## SHE <br> School of Health Professions Education


(1) Maastricht University

(1) Maastricht UMC+

I proudly present the School of Health Professions Education (SHE) Annual Report for 2023. This report offers a selection of the activities, outputs and impact that SHE has generated in 2023. We look back on another year with exciting projects, impactful events and publications and other successes. We also welcomed several new colleagues to our onsite teams and collaborated with new partners from diverse regions of the world.

SHE continues to focus on four strategic priorities:

- invest in synergy between SHE Research, Educates and Collaborates activities;
- create more support for professional development of all SHE staff;
- renew our communication and marketing strategies and activities; and
- develop a strategy for local, national and international collaborations.

The continued investment in these areas is leading to tangible outcomes as you can see in this annual report.

Two highlights of 2023 were SHE Academy in March and SHE's participation in the organization of the conference of the Dutch Society for Medical Education (NVMO) in Maastricht in May.

At the end of 2023 SHE launched its 2024-2030 Research Program. We started the process of developing our future Research Program in 2022 and used a process of co-creation with a variety of internal and external stakeholders. The result is, therefore, truly a shared accomplishment and a great framework for our (future) research efforts.

I hope this Annual Report serves as an invitation to (continue to) engage with people from the SHE Community. Together, we can work towards a world in which all healthcare professionals are well educated and in the best position to contribute to high quality care.

## Pim Teunissen

Scientific Director of the School of Health Professions Education


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## SHE IN 2023

Vision, mission and values
SHE is a graduate school for research, education, and innovation in health professions education (HPE). Since its inception, the vision and mission of SHE has been clear and consistently focused on a global impact on healthcare through investment in research of healthcare education and the translation of research insights to education and innovation in HPE. Research quality, societal relevance and a continuing focus on viability are the focus of SHE's Management Team. SHE's vision is captured in the following two sentences:

Excellent healthcare requires evidence-informed models for the education of future and current healthcare professionals. Through research, education, and innovation, SHE works towards a world in which all healthcare professionals are well educated and in the best position to contribute to high quality care.

## The mission of SHE:

SHE aims to be a leading hub for research and innovation of HPE worldwide. SHE connects HPE research to educational activities, consultancy, innovation and impactful global projects.

This mission emphasizes that SHE is the hub in a broad and global network of healthcare practitioners, researchers, educationalists and policy developers who share a passion of the development of HPE. Moreover, the second sentence helps to focus on the synergistic value of connecting theory, research and practice to move the field of HPE forward. In 2023 SHE has continued work in line with this mission, exemplified by the various activities and achievements that are described in this annual report. The leading hub role of SHE is expressed in our intellectual, physical and digital presence in the global field of health professions education.

The values that characterize SHE are 'open, inquisitive, socially responsible, collaborative, innovative and ambitious'. These values are recognizable in our work and in how we work together with a variety of local to global partners. In meetings throughout 2023 with SHE staff, project collaborators, and SHE (PhD) students these values have been repeatedly emphasized.

## SHE organization

The organizational structure of SHE follows its main activities. The three core activity domains of SHE are SHE Research, SHE Educates, and SHE Collaborates.
These activities are coordinated by the SHE Management Team.

Prof. Pim Teunissen leads SHE. He is the scientific director and chairs SHE's Management Team. He combines his work as SHE director with clinical work as a gynecologist at Maastricht University Medical Center (MUMC+). In the SHE Management Team
each core activity domain is represented. Prof. Anique de Bruin represents SHE Research and is vice-director of SHE. Dr. Danielle Verstegen represents SHE Educates and Dr. Emmaline Brouwer represents SHE Collaborates. Dr. Brouwer took over this role from Geraldine Beaujean who led SHE Collaborates to many successes over the 10 years that led SHE Collaborates. In April 2023 Sandy Quaden took over from Sabina Bulic as SHE's Managing Director and also part of the SHE MT. Nicky Verleng is SHE's Office Manager.



Figure 2. Organizational dynamics of SHE

## Strategy; changes and development

The vision and mission of SHE, combined with these values, inform our strategy and strategic choices. An important objective is to make sure our research informs our educational practice and vice-versa. To further increase synergy between SHE core activities, the SHE Management Team focuses on further developing a shared identity, shared goals and providing guiding principles based on SHE's vision, mission and strategy. This process is the basis for recognizing opportunities in line with our vision and mission, strengthening collaborations within and outside the School connecting SHE activities to FHML, Maastricht University and Maastricht UMC+ educational programmes. Next to that, the SHE Management Team expects that this process will enable SHE to continue to play a leading role globally in developing the field of HPE.

Strategic choices that remain a strong foundation for SHE are the double-chain approach. The first chain concerns the connection between research and impact. Starting with application-oriented educational research is essential for finding new and better ways to educate health professionals. The findings of this research consequently feed into the educational activities of SHE. The chain is completed when the research findings and related educational activities impact the quality and innovation in educational institutes and healthcare organizations, opening up new opportunities for research. The second chain focuses on impact on individuals and teams. This
starts with short courses for participants who want to become familiar with health professions education. Next in the chain are certificate courses for participants who want to learn more about particular topics in health professions education, followed by the MHPE programme for participants who want to become academic educators, leaders or researchers of health professionals. Ending the chain is a PhD programme for participants who want to further develop as scholars in health professions education. It is not uncommon for students to first take a short course and end up doing research in the PhD programme.


Figure 3. Double Chain approach of SHE


## Pim Teunissen, PhD, MD

Role: Scientific Director SHE
Pim Teunissen was trained as a Medical Docter (M.D.) and earned his PhD in medical education at VU University Amsterdam. He is working clinically as a Gynaecologist and maternal fetal medicine specialist at the Maastricht University Medical Center (MUMC+). In 2017 he was appointed Professor of Work-based learning in Healthcare at the Faculty of Health, Medicine and Life Sciences. In 2020 he was appointed as the Scientific Director of SHE. His area of expertise is on workplace learning, the interaction between curriculum design and educational practice, transitions and learner well-being.


## Sandy Quaden, S.C.H.M.

Role: Managing Director SHE
Sandy Quaden studied Business Economics at the H.E.A.O. Limburg. After her education, she started working at Maastricht University as controller for several departments and was appointed managing director of SHE in April 2023. In her role as managing director, she is responsible for accounting within the school and she is the head of SHE's Management Office.


