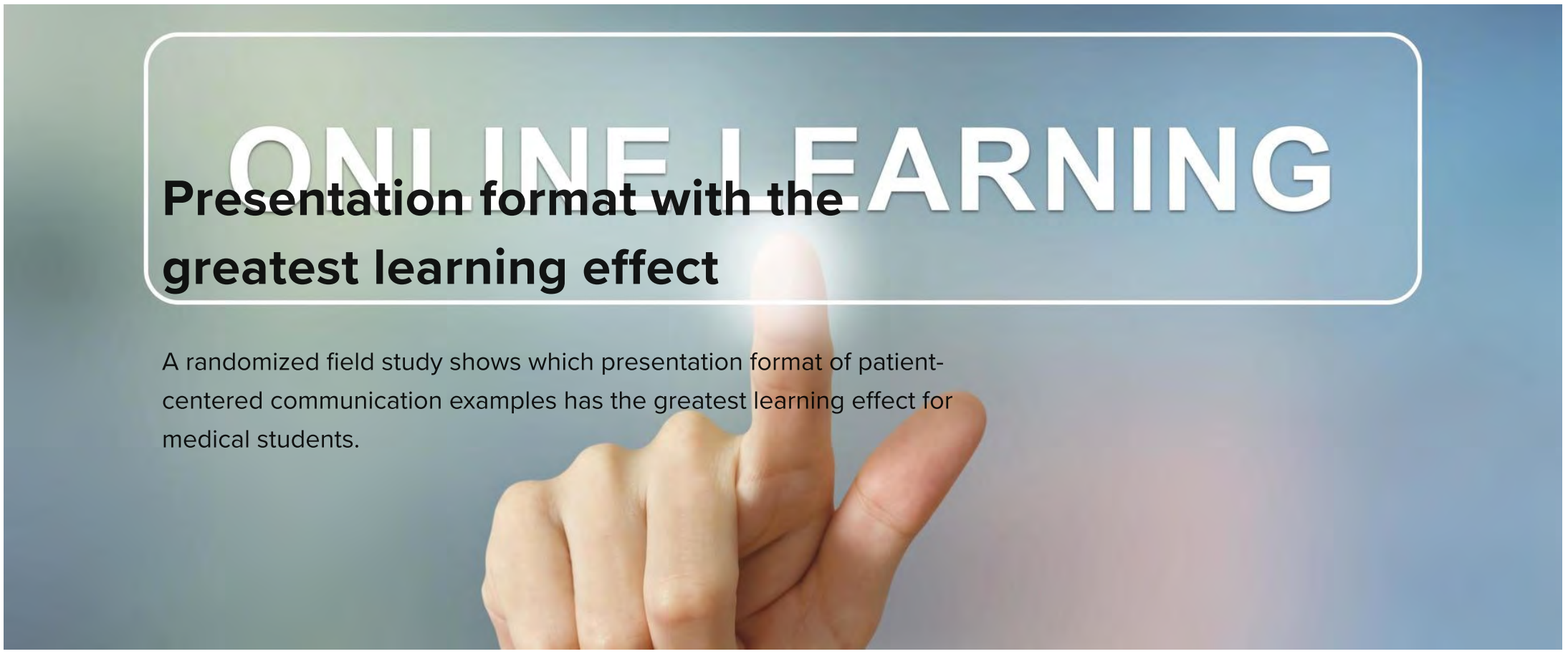
Dr. Felix Schmitz

Dr. med. et MME Kai Schnabel

Project Information

Project period: 2017 - 2021

Funding: NFP / SNF



Presentation format with the greatest learning effect

A randomized field study shows which presentation format of patient-centered communication examples has the greatest learning effect for medical students.

2016 2017 2018 2019 2020 Research Teaching

High-quality communication examples were integrated into a web-based learning tool. Medical students used this tool (DocCom.Deutsch) to prepare for their on-sole communication training. The presentation format of the examples varied – the students were presented either with text examples, video examples, or video examples with brief hints. Students' performance during the training with simulated patients was assessed.

Objective

It was examined which presentation format of communication examples is optimal for effective preparation.

The following question was addressed: Which of the presentation formats of communication examples is the most effective for students' preparation for the practical training with simulated patients?

Results and Outlook

It was found that video-based examples – compared with the much cheaper to produce text examples – only lead to a significantly greater learning effect if the videos are enriched with hints on the central elements in the video (see publication).

To clarify whether text examples with corresponding hints trigger a comparable learning effect to their video-based equivalents, a follow-up study was launched. First data from this study are currently being analyzed.

Team IML

Dr. phil. Felix Schmitz
Dr. med. et MME Kai Schnabel
Dr. med. Cadja Bachmann
Dr. med. et MME Daniel Bauer
Dr. med. et MME Ulrich Woermann
Prof. Dr. phil. Sissel Guttormsen (thesis supervisor)

Project information

Running time:

Spring 2016 – Spring 2020

Dr. phil. Felix Schmitz
Scientific collaborator

+41 31 631 62 14

felix.schmitz (at) iml.unibe.ch

Evaluation to accompany the “Steigbügel” project

Supporting professional reintegration following parental leave.

2017 2018 2019 2020 2021 Service Evaluation Further training

The project aims to support the professional reintegration of physicians who have been away from their profession for a longer period of time for family reasons. Over 12 months, the participants complete a residency program and are supported by various offers (e.g. coaching).

Objective

The purpose of the accompanying evaluation is to check the success of the project and to identify factors for success.

Ordering customer

medical women Switzerland (mws)

Team IML

Dr. phil. Felicitas Wagner
lic. phil. Barbara Zurbuchen
Prof. Dr. phil. Sissel Guttormsen
Prof. Dr. Dr. med. et MME Sören Huwendiek

Project information

Running time: 5/2017 – 2/2022

Dr. phil. Felicitas Lony Wagner
Scientific collaborator

+41 31 631 62 39

felicitas.wagner (at) iml.unibe.ch

Assessment in Cardiopulmonary Resuscitation Training

PhD regarding “Assessment in Cardiopulmonary Resuscitation Training”.

2017 2018 2019 2020 Assessment Research

The goal of this project (PhD theses) is to improve cardiopulmonary resuscitation training with a special focus on outcome assessment.

This PhD project consists of three studies:

1. The primary aim of the first study is to clarify the maximum number of participants an instructor can oversee without missing serious errors of a single participant.

2. The primary aim of the second study is to find out which variant of summative assessment is better to test the participants’ knowledge and skills of a Life support course.

3. The primary aim of the third study is to find out which variant of summative assessment is perceived by course participants as testing their leadership competency best, immediately after the comparison as well as 1 year later to identify any long-term effects on the students.

Objective

The goal of this PhD is to better understand relevant assessment issues regarding undergraduate cardiopulmonary resuscitation training.

Team

Sabine Nabecker, MD (PhD-Student)
Prof. Dr. R. Greif (Thesis Advisor)
Prof. Dr. Dr. med et MME S. Huwendiek (Co-Referee)
PD Dr. med. Lorenz Theiler (additional advisor)

Partner

Graduate School for Health Sciences

Project Information

Project period: 10/2017 - 10/2020

Prof. Dr. Dr. med. et MME Sören Huwendiek
Head of AAE Department

+41 31 631 62 18

soeren.huwendiek (at) iml.unibe.ch

MedSurf

Numerous online learning programs like MorphoMed, RadioSurf or CliniSurf, which were developed at the Department for Education and Media AUM at the IML in conjunction with specialist representatives from the Faculty of Medicine, need to be updated.

2016 2017 2018 2019 Service Development Further training

To enable continued use of these very popular learning programs in the future, a transition from both a technological and creative perspective is essential.

Objective

Our online learning programs need to comply with the latest standards and need to be seamlessly usable with the whole range of modern devices. New features like a comprehensive search function or deep linking improve the user experience.

Through the development of an author system for learning content also the creation of complex didactic scenarios is supported.