## Anique de Bruin, PhD

Role: Vice-Director SHE
Anique de Bruin was trained as a psychologist and earned her PhD in 2006 at the Erasmus University Rotterdam. In February 2019 she was appointed Professor Self-regulation in Higher Education at the Faculty of Health, Medicine and Life Sciences. Her area of expertise is (the linkage between) metacognition, supporting learning strategies, self-regulated learning and clinical reasoning. Anique de Bruin represents SHE Research in the Management Team of SHE and is involved as the Vice-Director of SHE.


## Emmaline Brouwer

## Role: Director of SHE Collaborates

Emmaline Brouwer was trained as a medical doctor (MD) at Maastricht University and obtained and MSc in Public Health from the London School of Hygiene and Tropical Medicine (2012). She earned her PhD in Medical Education at SHE in 2022. Emmaline joined SHE in 2012 as a project manager for SHE Collaborates, SHE's office for international collaborations in educational development. She has since worked as a project coordinator and educational consultant in Africa, Asia, Europe and the Middle East. She was appointed as SHE Collaborates Director in January 2023. Her professional interests include globalization and diversity in health professions education.


## Daniëlle Verstegen, PhD

Role: Director of SHE Educates, Programme Director Master of Health Professions Education
Daniëlle Verstegen has a background in learning psychology and cognitive Science and holds a PhD in Instructional Design. She joined Maastricht University and SHE in 2008, where she currently is associate professor and director of the MHPE programme. Her expertise lies in instructional design and innovation in student-centred learning, onsite and online, focusing on the relation between instructional design and context.


## Nicky Verleng

Role: Office Manager SHE
Nicky Verleng has started working at Maastricht University in 2009 and has been a dedicated Office Manager of SHE since 2019. In her role, she assists the Management Team and is responsible for the PhD secretariat in which she is responsible for the administrative procedures regarding the PhD candidates of SHE.

## Facts \& Figures

| STAFF AT SCHOOL LEVEL (NUMBER AND FTE) |  | FUNDING |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| School | N/FTE 2023 | Funding 2023 | Fte |  | \% |
| Scientific staff FHML | 37/9,85 fte | (1) Direct funding | 15,15 |  | 40,48\% |
| Scientific staff academic hospital | 0 / 0 fte | (2) Research grants | 8,60 |  | 22,98\% |
| Postdocs | 6 / 2,0 fte | (3) Contract research | 2,00 |  | 5,34\% |
| Internal PhD-students | 17 / 14,7 fte | (4) Other | 11,68 |  | 31,20\% |
| Total research staff | 60/26,55 fte | Total | 37,43 |  | 100,0\% |
| Support staff (research) | 5 / 2,00 fte | TURNOVER |  |  |  |
| Support staff (managerial) Total support staff | $8 / 4,34$ fte 13/6,34 fte | Turnover 2023 (x1000) |  | € | \% |
|  |  | Government funding (direct) |  | 1.940 | 35\% |
| Total staff incl. academic hospital | 73/32,89 fte | Revenues contract education |  | 1.696 | 30\% |
| Total staff excl. academic hospital | 73/32,89 fte | KNAW/NWO/ZonMw (indirect government funding) |  | 560 | 10\% |
| SHE Collaborates | $9 / 6,85$ fte | Other research revenues (Third |  | 846 | 15\% |
| SHE Educates <br> Total FTE excl support Research, Collaborates and Educates staff | 64/4,03 fte |  |  |  |  |
|  | 37,43 fte | Other revenues |  | 322 | 6\% |
|  |  | Internal settlements Total |  | 256 | 5\% |
| External PhD students | 106 |  |  | 5.620 | 100\% |
| Honorary professor | 7 |  |  |  |  |
| Visiting fellows/professors | nb |  |  |  |  |

## SHE EDUCATES

SHE has more than 40-years of experience in implementing student-centered learning. Our courses are designed to innovate health professions education worldwide and range from a short onsite summer school or online course to a full Master of Science degree programme.

## Courses

## Introductory course

## SHE Summer Course

The SHE Summer Course is a one week on-site course that offers an introduction and global overview of the Maastricht approach: theoretical insights and experiences in managing and assessing student learning in studentcentered curricula.

## Short Courses

Writing a PhD Research proposal
In this advanced course participants learn how to write a high quality PhD research proposal consisting of a series of studies that are expected to be of interest to international peer-reviewed journals. The course consists of two fulltime weeks with an online part in between. At the end of the course, students are expected to have developed a complete PhD proposal, to that they can start collecting data for their first study in their own educational setting. This course is undergoing revision and will be offered in a slightly different format in 2024.

## Critical choices in Qualitative Research

This advanced course focuses on core concepts and practices in qualitative research. Participants discuss essential choices in the qualitative research process. They bring in their own project and work on designing their study and/or analyzing their own data. In 2023 the course was provided fully online in sessions spread out over four weeks.

## Certificate Courses

The SHE Certificate Courses offer the opportunity to acquire knowledge and skills related to major topics in health professions education. The Certificate Courses are equivalent to specific sections of our Master of Health Professions Education (MHPE) and credits can be transferred for those who opt for the full programme later. The SHE Certificate Courses are provided fully online.

## JMHPE

The JMHPE is a joint health professions education programme that SHE offers in collaboration with Suez Canal University in Egypt. JMHPE is a one year programme, conducted completely through distance learning and guided by staff of both institutions. Upon completion of the programme participants receive a certificate from Suez Canal University, with recognition of UM contributions.


## Courses

## JMHPE - Joint online HPE programme with Suez Canal University Egypt

| Summer course (July 2023) |  | India | 1 |
| :--- | :--- | :--- | :--- |
| Poland | 4 | Indonesia | 1 |
| Portugal | 9 | Netherlands | 5 |
| South Africa | 1 | Saudi Arabia | 1 |
| Total number of participants | 14 | USA | 1 |
|  |  | Total number in October | 11 |
| 4C/ID Workshop June (November |  | Total number of participants | 18 |
| cancelled) 2023 |  |  |  |
| Canada | 1 | Critical Choices in Qualitative |  |
| Netherlands | 10 | Research (November 2023) |  |
| Total number of participants | 11 | Netherlands | 13 |
|  |  | United States | 1 |
| Writing a PhD Research Proposal - |  | South Africa | 2 |
| twice (March and October 2023) |  | Pakistan | 1 |
| March session 2023 |  | Gulf | 1 |
| Belgium | 1 | Moldova | 1 |
| Czechia | 1 | Germany | 1 |
| Netherlands | 3 | Belgium | 1 |
| Saudi Arabia | 1 | Jordan | 1 |
| UAE | 1 | Ethiopia | 1 |
| Total number in March | 7 | Norway | 1 |
|  |  | Switzerland | 1 |
| October session 2023 |  | Total number of participants | 25 |
| Czechia | 1 |  |  |

Dubai

## Master of Health Professions Education

The Master of Health Professions Eduction (MHPE) is a parttime and blended learning programme for teachers, designers and leaders in initial and workplace-based education in the health professions. MHPE is an accredited Master of Science programme with a special distinction for internationalisation (CeQuint).

Since 2021, the MHPE programme is a fully competencybased curriculum centred around authentic learning tasks and programmatic assessment. With intensive coaching students plan their own learning journey and build their portfolio. The MHPE curriculum offers flexibility in content ( $60 \%$ electives) and time. The programme can be completed in two years (half-time) or spread out over a longer period of time. The MHPE curriculum includes a research-based thesis project.

## MHPE Cohort 2023

| Maastricht |  |
| :--- | :--- |
| Belgium | 1 |
| Canada | 11 |
| Denmark | 1 |
| Chile | 1 |
| Trinidad and Tobago | 1 |
| Singapore | 2 |
| Brazil | 1 |
| Colombia | 1 |
| Thailand | 3 |
| India | 1 |
| Germany | 1 |
| Kenya | 1 |
| Total | 25 |

Canada
9 participants
New York
7 participants
Singapore
0 participants
Total number of participants 41


## Presenters and topics of the MHPE Master Theses 2023

## Albert Chan Kam Ming

Feedback literacy amongst anaesthesia residents in Hong Kong. Supervisor: Maryam Asoodar (MHPE Maastricht). Anne Mecklenburg When identity does not transition with the role: a qualitative study on international medical graduate fellows in critical care. Supervisor: Janneke Frambach (MHPE Maastricht). Aayush Gabrani
Understanding pediatric endoscopists' perceptions and adoption of standardized language to teach endoscopy: An interview-based grounded theory study. Supervisor: Kinga Eliasz (MHPE New York). Christine Teng Bee Choon Integrating PBL into TBL in a pharmacotherapeutics course for Pharmacy students: student's learning approach and outcomes. Supervisor: Jill Whittingham (MHPE Singapore). Clemens Rommers Using and Teaching the International Classification of Function, Disability and Health (ICF) in Medical Schools.

Supervisor: Herma Roebertsen (MHPE Maastricht).
Chloe Bogaty
The CanMEDS Competency Framework in laboratory medicine: exploring how professional roles find their place outside the clinical environment. Supervisor: Janneke Frambach (MHPE Maastricht).
Cigy Manesh
Understanding Clinical Educators' perspectives on barriers in the use of synchronous online teaching in nursing education. Supervisor: Jill Whittingham (MHPE Singapore). Derek Chang
Range, Nuance, and Temporality: A Phenomenological Exploration of Moral Distress in Physicians. Supervisor: Kevin Eva (MHPE New York).
Deepak Pradhand
Fellows Teaching Faculty: Exploring revers educational distance Near-peer education. Supervisor: David Stern (MHPE New York).

## Erin Green

Preview the Impact of Step 1
Transitioning to Pass/Fail: A
Perspective from Medical Students on a 3-Year Accelerated Regional Campus. Supervisor: Tavinder Ark (MHPE New York).
Fatima Mukhtar
Factors associated with medical students' preventive behaviour against Covid-19: A study employing protection motivation theory. Supervisor: Pascal van Gerven (MHPE Maastricht).
Herman Tam
Building train tracks as you leave the garage: How institutional education leaders navigate complexity during mandated curriculum change.
Supervisor: Pim Teunissen (MHPE Maastricht).
Heleen Staal
Practise what you preach: Does the orthopaedic medical practice support lifelong learning? Supervisor: Erik Driessen (MHPE Maastricht).

## Inge Schabort

Are Foreign-Trained Doctors Welcome in Canada? Who Apply? Who is selected? Supervisor: Pascal van Gerven (MHPE Maastricht). Kira Melamud
Defining learning objectives in preclinical medical student education In Radiology: What needs to be taught? Supervisor: Colleen Gillespie (MHPE New York).
Johan Renes
Utility of an alternative computerbased assessment format for improved assessment. Supervisor: Cees van der Vleuten (MHPE Maastricht).
Jordan Talan
Understanding the role of immersive virtual reality simulation technology in health professions education.
Supervisor: Colleen Gillespie (MHPE New York).
Jyotsna Sriranga
We all came back as different people"Social Accountability education and learner transformation - case study. Supervisor: Emmaline Brouwer (MHPE Maastricht).
Khalid Al-Karbi
The impact of Self-regulated learning
skills on the Family medicine residents' performance and burnout status in Qatar. Supervisor: Anique de Bruin (MHPE Maastricht).
Lisa Tegelaar
What is the role of autonomy, competence and relatedness on the motivation of students to prepare for and attend class in a flipped classroom model. Supervisor: Danielle Verstegen (MHPE Maastricht).
Lee Han Liang
"Optimizing Skill Retention: In-Situ, Whole-Task, Near-Peer Dynamics in Specialized Nursing". Supervisor: Danielle Verstegen (MHPE Singapore). Luke Hopf
Exploring residents experience of their own competency in a competencybased training program for pediatrics utilizing self-monitoring in daily practice. Supervisor: Simone Gorter (MHPE Maastricht).
Matthew Clifford Rashotte
Revealing the Social: How Medical
Trainees Use Peer Networks in Clinical
Decision Making. Supervisor: Lauren
Nimoy (MHPE New York).
Matthew Brooks
Emotions and clinical errors, can they
be explored in Morbidity and Mortality Rounds? Supervisor: Kevin Eva (MHPE New York).
Marie Guinat
Students (don't) know what they can do: Perceptions of preparedness after simulation training. Supervisor: Jimmy Frerejean (MHPE Maastricht). Marie Leung
Exploring professional identity
formation in ambulatory clinics
through the lens of a generalistspecialist: perspectives from the frontline. Supervisor: Renee Stalmeijer (MHPE Maastricht).
Marie Winther-Oleson
How do physicians with different seniority experience the social learning environment seen through the lens of communities of ractice within a single ICU. Supervisor: Tiuri van Rossum (MHPE Maastricht). Maria Fadous
Current Use of Simulation in Canadian Cardiology Residency Programs:
Painting the Landscape to Better Visualize the Future. Supervisor: Walter Eppich (MHPE Maastricht).