Ordering customer

Faculty of Medicine, Bern

Team

Institute of Anatomy, University of Bern

PD Dr. med. Gudrun Herrmann

IML

Dr. med. et MME Ulrich Woermann

Samuel Heinzmann

Andrea Gottsponer

Project information

Running time: 2016 - 2020

Dr. med. et MME Ulrich Woermann-Walthert
Scientific collaborator, Head of Group learning media

+41 31 631 62 54

ulrich.woermann (at) iml.unibe.ch

Develop and maintain the Examic® Assessment Suite

Applications to support exam services in the written and practical domains.

2017 2018 2019 Assessment Service Development Examic

Develop and maintain various applications to support exam services in the written and practical domains. The software package is also used for the Federal Licensing Exams and is implemented in various other exams.

Objective

Support the whole assessment cycle for written (Measured®) and practical (*E*OSCE®) exams through user-friendly applications.

Ordering customer

Federal Office of Public Health
Institute for Medical Education
Various other partners

Team IML

Hansmartin Geiser, Jonathon Duss, Stephan Schallenberger (MAS in HCID), Rafael Beck, lic. phil. Lukas Rieder, Kai Gerszewski, Roger Meier, Michael Stämpfli, Samuel Tononi, Raphael Laubscher, Axel Hahn, Daniel Schüler, Dr. sc. ETH Markus Dahinden, Dr. sc. ETH Philippe Zimmermann

The development is informed and supported by the team of the Department for Assessment and Evaluation

Project information

Running time: since 2012

Project website

Examic® Assessment Suite

Dr. sc. ETH Philippe Zimmermann
Head of ASCII Department

+41 31 631 62 06

philippe.zimmermann (at) iml.unibe.ch

Quality of radiation protection training

Evaluate the quality of radiation protection training at the MTR (medical-technical radiology) schools in Switzerland.

2017 2018 2019 Service Evaluation

Radiology professionals are among the most important occupational groups of medical health personnel with regard to implementing radiation protection. To assess the quality of training, a comparative evaluation is conducted at all six schools.

Objective

The project aims to compare the quality of radiation protection training at the various schools (FH and HF; universities of applied science and colleges of professional education and training) and to determine whether there is potential for optimization.

Ordering customer

Federal Office of Public Health (FOPH)

Team IML

lic. Phil. Barbara Zurbuchen
Dr. Felicitas Wagner
Prof. Dr. Dr. med. et MME Sören Huwendiek

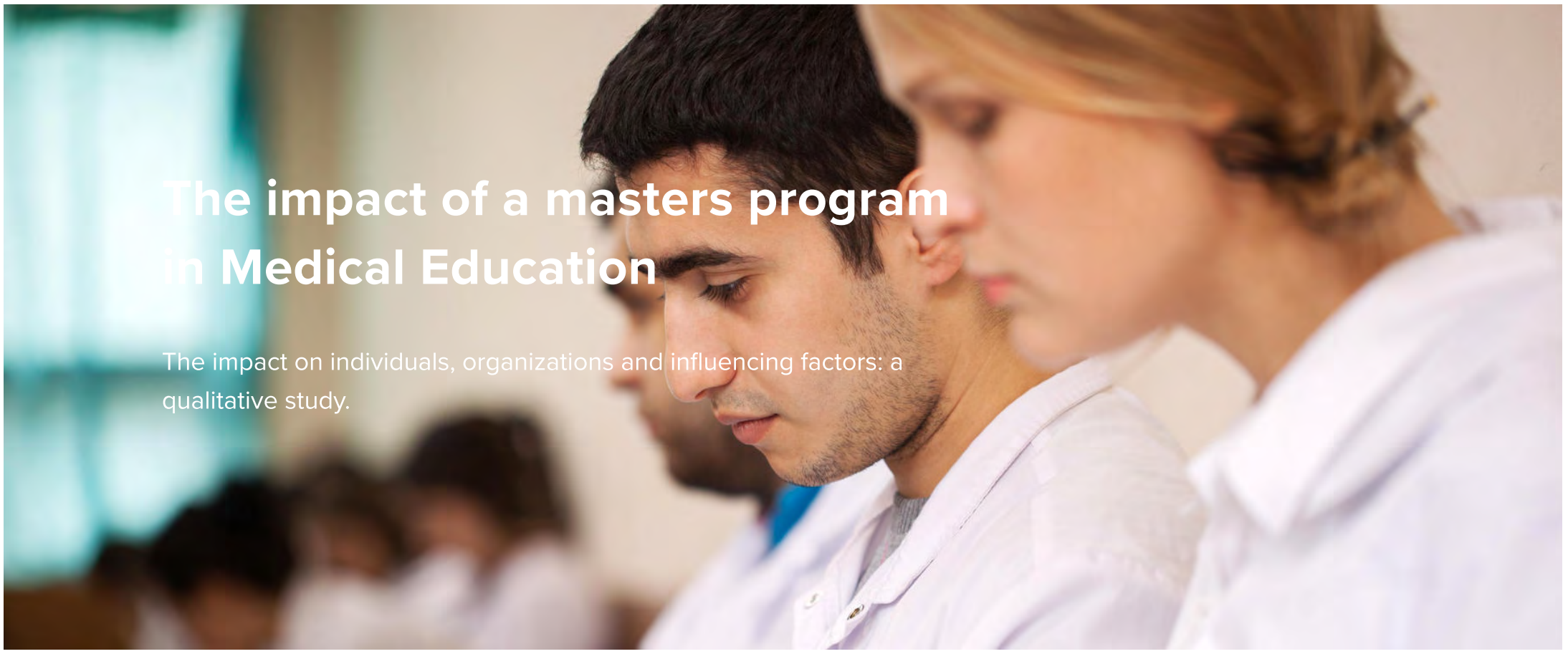
Project information

Running time: 11/2017 – 7/2019

Barbara Zurbuchen
Scientific collaborator

+41 31 631 62 41

barbara.zurbuchen (at) iml.unibe.ch



The impact of a masters program in Medical Education

The impact on individuals, organizations and influencing factors: a qualitative study.

2017 2018 2019 Teaching Further training

In this MME-thesis it is planned to investigate what impacts a master of medical education program have on the professional development of its participants, their educational practice and their organization in health profession, 5 years or more after graduation and what the influencing factors are. To investigate this a qualitative approach is envisioned.

This project is about the Masterthesis within the Master of Medical Education MME from Elke Bayha, MD (cand. MME).

Objective

Within this MME-Thesis project the impact and influencing factors of a Master of Medical Education program will be investigated.

Team

Elke Bayha, MD (cand. MME)
Prof. Dr. Dr. med. et MME Sören Huwendiek (MME-Thesis advisor)
Dr. phil.-nat. et MME Sandra Trachsel (additional advisor)
Prof. Dr. phil. Sissel Guttormsen (additional advisor)

Project Information

Project period: 2017-2019

Prof. Dr. Dr. med. et MME Sören Huwendiek
Head of AAE Department

+41 31 631 62 18

soeren.huwendiek (at) iml.unibe.ch

Evaluation tools: Interprofessional undergraduate and postgraduate education

Develop tools to evaluate interprofessional undergraduate and postgraduate education and professional practice on behalf of the Federal Office of Public Health.

2017 2018 2019 Service Evaluation

In response to the call from the Federal Office of Public Health (FOPH), we were comissioned to examin how relevant effects of interprofessional undergraduate and postgraduate education, as well as interprofessional work practice, can be effectively, efficiently, and economically measured and evaluated in the health care system in Switzerland. To make these measurements possible a toolbox "swiss interprofessional evaluation instrument" (SIPEI) will be developed.

Objective

Develop evaluation tools to assess interprofessional undergraduate and postgraduate education and professional practice in the framework of five work packages on behalf of the FOPH.

Team IML

Dr. phil. F. Wagner
Dr. med. Dr. phil. F. Neubauer
Prof. Dr. phil. S. Guttormsen
Dr. phil. A. Lörwald
Dr. med. et MME J. Meng
Dr. med. C. Bachmann
lic. phil. B. Zurbuchen
Prof Dr. Dr. med. et MME S. Huwendiek (main applicant)

Project information

Running time: 2017-2019

Funding program Interprofessionality in the health care system, annual report 2017 (details on the IML project, p. 10; in DE)

Acceptance of simulated physicians in communication training with SPs

Change of sides in communication training: from standardized/simulated patient to physician.

2018 2019 Service Further training

Within communication training in the 6th year of study, the handover is practiced with the so-called SBAR-schema – a concept for the standardization of the patient handover.

In this course, SPs (standardized/simulated patients) play the role of physicians. Through student surveys, the aim of this study is to determine how students experience this SP role-play and how authentic they deem the situation to be.

Partner

Dr. med. et MME Sonja Lüer
Senior Physician, University Children's Hospital of Bern

Objective

Publication

Team IML

Dr. med. et MME Ulrich Woermann
Dr. phil. Felix Schmitz
Prof. Dr. phil. Sissel Guttormsen

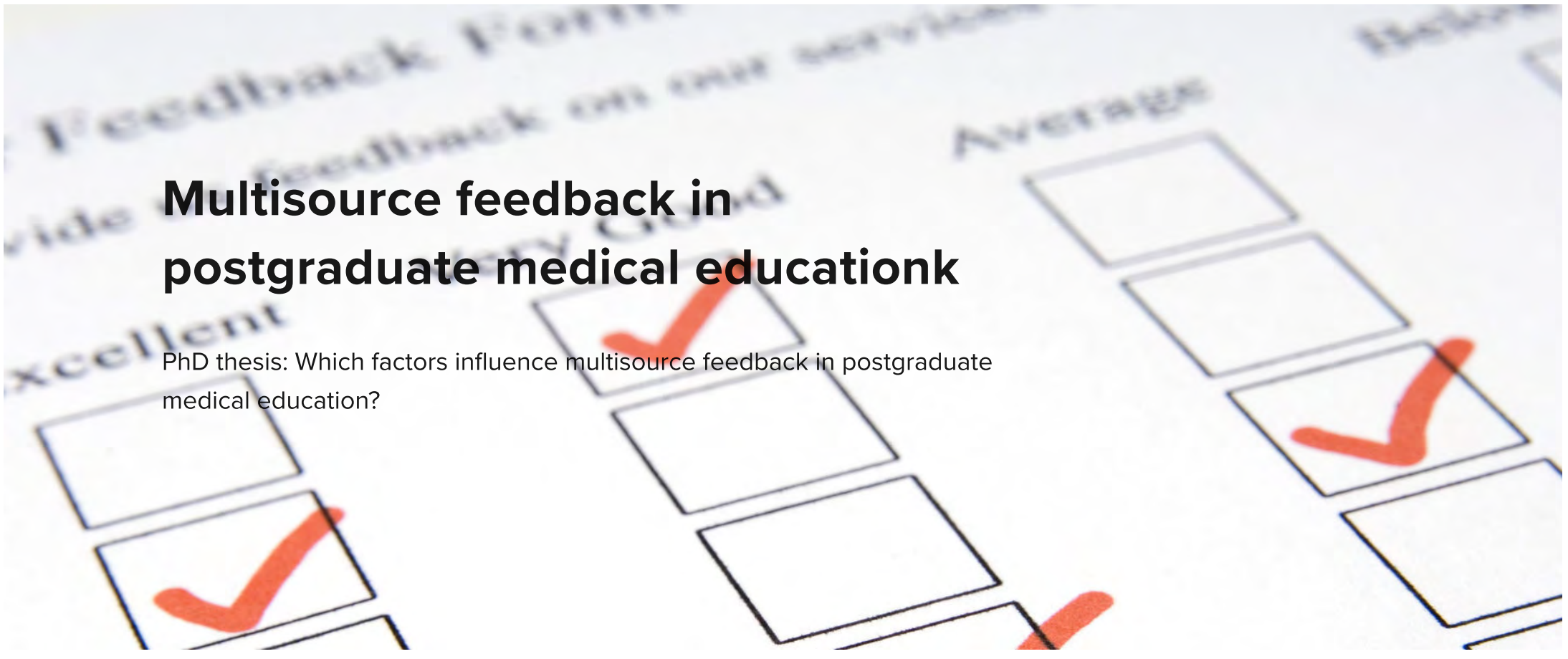
Project information

Running time: Feb. 2018 – June 2019

Dr. med. et MME Ulrich Woermann-Walthert
Scientific collaborator, Head of Group learning media

+41 31 631 62 54

ulrich.woermann (at) iml.unibe.ch



Multisource feedback in postgraduate medical educationk

PhD thesis: Which factors influence multisource feedback in postgraduate medical education?

2016 2017 2018 2019 2020 Assessment Research

Within this PhD thesis, we aim to demonstrate which factors influence the effects of multisource feedback (MSF) on postgraduate medical education.

Multisource-Feedback (MSF) is an approved form of formative assessment for medical training. Typically, MSF consists of feedback given to a doctor in training by several raters via structured questionnaires. Raters can come from the groups of peers, supervisors, medical and non-medical co-workers. Their written feedback is summed up in a conversation. Here, learner and supervisor formulate individual learning goals, which can help to guide further training.

Objective

By addressing this question, we seek to discover which influencing factors are present and how postgraduate education can be supported with the help of multisource feedback.

Partner

Graduate School for Health Sciences

Team IML

Eva Hennel (PhD student)
Prof. Dr. Dr. med. et MME Sören Huwendiek (thesis supervisor)
and further employees of the IML

Project information

Running time: 9/2014 – 8/2020

Dr. med. Eva Kathrin Hennel
Scientific collaborator

+41 31 631 62 35

eva.hennel (at) iml.unibe.ch

Accompanying research to support the “Mistake of the Week”

Since Spring 2018, we have been supporting the project “Mistake of the Week” of the Medical Clinics of the Klinikum Konstanz (Chief Physician Prof. H.-J. Kabitz and Prof. M. Schuchmann) through accompanying research.

2018 2019 Research

The project focuses on improving how to deal with own mistakes in the clinic, in order to learn as much as possible and draw meaningful conclusions from them.

Objective

Using focus groups of the involved parties, we investigate what influence this project has, and how its potential might be exploited even further.

Partners

Prof. H.-J. Kabitz et MME (Bern), Chief Physician, 2nd Medical Clinic, Klinikum Konstanz
Dr. med. F. Ulmer, Senior Physician, Intensive Medicine, Children’s Hospital of Bern