## Marissa Laureano

From student to specialist: How do new hematology attendings experience their transition to practice? Supervisor: Tiuri van Rossum (MHPE Maastricht).
Matt Commers
Effective Teaching of AntiDisinformation Competences among Health Professions Students: Evaluation of a novel theory-based bachelor-level training. Supervisor: Diana Dolmans (MHPE Maastricht). Muneera Al-Muhannadi Identifying self-regulation learning skills of clinical teaching among Family medicine faculty in Oatar: A mixedmethod study. Supervisor: Anique de Bruin (MHPE Maastricht).
Nadia Amyai
Non-Academic Community Hospital Nurses and Doctors Understanding of and Readiness for Interprofessional Education. Supervisor: Peter van Rosmalen (MHPE Maastricht). Rebacca Sternschein Working and Learning Together: Exploring Learning Culture in the ICU. Supervisor: Subha Ramani (MHPE Maastricht).

## Riley Carpenter Lide

Residency program director perspectives on the implications of the American Board of Anesthesiology's basic examination: Expanding the validity argument. Supervisor: Allison Squires (MHPE New York).
Sara Finnbogadottir
Upward feedback - mapping the current practice and co-creating a model for improvement. Supervisor: Joyce Moonen-van Loon (MHPE
Maastricht).
Ser Hon Puah
Evaluating self-efficacy on ventilator care management among internal medicine residents rotating through intensive care unit. Supervisor: Herma Roebertsen (MHPE Maastricht). Shreya Trivedi
A Focus Group Study of Residents' Choices and Use of Digital Resources to Support their Learning. Supervisor: Adina Kalet (MHPE New York).
Stefanie L Mosimann
Exploring feedback culture in different health professions within the same clinical workplace, using the R2C2 feedback model as a frame. Supervisor: Karen Könings (MHPE Maastricht).

## Tanya Girard

When mindsets meet transitions:
a mixed method study of
First-year residents' mindsets, coping
strategies and postgraduate Transition experiences. Supervisor: Anique Atherley (MHPE Maastricht).
Teena Matthew
Perceived readiness for involvement in co-creation in health Professions education: An international study. Supervisor: Karen Könings (MHPE Maastricht).
Urvashi Vishwanand
Video-Based Patient Narratives: An Effective Tool to Promote Positive Attitude towards Communication Skills Training in Medical Students. Supervisor: Karen Könings (MHPE Maastricht).
Zeeshan Ahmed
Near peer versus faculty entrustment decisions for clinical decision making. Supervisor: Matthew Sibbald (MHPE Maastricht).

## SHE RESEARCH

## SHE Research Program: H-P-E

In 2023 SHE launched its 2024-2030 Research Program. This research program offers a succinct description of the main aims our research activities contribute to. It is a program that delineates our focus of attention, offers directions for future research, and provides a framework for synthesis of research findings around divergent topics.

This 2024-2030 Research Program builds on SHE's 2018-2023 Research Program entitled Task-Centered Learning Environments in the Health Professions. Development of the 2024-2030 Research Program began in 2022 with a process of co-creation. This process was initiated and driven by the members of the SHE Research Management Team, who set out to orient the new research program around important aims for health professions education scholars. An online survey that captured current research activities of SHE faculty and affiliated researchers was followed by round table discussions centered around developments and challenges in healthcare, health professions education, and relevant scientific fields. The next phase involved an analysis of the various inputs, supplemented by relevant policy documents
(ranging from Maastricht University's Mission and Strategy to the World Health Organization's Sustainable Development Goals). This led to a first outline of SHE's research aims, which was discussed with SHE faculty and at SHE Academy 2023. The subsequent draft served as the basis for 10 interviews with various stakeholders, whose feedback and suggestions led to the final version of this Research Program.

Our research program is vital to achieve our mission. It is a clear indication of what we consider to be the main aims for the future of health professions education. It delineates our focus. This focus is not on a few specific research themes within the field of HPE. Instead, we focus on the integration of scientific insights from various research themes and different disciplines to tackle complex challenges. These challenges are related to professional learning environments, (future) professionals in all stages of their development, and the search for deliberate, feasible, and sensitive alignment between education and its contexts. Preparing (future) healthcare professionals for the dynamics of their work in healthcare requires integrating scientific insights around the following three research aims. We
intend to use our research aims as a framework for research, collaborations, and policy decisions. The research aims are intended to inspire (new) crosslinkages between people, ideas, and investments, as well as to unearth contradictions in viewpoints and to continue bridging the science and practice of HPE. In this process, SHE builds on the expertise it has developed in areas like student-centered and selfregulated learning, instructional design, participatory design, workplace-based learning and assessment, programmatic assessment, interprofessional education, internationalization, and contextualization of education.

## SHE's research aims are:

Healthcare environments that foster learning: We aim to create knowledge that enables healthcare environments to support the learning and ongoing development of healthcare teams and individual professionals. Research in different areas of health professions education needs to come together to develop theory-based models for fostering learning in healthcare environments. Research lines that are part of this aim focus on how educational approaches, such as curriculum design models, assessment approaches or intercultural education, can optimally support learning from practice.

Professionals that are sustainably competent: We aim to enhance understanding of how to prepare future
professionals to be(come) competent in line with the specific needs of their work context, and how they can remain so throughout their career. This covers research on how to enable learners to make best use of room for personalized learning plans and the role teachers, coaches, supervisors and peers play in that process. Research is also needed on how, after finishing their formal education, healthcare professionals can be supported to continue ongoing professional and personal development.