Team IML

Dr. phil. Rabea Krings
Prof. Dr. Dr. med. et MME Sören Huwendiek

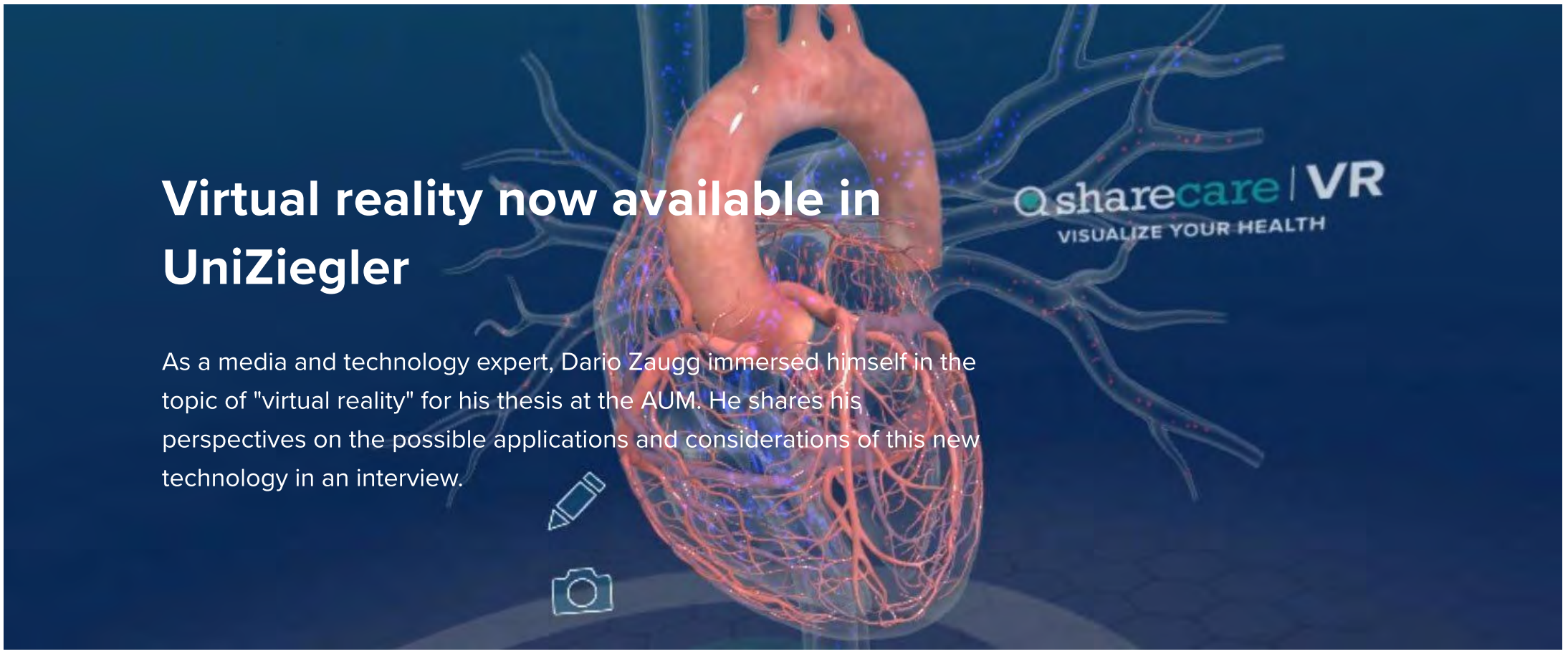
Project information

Running time: 2018-2019

Prof. Dr. Dr. med. et MME Sören Huwendiek
Head of AAE Department

+41 31 631 62 18

soeren.huwendiek (at) iml.unibe.ch



Virtual reality now available in UniZiegler

As a media and technology expert, Dario Zaugg immersed himself in the topic of "virtual reality" for his thesis at the AUM. He shares his perspectives on the possible applications and considerations of this new technology in an interview.

Text: Elisabeth Pacher Wiedmer, 23.01.2020

2019 Service Development

Why did you choose this topic for your thesis as a media and technology expert or «mediamatiker»?

The main requirement was to benefit the institute. The IML is constantly trying out new e-learning methods. Virtual Reality (VR) interested me because the topic is tangible and I've heard a lot about it. I wanted to take this opportunity to look into it. The title of my work is "VR-Lab for medical students". At the UniZiegler, VR equipment and VR learning software can now be reserved for the students.

What motivated you?

As a hardware fan I build computers in my free time. In the media and technology profession, the result - be it a video, a logo or a website – is often not immediately tangible. For VR, I only need a computer and a VR set. The result of the work is relatively fast. I liked the idea that my work could help students to learn and thus add value to medicine (examples see demo video).

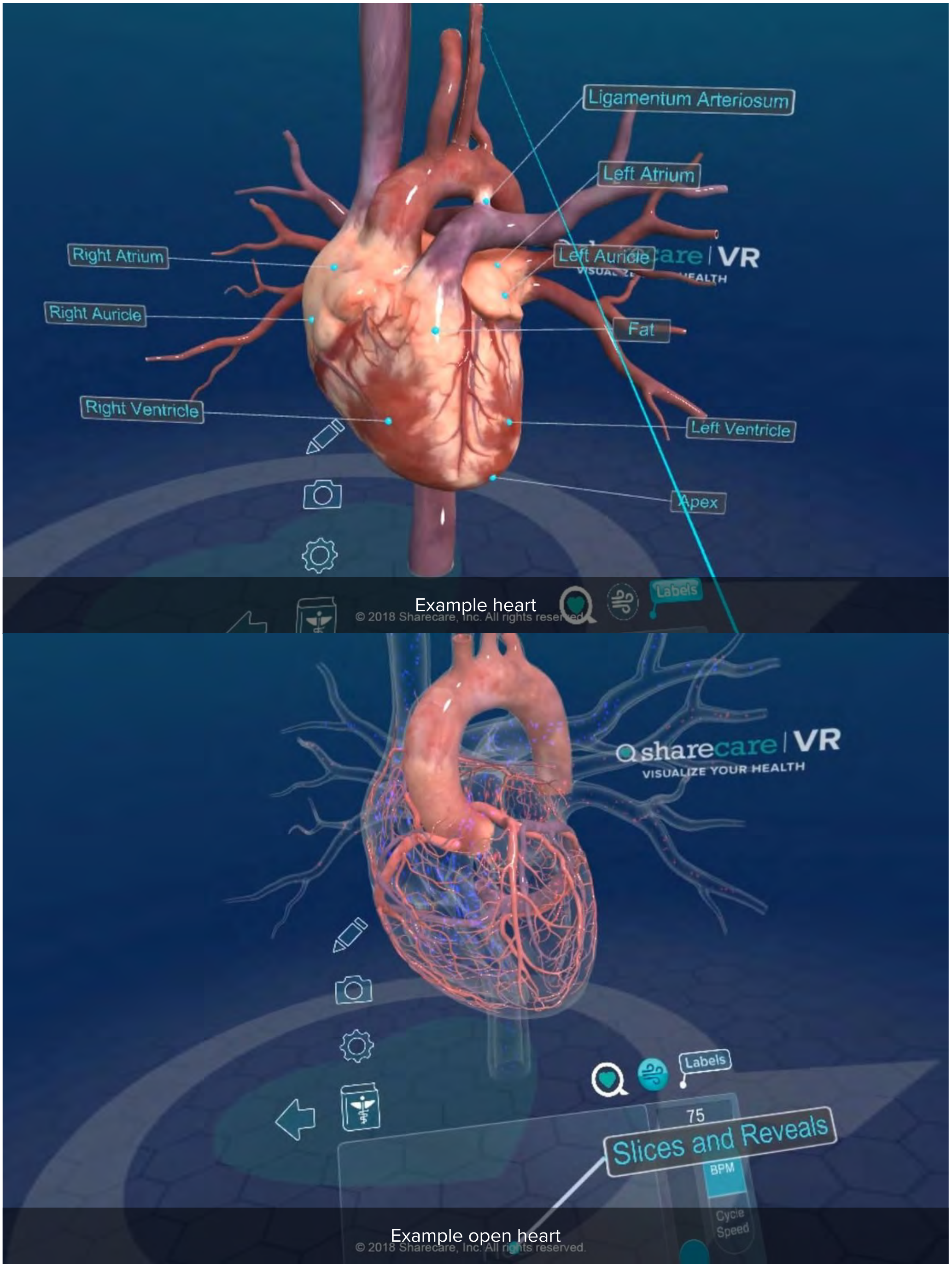
What exactly is Virtual Reality?

Virtual reality describes the representation of an artificially created world. You need a VR set, this includes VR headsets and two controllers (remote control). The VR headset consists of two screens, one for each eye. This covers the entire field of view. The controllers usually imitate the hands.

© all pictures IML

What’s cool about it?

The headset can take you - virtually - to any place in the world. In the simulated situation - be it a human heart, a skeleton, patient care or mountains with a beautiful view – it still feels like the real world, because the field of view and the movement behave the same as in reality. In the learning center UniZiegler, a VR-Lab was set up for this new learning method. Interested students can, with agreement, use it from this coming semester on site.