Education that is designed for context: We aim to further insights in which educational designs work for which goal, and in which context. Moreover, research can help to see how can learners be supported in learning across educational, professional, social, and cultural contexts. Unraveling the essential elements of contexts that ask for adaptation in the design of education, and consequently how to adapt or co-create designs with all stakeholders involved, are part of this aim.

To read more about these aims and our 2024-2030 Research Program, please have a look at our website.

## PhD Programme

In 2023, we welcomed 18 new PhD students who work on a variety of pressing issues in health professions education.

## Arafeh, Reem

Impact of a Faculty Development Program on Transfer of Learning to the Workplace - A Realist Evaluation Approach.
Baaren van der, Rens
Organizational and Educational Effects of Decentralized Accreditation Mechanisms in
Postgraduate Medical Education.
Brinks, Agnes
Powerful student feedback-dialogues: towards optimal educational arrangements to foster selfregulation and design skills.
Bullock, Justin
Beyond Belonging: A qualitative characterization of identity safety in medical trainees.
Bunting, Katie
Love in Health Professions Education.
Choi, Justin
Improving Diagnosis Through Enhancing the Understanding and Assessment of Team-Based Diagnosis.
Genugten van, Klaartje
Study decision processes of first year students in higher professional education.
Godschalx, Judith
Unravelling aspects of unprofessional behaviour in residency training from a legal perspective.
Gottschlich, Sina
SELFLEX: Towards Evidence-informed Support for Self-regulation of Flexible Learning.

## Hennissen, Juul

Educational leadership in health professions education.
Langbroek, Sander
Improving learning strategies in secondary education.
Lohuis, Anne
The quality of a holistic scoring instrument for assessing professional products or performance(s). Loza, Roberto
Supporting students' optimal use of self-
assessments in competency-based medical education.
Mantelaers, Marjolein
The effects of prior experiences, knowledge, skills and attitudes of second-career teachers on their self-efficacy in pedagogical didactic actions Miller, Kelsey
Emergent Interactional Learning - Examining Physician Develoment Through Spontaneous,
Task-limited Collaboration with Other Health Professionals.
Parsons, Andrew
Learning to Manage: Exploring the Development of Management Reasoning Across the Continuum of Medical Education.
Pires, Elda
Collaborative learning and the development of a deep approach to learning and interpersonal communication competence for medical practice.

Plas van der, Annelies
Supporting self-regulated learning (SRL) in an online learning environment by optimizing task selection and effort monitoring.
Sänger, Annemarie
The contribution of interprofessional identity formation (IPIF) to interprofessional collaboration (IPC) competencies and the integration of IPIF into undergraduate education to foster IPC competencies.
Sayin, Seher
Advancing healthcare professionals
development of adaptive expertise in education. Shitsama, Sylvia
Beliefs and Cultural Influence in mentoring undergraduate medical students in Sub Sahara Africa: Kenyan Context.
Walinga, Chris
Harvesting Insights: Exploring the Role of Collaborative Reflection Sessions in Supporting Medical Student Learning during Clinical Placements from the Perspectives of Students and Facilitators'.
Weerlink, Debby
Effective guidance of and by teachers to facilitate the development of self-directed learning skills in students in flexible educational contexts.

In August 2023 we announced the winner of the Jeroen van Merrienboer SHE PhD award 2022. Congratulations to Joy Lee for winning the award! (Supervisors: Jeroen van Merriënboer, Halska Jarodzka and Jeroen Donkers.)

## PhD Dissertations completed in 2023 at Maastricht University

## Mordang, S.

Challenges in high-value costconscious care training of residents: Exploring the various stakeholders' roles and attitudes
Date of defense: February, 7, 2023
Supervisors: L.P.S. Stassen, F.W.J.M.
Smeenk, K.D. Könings
Bynum, W.
Out of the Shadows: A qualitative exploration of shame in learners across the continuum of medical education
Date of defense: February 15, 2023
Supervisors: P.W. Teunissen, L. Varpio
Tremblay, M-L.
Lights. Camera. Action. Debrief. Designing Immersive Simulation for Novices to Promote Learning
Date of defense: May 8, 2023
Supervisors: D.H.J.M. Dolmans, J.J. Rethans

## Khan, M.

Overcoming barriers in the prevention of surgical site infections: a master plan employing task-based interprofessional training
Date of defense: May 16, 2023
Supervisors: W.N.K.A. van Mook, D.H.J.M. Dolmans, D.M.L. Verstegen

## Gillespie, H.

Helping students become doctors: analysing tensions and releasing opportunities in clinical workplaces Date of defense: June 6, 2023
Supervisors: T. Dornan, H. Reid, R. Conn

## Heijnens, L.

Aspects of geometry, fixation and materials in total hip arthroplasty. What have we learned?
Date of defense: June 16, 2023
Supervisors: I.C. Heyligers, E.H. van Haaren, M.G.M. Schotanus

## Nobel, M.

The radiological report: a compromise between structured reporting and natural language processing
Date of defense: September 28, 2023 Supervisors: S.G.F. Robben, A.L.A.J. Dekker

Puranitee, P.
Alleviating burnout in medical school: increasing a sense of belonging and collegiality in the clinical workplace
Date of defense: November 2, 2023
Supervisors: W. van Mook, O.J. Busari,
S. Heeneman

Loosveld, L.
Finding the merit of mentoring Mentors' personal knowledge and beliefs about mentoring in health professions education
Date of defense: December 7, 2023 Supervisors: E.W. Driessen, P. van Gerven, E. Vanassche

Ilishkina, D.
Self-Regulation of the Motivation to Learn Date of defense: December 19, 2023
Supervisors: J.J.G. van Merriënboer, A.B.H. de Bruin

Barber, C.
Aligning education to societal needs: Evaluating social accountability in health professions education
Date of defense: December 20, 2023
Supervisors: C. van der Vleuten, S. Chahine

Nicholson, J.
Partnering for Success: Librarian Involvement in Assessment for Learning; Exploring implementation of librarian-led observational assessment of evidencebased medicine skills in medical students Date of defense: December 20, 2023 Supervisors: A.B.H. de Bruin, C. van der Vleuten, A. Kalet

## SHE HIGHLIGHTS - OUTPUT AND IMPACT

## Articles

Al-Bualy, R., Ekpenyong, A., \& Holmboe, E. (2023). Effective Clinical Competency Committee Meeting Practices: Before, During, and After. Academic Medicine, 98(11), 1340.
Anjorin, O., Bakeroot, V. L., Zanting, A., Krumeich, A., \& Busari, J. O. (2023). Exploring the Effect of Discrimination on Ethnic Minority Medical Students' Mental Well-Being in the Netherlands. Trends in Higher Education, 2(4), 570-584.
Biwer, F., Wiradhany, W., oude Egbrink, M. G., \& De Bruin, A. B. (2023). Understanding effort regulation: Comparing 'Pomodoro'breaks and self regulated breaks. British Journal of Educational Psychology, 93, 353-367.
Busari, J. O., \& Chan, M. K. (2023). Healthcare leadership and the path to social justice through academic publishing. BMJ Leader, 7(Suppl 2), e000878.
Caretta-Weyer, H. A., Eva, K. W., Schumacher, D. J., Yarris, L. M., \& Teunissen, P. W. (2023). Postgraduate selection in medical education: A scoping review of current priorities and values. Academic Medicine, 98(11S), S98-S107.
Klasen, J. M., Teunissen, P. W., Driessen, E., \& Lingard, L. A. (2023). Trainees' perceptions of being allowed to fail in clinical training: A sense making model. Medical Education, 57(5), 430-439.
Kusurkar, R. A., Orsini, C., Somra, S., Artino Jr, A.
R., Daelmans, H. E., Schoonmade, L. J., \& van der

Vleuten, C. (2023). The effect of assessments on
student motivation for learning and its outcomes in health professions education: a review and realist synthesis. Academic Medicine, 98(9), 1083-1092. Loosveld, L. M., Driessen, E. W., Theys, M., Van Gerven, P. W., \& Vanassche, E. (2023). Combining Support and Assessment in Health Professions Education: Mentors' and Mentees' Experiences in a Programmatic Assessment Context. Perspectives on Medical Education, 12(1), 271.
Smirnova, A., Chahine, S., Milani, C., Schuh, A., Sebok-Syer, S. S., Swartz, J. L., ... \& Schumacher, D. J. (2023). Using resident-sensitive quality measures derived from electronic health record data to assess residents' performance in pediatric emergency medicine. Academic Medicine, 98(3), 367-375.
Stalmeijer, R. E., \& Varpio, L. (2023). Do you see what I see? Feeding interprofessional workplace learning using a diversity of theories. Advances in Health Sciences Education, 28(5), 1657-1660.
Tremblay, M. L., Rethans, J. J., \& Dolmans, D. (2023). Task complexity and cognitive load in simulation based education: A randomised trial. Medical Education, 57(2), 161-169.
Verheijden, M., Giroldi, E., van den Eertwegh, V., Luijkx, M., van der Weijden, T., de Bruin, A., \& Timmerman, A. (2023). Identifying characteristics of a skilled communicator in the clinical encounter. Medical Education, 57(5), 418-429.
Yaros, J., de Mortier, C., oude Egbrink, M. G., Evers, S., \& Paulus, A. (2023). Identifying costs in health professions education: a scoping review protocol. BMJ open, 13(10), e074410.

## Invited lectures for scientific audiences

- De Nooijer, J., Moser, A., Gorter, S. (2023). Hitchhiking into the interprofessional galaxy. Invited keynote presentation at the NVMO conference, Maastricht, The Netherlands.
- Loosveld, L., \& Roebertsen, H. (2023). Maastricht University Faculty Development and ASPIRE approach. Invited webinar at the faculty of Medicine Ramathibodi Hospital Mahidol University, Bangkok, Thailand.
- Kinnear, B. (2023). Humans Are Not Bread: the Case for Competency-based Timevariable training. Invited plenary - Johns Hopkins University Institute for Excellence in Education.
- Govaerts, M. (2023, March). Programmatic Assessment. Invited keynote lecture; Onderwijsmiddag Erasmus MC, Rotterdam.
- Biwer, F. (2023, April). Study Smart studenten ondersteunen om slim te studeren. Invited plenary speaker, presented at symposium Effectief Ieren, Oratie Gino Camp, Open Universiteit, Heerlen, the Netherlands.
- De Bruin, A.B.H. (2023, June). Effort is the New Smart: Supporting Students in the SelfRegulated Use of Desirable Difficulties. Invited keynote, presented at the IAMSE conference (International Association for Medical Science Educators), Cancún, Mexico.
- Verstegen, D.M.L. (2023, July). Studentcentred learning in blended programmes. Invited webinar at the Centre for Health

Science Education (CHSE), University of the
Witwatersrand, Johannesburg, South-Africa.

- Könings, K.D., Al-Bualy, R., Meeuwissen, S., \& Suliman, S. (2023, August). Co-creation with learners: An unexploited value for faculty development. Invited plenary at the International Conference on Faculty Development in the Health Professions (ICFDHP), Glasgow, UK.
- Meeuwissen, S.N.E. (2023, October). BITESIZE - Team learning at work: towards constructive conflicts in interdisciplinary and interprofessional teamwork. Invited webinar at ASME (Association for the Study of Medical Education).
- Hsu, H., MacDonald, G., Maurice, S., Oyedele, O., Teunissen, P., \& Eva, K. (2023, October) Defining and interpreting educational comparability in distributed medical education. Invited presentation at the 2023 CHES (Centre for Health Education Scholarship) Celebration of Scholarship. Vancouver, CA.
- Stalmeijer, R.E., (2023, October). Do you see what I see? Challenging intraprofssional workplace-based education norms. Invited lecture, presented at the Childrens' Hospital of Philadelphia, Philadelphia, USA.


## Innovative designs (instructional or educational)

- https://Anatomytool.org a website for anatomy, histology and embryology teachers and students. Collaboration of several Dutch and Flemish universities.
- Moonen - van Loon, J.M.W. (2023). CompositeReliability: Determine the Composite Reliability of a Naturalistic,
Unbalanced Dataset https://github.com/jmoonen/
CompositeReliability
- https://palliaweb.nl/onderwijsmaterialen
- https://search.edusources.nl/materialen/631dc209-2a4e-4e1e-bd26-cd8b611821a4/differentieren-in-het-hbo


## Awards, grants, AMEE Guides and other

- Biwer, Felicitas (2023, September).