Ligamentum Arteriosum
Left Atrium
Right Atrium
Left Auricle
Right Auricle
Fat
Right Ventricle
Left Ventricle
Apex
Labels
Example heart
© 2018 Sharecare, Inc. All rights reserved.
sharecare | VR
VISUALIZE YOUR HEALTH
Labels
75
Slices and Reveals
BPM
Cycle Speed
Example open heart
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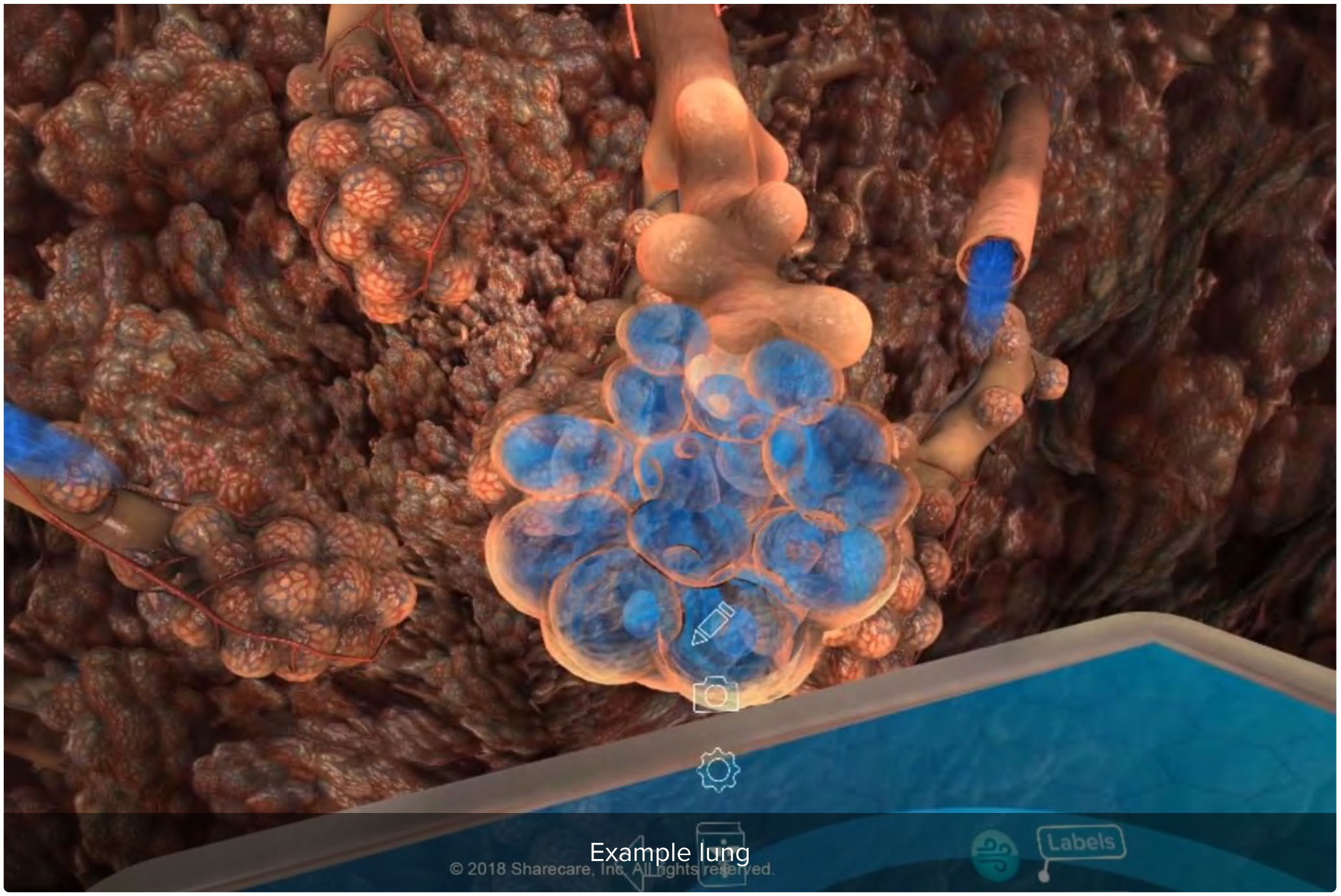


Example lung

What added value can VR offer students?

With VR students can, for example, experience anatomy in a different way by being able to look virtually into a body and "move" within it (see demo video). With the controller, the student can explore veins, muscles or an entire skeleton and even the inner workings of the heart. The three-dimensional space allows, for example, a walk around a heart and to study it from all perspectives. In addition, the condition of a single organ - such as a faster heartbeat, the general constitution (healthy or ill) can be adjusted.

What benefit does that bring to the IML?

One definite advantage is that the IML experimented with this technology at an early stage and tested new technical possibilities. However, as our test environment is still at an early stage, it must still be investigated before it is made available to technology students in the classroom. The point is to find out how effective this learning method actually is, what advantages and disadvantages it has for learning and how it can be improved.

What new insights did you gain?

At the beginning of the project, I thought VR was just a gimmick. Now I've discovered how "powerful" this new technique really is. Because the interior of a human being can be displayed larger and more interactively, medical connections may become more understandable, but this still needs to be scientifically verified.

Links

sharecare (producer)

Video "Explore your body in an amazing new way"

The IML joins an international network for the work with SP

Dr. med. Beate Brem has been elected as Member of the Board of Directors of the Association of Standardized Patient Educators (ASPE).

Text: Dr. med. et MME Beate Brem, 23.01.2020

2019 2020 2021 Service Research

She will hold the position of Member Liaison for the period of two years (January 2020 – December 2021). ASPE is an organization, that engages in providing an international network for the new field of human simulation. The organization develops “Standards of Best Practice”, opportunities for professional development and basics for certification in working with simulated participants (SP).

ASPE is led by a «Board of Directors» composed of different elected positions. Dr. B. Brem will hold one of these positions as a Member Liaison, for the upcoming two years. Within the scope of this position she will be in charge of a research project exploring international perspectives on the current “Standards of Best Practice” in working with SP. In order to do this, she will interview partners in Asia, Africa, Latin America, Oceania and Europe. The partners will be questioned concerning their current practice and guidelines concerning different areas in working with SPs (case development, training SPs, program management, professional development, safe work environment). The results of this research will be incorporated in the further development of working standards and practices.

This way the IML can tie it`s long-standing experience of many years in working with SPs in an international network, contributing to the development of international guidelines and help fostering the professionalization of the work with SPs. This involvement in an international network in turn strengthens the institutes competencies in training and continued education of health care providers.

For further information please go to:

https://www.aspeducators.org/
https://www.aspeducators.org/board-of-directors

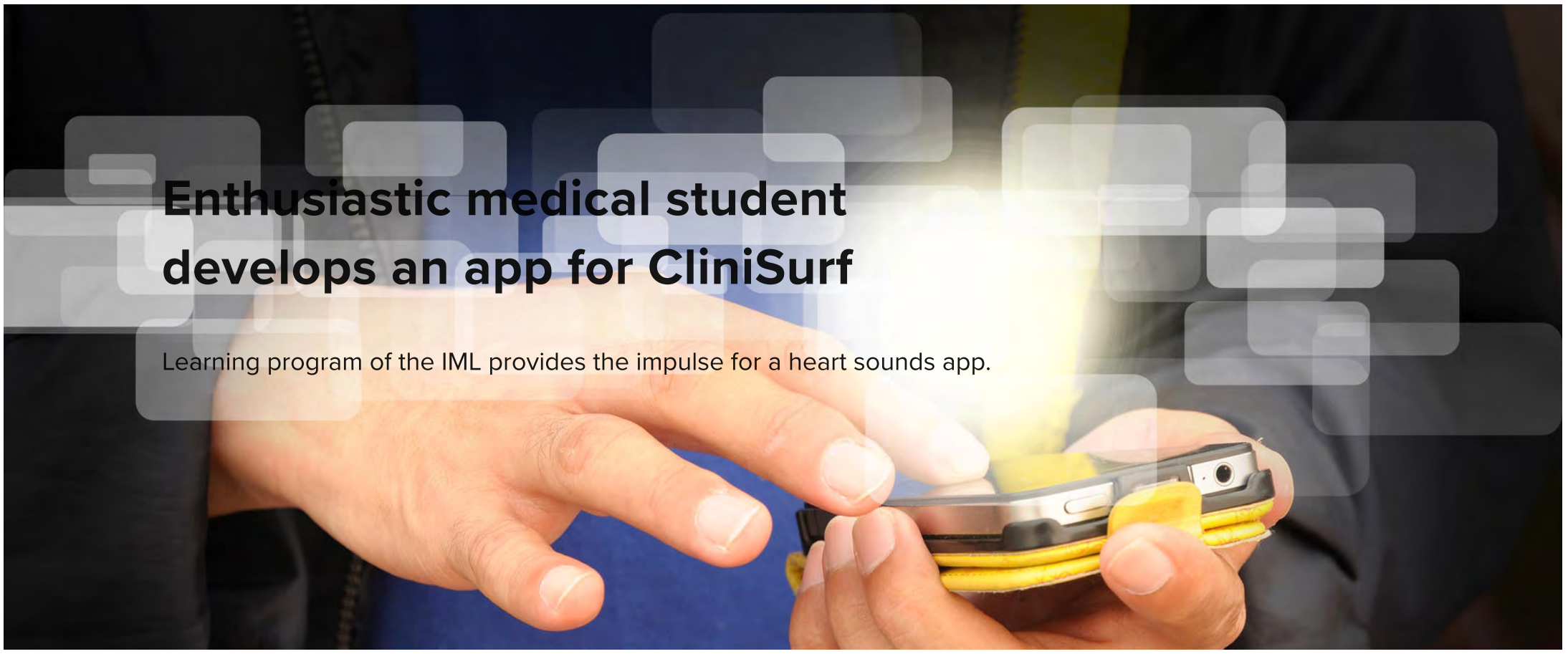
ASPE

The Global Network for Human Simulation Education

Dr. med. et MME Beate Brem
Scientific collaborator

+41 31 631 62 50

beate.brem (at) iml.unibe.ch



Enthusiastic medical student develops an app for CliniSurf

Learning program of the IML provides the impulse for a heart sounds app.