Impact Award for dissertation, Maastricht University.

- Meeuwissen, S.N.E. (2023, May).

Doctoral Report Award NVMO, Nederlandse Vereniging Medisch Onderwijs. Bi-annual Doctoral Report Award.

- Sehlbach, C. (2023).

EDLAB Educational Research Fellowship awarded by Maastricht University, 2023-2024. Value € 40.575

- Compen, B., Loosveld, L., Roebertsen, H., Cantillon, P., van Schalkwyck, S., and Dolmans., D.

AMEE Faculty Development Research Grant, awarded by the AMEE FD Committee. Value: $£ 7000$

- Phaneuf, J. C. (2022).

AO Fellowship in Medical Education Research, awarded by the AO Foundation (main applicant). Value: €18.000.

- De Nooijer, J., Stalmeijer, R.E., Baeusaert, S., Savelsbrg, H., Crombach, F. Huynen M. (2023). Dream teams for a green future: on the role of interprofessional identity in collaborative and sustainable practices in health care. Comenius Leadership Grant. Value: $€ 521.360$.
- De Bruin, A.B.H. (2023).

SELFLEX: Towards Evidence-informed Support for Self-regulation of Flexible Learning. NWONRO. Value: €388.233.

- De Bruin, A.B.H. (2023).

Pausing with(out) Peers: Self- versus Co-regulation of Breaks to Optimize Learning. NWOHestia. Value: €116.731

- Cleland, J., Blitz, J., Cleutjens, K. B., Oude Egbrink, M. G., Schreurs, S., \& Patterson, F. (2023). Robust, defensible, and fair: The AMEE guide to selection into medical school: AMEE Guide No. 153. Medical Teacher, 45(10), 1071-1084.


## Other noteworthy activities and achievements

- Busari, J.O. (2023, April).

Honorary Fellow, Royal College of Physicians and Surgeons of Canada.

- Isbej, L. (2023).

Excellence in Teaching Award 2023, Pontificia Universidad
Católica de Chile.

- Van der Vleuten, C. (2023, January).

Farewell symposium \& lecture, Maastricht, The Netherlands.

- Van Merriënboer, J.J.G. (2023, March).

Farewell symposium \& lecture, Maastricht, The Netherlands.

## SHE COLLABORATES

For SHE Collaborates, the year 2023 started with a leadership change. After 10 years of energetic leadership, Geraldine Beaujean passed on the baton to Emmaline Brouwer. Throughout the year, the SHE Collaborates team continued their capacity building activities globally in various project collaborations of which a few examples are highlighted below. The team has also contributed substantially to education activities in various teaching programs within and beyond FHML, increased their presence on social media (most notably on LinkedIn and YouTube) and initiated activities in collaboration with SHE Research, including the co-leadership of the SHE Special Interest group on Globalization and Diversity.

## SHE Collaborates staff and project managers

Geraldine Beaujean, Marlieke Bouwmans, Emmaline Brouwer, Yoka Cerfontaine, Joyce Grul, Marijke Kruithof, Mohammed Meziani, Rikus Nieuwenhuis, Tchitula Teuns, Hennie Sijen.

Examples of partnerships and ongoing projects in 2023
Health information and technology for improved health education in South-East Asia (HITIHE) - Cambodia \& Indonesia

Lead Organization: Institute of Tropical Medicine, Antwerp, Belgium
Funded by: Erasmus+ Programme of the European Union Capacity Building in the field of Higher Education (CBHE); and cofunded by all project partners
Project Duration: November 2019 - November 2023
Project Manager SHE: Yoka Cerfontaine

## Partners:

- University of Health Sciences, Institute of Technology Cambodia and
- National Institute of Public Health, Cambodia. Indonesia:
- Universitas Gadjah Mada, Indonesia
- Universitas Sebelas Maret, Indonesia
- ISGlobal, Sant Joan de Déu Hospital, Spain
- Vall d'Hebron Institute of Research, Spain
- School of Health Professions Education, Maastricht University, the Netherlands
- Institute of Tropical Medicine, Antwerp, Belgium


The significance of inadequate access to pertinent health information in Low-and Middle-Income Countries (LMICs) such as Indonesia and Cambodia is particularly pronounced when considering neglected tropical and infectious diseases, which predominantly afflict these regions. This project seeks to enhance the capabilities of two key support sectors within Higher Education Institutions: the techno-pedagogical personnel and health librarians. These two groups will serve as catalysts in promoting the adoption of innovative techno-pedagogical methodologies among academic staff, fostering the establishment of a proficient network of healthcare experts through the creation of open-access platforms, and aiding teaching and academic staff in resource-sharing endeavors via these platforms. This endeavor ultimately aims to elevate the standard of Health Science education and, consequently, enhance healthcare provision in South-East Asia.

Through SHE Collaborates, techno-pedagogical and library staff from Maastricht University have conducted online and on-site training sessions for staff from partner institutions in Cambodia and Indonesia. Additionally, SHE Collaborates has spearheaded the Quality Plan within the project. Utilizing the Theory of Change framework, we have overseen the necessary change management processes to bolster technology integration in education and to enhance the standing of specialized health librarians. Additionally, staff from SHE Collaborates supervised two master's Global Health students, who conducted their theses within the framework of this project, thereby making significant contributions to the Theory of Change.

Dirisana + (Erasmus) - Cooperation for innovation and the exchange of good practices - Capacity Building in the field of Higher Education - South Africa \& Namibia

Lead organization: University of Pretoria
Funded by: Erasmus+ Programme of the European Union Capacity Building in the field of Higher Education (CBHE); and cofunded by all project partners
Project Duration: January 2021 - July 2024
Project Manager: Rikus Nieuwenhuis

## Partners:

- University of Pretoria (UP), South Africa
- Sefako Makgatho Health Sciences University (SMU), South Africa
- University of the Witwatersrand (WITS), South Africa
- University of Namibia (UNAM), Namibia
- Welwitchia Health Training Centre, Namibia
- Maastricht University (UM), the Netherlands
- University of Turku, Finland

In March 2023, SHE's Prof. Jascha de Nooijer and Rikus Nieuwenhuis visited the partners to discuss, view and explore opportunities in Interprofessional Education and Collaborative Practice (IPECP). Please watch for an impression.

In July 2023, Abigail Dreyer (WITS) attended the Summercourse at SHE. She was accompanied by Dr. Renate Eccles (UP) to continue benchmarking best practices and work on the Dirisana IPECP
outputs.During the same month, Dr. Danielle Verstegen visited WITS in her capacity as supervisor of candidates enrolled in the UM PhD program. She also kindly visited UP to deliver an information session on the PBL system employed at UM.

Towards student centered medical education at UNIFACISA Brazil

Lead organization: SHE Collaborates
Project Duration: 2021-2028
Project Manager: Marlieke Bouwmans

SHE Collaborates has successfully partnered with Unifacisa, a prestigious university in the North of Brazil, to revolutionize their medical program. The program has been transformed into a problem-based, student-centered education model that emphasizes small group learning. The first two years of the partnership were dedicated to staff training in the principles of student-centered learning, and the development of the new curriculum. The implementation of the new curriculum for first-year students began in August 2023, marking a significant milestone in the success of this partnership. The educational team at Unifacisa achieved positive results through hard work and dedication, replacing initial concerns with enthusiasm for the more active and participatory teaching method. The curriculum will continue to be built and fully implemented under our supervision, as the students progress through the new medical programme.

Example of new projects and partnerships in 2023
Entrepreneurship and Health Professions Education in East Africa - Kenya

Lead organization: SHE Collaborates
Funded by: Nuffic OKP (OKP-TMT.23/00094)
Project Duration: June 2023 - June 2024
Project Manager: Geraldine Beaujean
Partners:

- Hanze University of Applied Sciences, Groningen
- North Coast Medical Training College (NCMTC), Kenya
- Pwani University, Kenya

This project has to been seen in a sequence of projects. Over the past years we worked together in 2 specific areas: Entrepreneurship and Health Professions Education. The first focus is predominately the theme where HUAS takes the lead, the latter where SHEC UM takes the lead.

In October 2023, the Health Professions Education strand was finalized with great success by the team at North Coast Medical Training College (NCMTC) conducting a training for the East and South African College of Nursing and Midwifery (ECSACONM), as conclusion to their 'Train the Facilitator' course in Health Professions Education, supported by SHE Collaborates and Carol Nyambura, our consultant trainer in Kenya. During this 1-year
project, we built on extended prior collaborates with NCMTC, in which we developed and implemented 'Enabling Learning' courses at different levels and now also in a one-week executive course, facilitated by trainers from NCMTC and Pwani University. Health Profession trainers from Kenya, Tanzania, Seychelles, Rwanda, Mauritius, eSwatini, Botswana and Uganda described the course as 'mind blowing' and 'life changing'!

The second part of the project will focus on Entrepreneurship in two areas: to co-develop and operational plan for the entrepreneurial center at NCMTC, including organizational structure, goal and activities. Secondly, the entrepreneurship course offered to all students will be evaluated and staff will be coaches to improve the course based on the feedback from students.


Join the Family: from Campus to Community! Interprofessional Education and Collaboration in Indonesia

At the request of the Indonesian Ministry of Health (Kemenkes) and in close cooperation with the Dutch Embassy, SHE Collaborates was invited to visit three Universities for Applied Sciences (Poltekkes) on three different islands in Indonesia in September 2023.

The aim is to strengthen nursing education to meet international standards by building capacity of the teaching staff. Many stakeholders are involved in improving healthcare at the primary level, which aligns with the ultimate goals of Kemenkes. During the visit in September, all three Poltekkes opened many doors for the SHE Collaborates colleagues and they spoke to a great number of committed health workers, health administrators, teachers and students. Together with Hogeschool Zuyd and the Indonesian partners, SHE Collaborates developed a detailed project proposal
to work on a pilot project 'Capacity Building Health Polytechnic to strengthen interprofessional care at community level through the 'Family Medicine Approach' for 3 years and will be submitted for funding to the Rijksdienst voor Ondernemend Nederland (RVO).

In the final quarter of 2023, several Indonesian universities approached SHE Collaborates for collaboration and capacity building. Since one of their areas of interest is Interprofessional Education and Collaboration, we saw an opportunity to have a greater impact on the healthcare system at the primary level in Indonesia. Therefore, we formed a group with several Indonesian universities and the Poltekkes already involved, as well as Kemenkes and partners from Belgium and Spain. Together, we started collaborating to develop a project proposal titled 'Join the Family: from Campus to Community! Interprofessional Education and Collaboration for an Erasmus+ Capacity Building in the field of Higher Education grant.


## FUTURE OF SHE

The Annual Report of 2023 showcases the continued impact of the School of Health Professions Education (SHE) at Maastricht University on the global landscape of healthcare education. Through a comprehensive blend of research, education, and innovation, SHE maintains its position as a leader in the field, with both qualitative and quantitative evaluations attesting to its influence. As we reflect on the achievements of the past year and look towards the future, the School of Health Professions Education at Maastricht University remains steadfast in its mission to drive positive change in healthcare education. Through the continued integration of research, education, and innovation, we are poised to make an even greater impact in the years to come.

SHE is dedicated to strengthening the synergy between its core activity domains: SHE Research, SHE Collaborates, and SHE Educates. The development and presentation of our 2024-2030 Research Program enables us to prioritize topics that demand additional attention, further enhancing health professions education research and practice. Our commitment to connecting theory with research and practice extends beyond borders, contributing to advancements in healthcare education on local, national, and global scales. As we move forward, our focus remains on investing in our people, nurturing talent, and fostering collaborations guided by our strategic priorities. This steadfast dedication is what helps SHE to make an impact on the next generation of healthcare professionals.


## $\square$ - $\square$ School of Health Professions Education

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Pictures by Stokvis, Maartje (p. 1, 3, 11, 12, 28)

More information:https://www.maastrichtuniversity.nl/research/school-health-professions-education-0

Maastricht University