Text: Elisabeth Pacher Wiedmer, Dr. med. et MME Ulrich Woermann-Walthert, 23.01.2020

2018 2019 Service Development

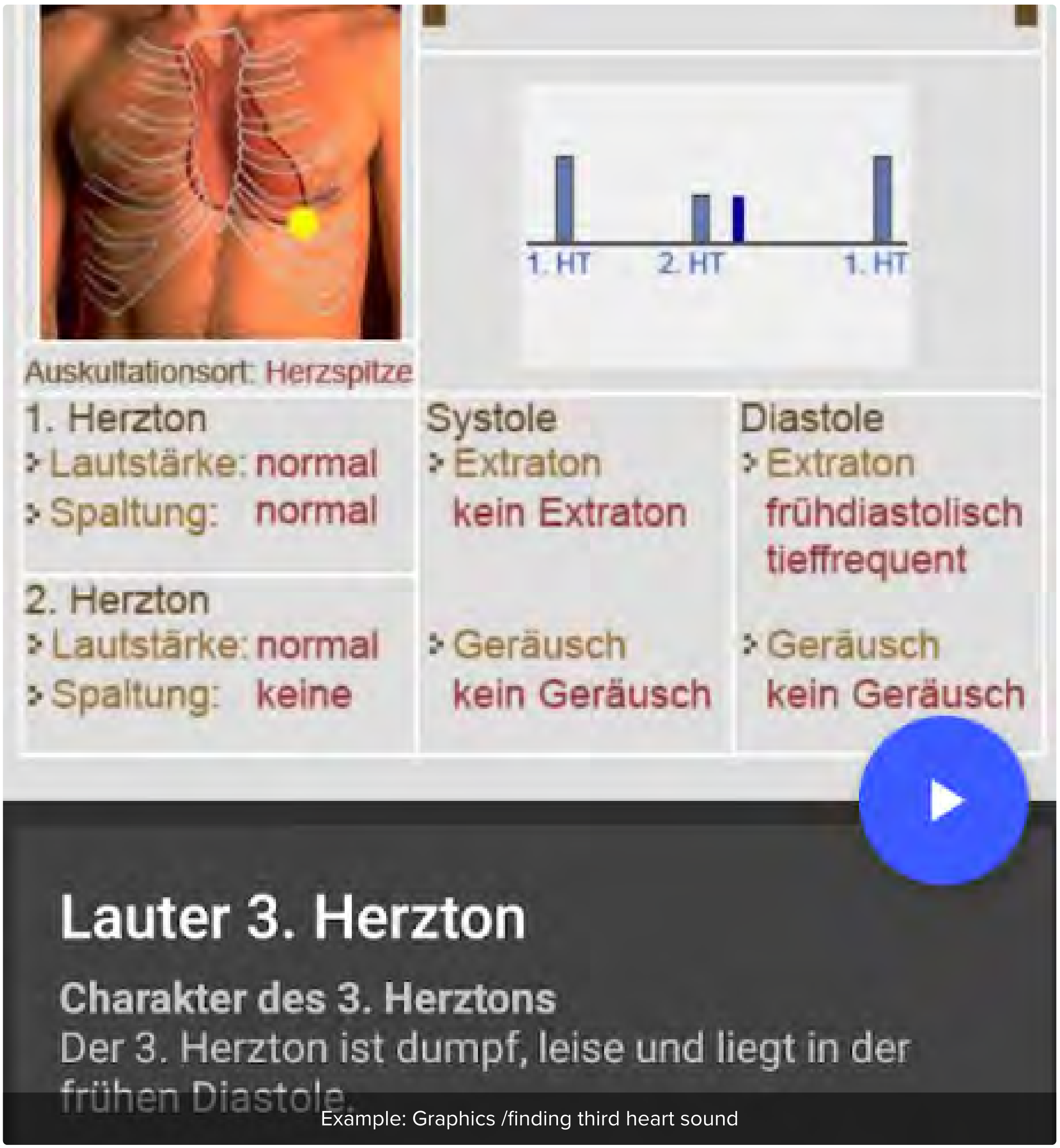
The learning program CliniSurf, developed by the Institute for Medical Education (IML), is so popular that lecturers at the University of Tübingen in Germany recommend it to their students. One German student has now developed an app based on it. *“I’m very pleased that our website gave Manuel Sigle the impetus to spontaneously develop an app”,* says Ulrich Woermann, Head of Group E-learning at the IML.

Android Cardiac auscultation app

The app contains the 65 heart sounds and heart murmurs from CliniSurf. The ear can only be trained if sounds and murmurs – be they normal or pathological – can be repeatedly listened to and compared. From a learning-didactical perspective, the concern in this regard is with developing pattern recognition. This also applies to images such as x-ray images, blood smears or ECGs. With the app, the learner is able to practice what can and needs to be detected. Moreover, the program provides further explanations. This is where the value in electronic learning programs can be seen: They complement text-based learning materials such as textbooks by offering acoustic and visual examples.

A self-test (quiz) helps users to monitor their success and learning progress, enabling them to check their progress in recognizing heart sounds and murmurs. In this way, future physicians can further develop precision in their findings.

Students are being given less and less opportunity to practice on real patients. The CliniSurf program and the app act as a bridge in this regard: Students can practice with real heart sounds countless times until their accuracy is sufficiently differentiated that heart sounds and heart murmurs can be correctly detected in real patients.



Example: Graphics /finding third heart sound

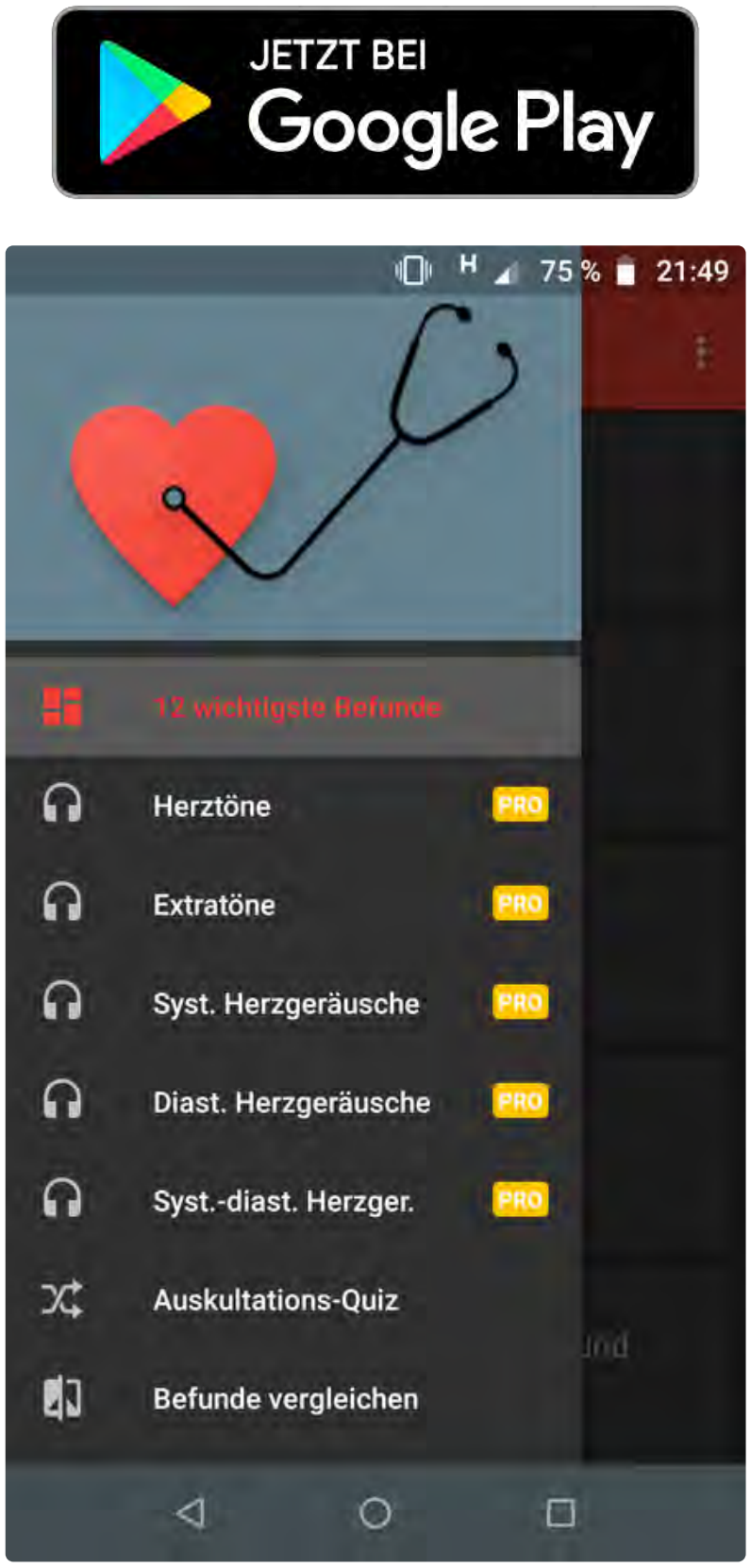
“For young people nowadays, learning with digital media is a matter of course. Therefore, we are increasingly being contacted by medical students who want to develop new learning media”, explains Woermann. *“We are happy to support such ideas. Additionally, students in Bern have the possibility to implement the production of learning media as a Master’s thesis and dissertation”*.

Anchoring in practice

The app pursues the same didactical goals as the CliniSurf website and reinforces the E-learning concept of the institute. Most of the learning modules of CliniSurf have a central focus on detecting visually or acoustically discernible changes. As such, the emphasis is on the image and/or the sound. To consolidate theoretical

knowledge, books and lectures continue to be paramount. The CliniSurf program is freely available and has existed for 15 years. Currently, its design is being reworked.

The cardiac auscultation app is offered on Google Play as a lite version with limited functionality or as a full version (for a fee). The fact that the student Manuel Sigle implemented the app for mobile learning of his own volition demonstrates the status of CliniSurf. Therefore, after careful quality control, the IML has acquired the app. Its further development will be undertaken by Manuel Sigle.



Questions to the developer Manuel Sigle

What do you like about CliniSurf?

What motivated you?

Why is this app needed?

There are already some other apps on cardiac auscultation, but none of them come close to the extent of 65 auscultation findings. The didactic preparation of other apps also leaves something to be desired. In addition, in contrast to the “competition”, the IML app has useful additional functions, like the auscultation quiz described above, and the function of comparing findings. Another advantage of the app is the comfort of use and the fact that it works completely offline.

Links

Overview learning modules IML

CliniSurf website/Cardiology

Get the app

Free-of-charge lite version

Full version

The IML is participating in an EU project on clinical decision-making

As part of this EU project an adaptive curriculum for clinical reasoning for students and instructors is to be developed, implemented and disseminated in order to better prepare future doctors and to avoid mistakes.

Text: Dr. phil. Felicitas Lony Wagner, Prof. Dr. Dr. med. et MME Sören Huwendiek, 19.12.2019

2019 2020 2021 Service Development Research

Clinical decision making (also referred to as clincial reasoning) is a skill that healthcare students must learn during their studies and then further develop in clinical practice. This process involves the use of clinical knowledge to gather and integrate information from various sources to ultimately lead to a diagnosis and a management plan for patients.

Inadequate clinical decision-making ability is one of the main causes of cognitive errors in patient care, poses a threat to patient safety and can lead to unnecessary pain, treatment or procedures for patients and an increase in healthcare costs.

Despite the importance of this topic for medical personnel and patient safety, there is a lack of structured, clear teaching, learning and assessment approaches covering clinical thinking during health care profession training.

Close the training gap

To close this training gap, an EU-wide project has been launched by the University of Augsburg (lead university; head of the overall project: Inga Hege), University of Bern (Sören Huwendiek, IML, Felicitas Wagner, IML, Isabelle Steiner, Paedriatic accident & Emergency), Jagiellonen University Kraków, University of Maribor, University of Örebro, Instruct gGMBH (www.instruct.eu) and Digital Education Holdings Ltd, Malta. The project aims to design, develop, evaluate and disseminate a curriculum for clinical decision-making and to develop a train-the-trainer course for lecturers. Optimal learning should be achieved through a combination of online and classroom teaching. In order to facilitate the dissemination and use of the new curriculum, it can be adapted to existing curricula, which should make it easier for both curriculum planners and lecturers to gradually integrate it.

The IML is pleased to participate in this important project.

Recent publication

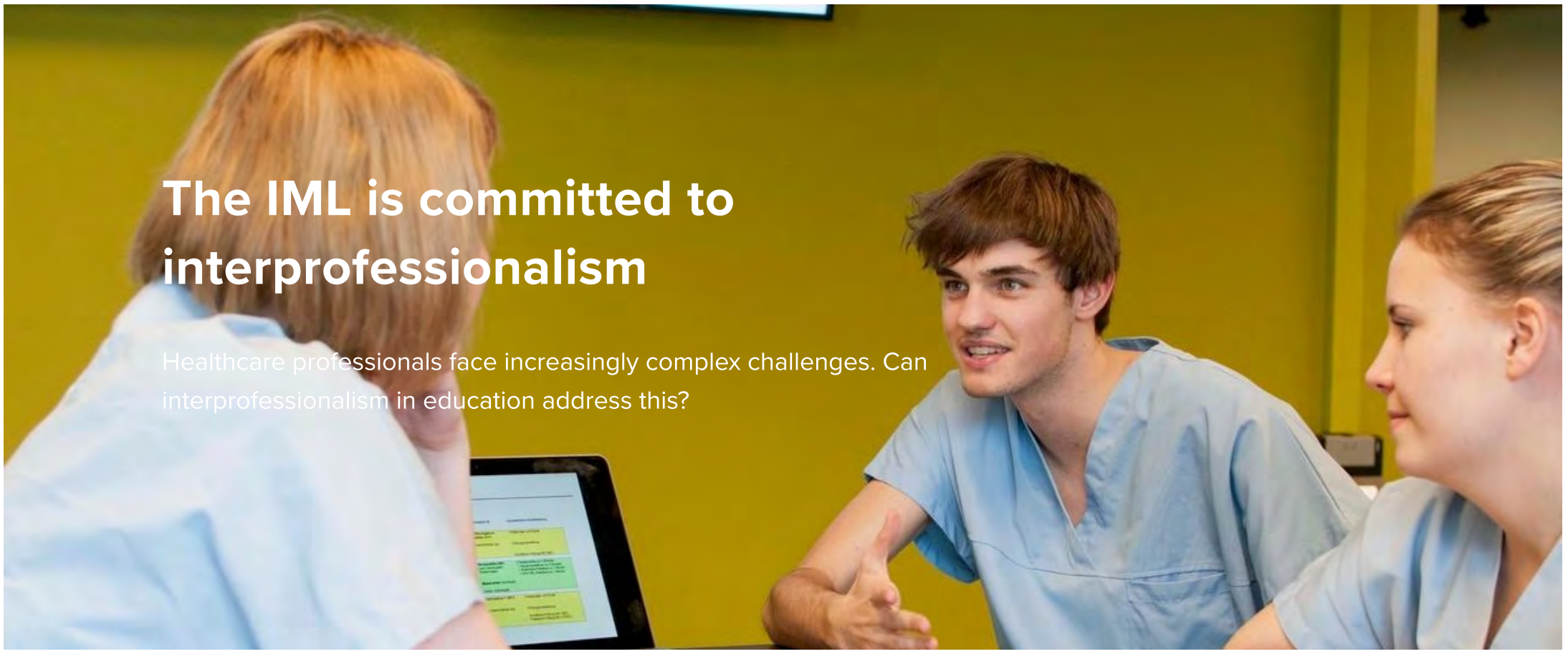
MEDICAL TEACHER, 2/2020

The need for longitudinal clinical reasoning teaching and assessment: Results of an international survey

Prof. Dr. Dr. med. et MME Sören Huwendiek
Head of AAE Department

+41 31 631 62 18

soeren.huwendiek (at) iml.unibe.ch



The IML is committed to interprofessionalism

Healthcare professionals face increasingly complex challenges. Can interprofessionalism in education address this?

Text: Elisabeth Pacher Wiedmer, Dr. med. et MME Ulrich Woermann-Walthert, 20.08.2019

2019 Service Teaching Further training

Following success in 2016 and 2017, the Institute for Medical Education (IML) received the award of the Academy of Medical Sciences (SAMW) for interprofessional education for the third time in a row in 2018. The projects were all collaborative with university hospitals and educational institutions (overview see box). Interprofessional education means that students of the medical and healthcare professions work together, for example, to work out what the further treatment of a patient could look like. How can this approach be used in the training of the medical and healthcare professions?

Interprofessionality is one of the approaches to tackling the challenges of the future, such as social change or to address a shortage of professional staff. Studies show that this can optimize the quality of care and increase economic efficiency alongside a clarification and redefinition of the professional roles and profiles of all the professional groups involved.

Interprofessional education / interprofessional cooperation

According to the World Health Organization (WHO), interprofessionality (IP) is based on two complementary approaches: on the one hand interprofessional education (IPE), which aims to make trainees "collaborative practice-ready", and on the other, actual interprofessional co-working (interprofessional collaboration, IPC). The former is an indispensable prerequisite for the latter.

The WHO defines IPE as follows: *«Interprofessional education occurs when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes»*[1]

Practice cooperation in interprofessional teams (© Pictures BZ Pflege and IML)

Stakeholders and themes

Various stakeholders consider interprofessionalism to be a priority. For example, the Federal Office of Public Health (FOPH), the German Association for Medical Education GMA and the WHO are committed to strengthening cooperation between health care professionals. Numerous studies have shown that knowledge of other occupational groups, their roles and competencies leads to better cooperation and thus better patient care. In addition, the professional satisfaction of all participants increases. [2]

«Many things are referred to as IPE, which do not really meet the criteria, » commented Ulrich Woermann (IML), who implemented one of the first interprofessional projects at the Medical Faculty. *"It is not the joint learning alone that counts, but the mutual learning of cooperation in the interprofessional team. It is exactly this, which is still practiced too little»*

While interprofessional education is an integral aspect of the curriculum in many countries (such as Scandinavia and England), in Switzerland such classroom training activity is only implemented at a few locations.

Current status: University Medical School landscape in Switzerland

The Medical Faculties in Switzerland vary widely in their provision of interprofessional training. The frontrunners are the Universities of Geneva, with the Center for Interprofessional Simulation (CIS), and Zurich with the Interprofessional Training Ward (ZIPAS), which will be operational in Autumn 2019. Since the 2011/2012 academic year, the Faculty of Medicine Bern and the Bern Nursing Education Center has organized an elective internship with medical and nursing students in the form of 2 half-days in the 1st and 3rd semesters. Through this, prospective doctors and nurses obtain an insight into the education and the professional world of others. Other interprofessional courses include the seminar on medical confidentiality in cooperation with the Bern University of Applied Health Sciences (BFH) and the IML, as well as the injection course in the first year, in which both the learning groups and the team of peer tutors are composed of various healthcare professionals.

On 7 December 2018, the Swiss Accreditation Council (AAQ) accredited the Bachelor's and Master's degrees in human and dental medicine at the Faculty of Medicine of the University of Bern unconditionally for seven years.

The AAQ expert group deemed that the Standard 1.03f "to take account of the competencies of other recognized health professions" had been met. The group recommended the further development of interprofessional training modules such as the patient visit in the Master's program, for example.

The University of Berne, Faculty of Medicine commented on the AAQ recommendation as follows: *»The faculty will (...) pursue its approach to increase the teaching of interprofessional competencies. Thus, the existing good cooperation between the Institute for Medical Education and the Bern University of Applied Sciences and the Bern Nursing Education Center is to be further expanded, for example, as part of further optional interprofessional courses. »*

Conclusion

Interprofessionality helps future health professionals to be better prepared for the increased demands of the healthcare system. The WHO succinctly makes the point: *"It is no longer enough for health workers to be professional. In the current global climate, health workers therefore need to be interprofessional. "*[3] This requires organizational and political structures, resources as well as concepts, to ensure the closer cooperation of the professions in theory and practice. A better interaction of all involved occupational groups in the health system ultimately benefits patients. [4]

The "Interprofessionality" thematic group of the Federal Office of Public Health (FOPH) concluded in 2013 that: "To optimize the therapeutic processes for the well-being of patients, avoid mistakes and alleviate the shortage of health professionals through efficient cooperation, the various occupational groups must in a timely manner explicitly reflect on their own roles, duties and responsibilities, as well as those of other professions.[5] " The IML seeks to incorporate this approach into medical education.

Notes

[1] Framework for Action on Interprofessional Education & Collaborative Practice, World Health Organization, 2010

[2] GMS Journal for Medical Education; Position Paper GMA Committee - Interprofessional education in the healthcare professions, 13 May 2015

[3] Framework for Action on Interprofessional Education & Collaborative Practice, WHO, 2010

[4] GMS Journal for Medical Education; Position Paper GMA Committee - Interprofessional education in the healthcare professions, 13 May 2015

[5] Report of the "Interprofessionality" thematic group of the Federal Office of Public Health (FOPH), 2016

Overview of interprofessional projects of the IML

Conferences

- SPSim Conference "Standardized Patients and Simulations" is a cooperation between the IML with the Bern Nursing Education Center, the Bern University of Applied Health Sciences and the High School of Health Vaud (HESAV)

IPE

- **SAMW Award 2018:** Interprofessional workplace-based assessments in Diabetes, Katrin Feller, Michelle Müller, Livia Remund, Sibylle Stocker (Inselspital, University Hospital Bern), Christoph Berendonk (IML)
- **SAMW Award 2017:** Interprofessional learning with interprofessional peer tutors, Claudia Schlegel (Bern Nursing Education Center), Noemi Schaffner (Bern University of Applied Health Sciences), Beate Brem (IML)
- **SAMW Award 2016:** Interprofessional learning during basic training of various healthcare professions, Gudrun Herrmann (Institute of Anatomy, University of Bern), Claudia Schlegel (Bern Nursing Education Center), Ulrich Woermann (IML)

Evaluation tool development (BAG-Mandats of IML)

1. Development of the Swiss Interprofessionality Evaluation Tool «SIPEI» (Sept. 2017 – Nov. 2019)
2. Applicationn of the Swiss Interprofessionality Evaluation Tool «SIPEI» (since May 2019), follow-up mandate to 1 (led by BFH under

Prof. Dr. Kai-Uwe Schmitt; IML is the cooperation partner)

Literature

- Annual Meeting of the Society for Medical Education (GMA) 2019 in Frankfurt, main topic "Interprofessional Teaching"
- "INTERPROFESSIONAL EDUCATION GUIDELINES“, CAIPE, 2017
- Brochure of the Funding Program on Interprofessionality in Health Care, FOPH, 2017
- Interprofessionality in medical education; FOPH; Report of the topic group Interprofessionality, 2016
- "Introducing Interprofessional Education"; CAIPE, 2013
- "Framework for action on interprofessional education and collaborative practice“, WHO, 2010
- SAMW Charta, Collaboration between different professional groups in health care (2014)