

H-P-E Research Program

2024-2030

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HEALTHCARE ENVIRONMENTS THAT FOSTER LEARNING

PROFESSIONALS THAT ARE SUSTAINABLY COMPETENT

EDUCATION THAT IS DESIGNED FOR CONTEXT

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.

SHE has a long history of investing in health professions education (HPE) scholarship. This has led to numerous scientific and practical advancements in HPE and beyond, for instance on topics such as problem-based learning, assessment, and curriculum design. SHE's research activities result from deliberate collaborative efforts: between research and practice, between scholars from various scientific disciplines, and between all stakeholders of health professions education. Such collaborations happen locally with colleagues at the Faculty of Health Medicine and Life Sciences (FHML) and other partners at Maastricht University, nationally with other research and higher education organizations, and globally with a wide range of diverse individuals and institutions.

DEVELOPMENT OF H-P-E RESEARCH PROGRAM

This Research Program builds on SHE's 2018-2023 Research Program entitled Task-Centered Learning Environments in the Health Professions. The 2018-2023 program described the range of research domains that SHE is active in. Development of the 2024-2030 Research Program began in 2022 with a process of co-construction. 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.

SHE's VISION

Optimal healthcare requires optimal education of future and current healthcare professionals. The SHE Research Program contributes to the realization of this vision by focussing our scientific efforts on the main challenges to achieve this vision. SHE works toward a world in which all healthcare professionals are well educated and in the best position to contribute to high-quality care.

SHE's MISSION

SHE aims to be a leading hub for research and innovation of health professions education (HPE)

worldwide. We choose to make an impact by combining research, education, and international collaboration activities. We recognize that scientific and educational challenges in HPE vary greatly throughout the world. We also increasingly recognize power dynamics within the global field of HPE research and practice, and how SHE is situated in a historical dominant and relative privileged setting in this field. We deliberately engage with a broad and global network of healthcare practitioners, researchers, educationalists, teachers, and policy developers who share our passion for the development of HPE - and with whom we can learn to do this equitably.

SHE'S 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.

H *HEALTHCARE ENVIRONMENTS THAT FOSTER LEARNING*

Healthcare environments vary greatly: from in-patient settings in large inner-city hospitals to remote first aid-centers, and from nursing homes to physiotherapy offices, to give just a few examples. Healthcare's main objective is optimal healthcare for clients, patients and populations, whether it be care, cure, or prevention oriented. Peoples' experiences and outcomes are vital starting points for evaluation of the quality of healthcare. The primary challenge in this research aim is creating 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.

Healthcare professionals in training often spend considerable parts of their training in practice. Research lines that are part of this aim focus on how educational concepts and tools, such as curriculum design models, assessment approaches or intercultural education, can optimally support learning from practice. For example, research that focuses on the organizational, team, and individual factors that impact professionals' ongoing development is necessary to further integrate learning in healthcare environments. Another example of research aligned with this goal are studies investigating the features of constructive and safe learning environments in healthcare settings.

P *PROFESSIONALS THAT ARE SUSTAINABLY COMPETENT*

Healthcare professionals and students in these professions should be ready to address challenges at different levels. Ultimately, they need to contribute to improving patients' and clients' healthcare experiences, reducing healthcare costs, and addressing population health, including health disparities and inequities. Next to this, individuals and teams need to attend to their own development and well-being throughout their (educational) careers. Education is the way to prepare for and support life-long learning behaviours that can address these challenges. The primary challenge in this research aim is understanding 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 will require scientific insights from different directions to come together. For instance, research on self-regulation, well-being and resilience, and contextual competence will need to be connected to support learning in various contexts. Scientific insights on seemingly divergent topics such as diversity and equity in healthcare, cost-conscious healthcare, planetary health, and the promises of technology enhanced

learning could be combined to develop creative ways to connect professionals in high- and low-resource settings to learn with and from each other. This research aim also 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. After finishing their training, healthcare professionals need to continue developing in order to contribute to optimal care. While this development is often focused on their individual capabilities, they usually work in interprofessional teams, and part of the required professional development is directed at team functioning and improvement of quality of care.

E *EDUCATION DESIGNED FOR CONTEXT*

Education of learners ranging from the undergraduate level to continuing professional development happens in a diversity of contexts, from formal education in classroom settings to non-formal and informal learning in (healthcare) practice settings. Contextual variation impacts what optimal education looks like. For instance, teaching communication skills to undergraduate medical students in a rural medical college requires a different approach than teaching these skills to residents in a postgraduate geriatric program in a large urban medical center. The primary challenge within this research aim is understanding which designs work for which goal, and in which context. Moreover, how can learners be supported in learning across educational, professional, social, and cultural contexts? Understanding how contexts vary, unraveling the essential elements of contexts that ask for adaptation in the design of education, and consequently how to adapt the design or co-create new designs with all stakeholders involved, are main themes within this research aim.

This understanding pertains to matters of instructional design and assessment, which we view as inherently intertwined. How educational innovation can be scaled from one context to the next also requires dedicated research. On the other end of the spectrum, examining the boundary conditions of contextual adaptation by researching what aspects of educational design

are less sensitive to contextual variation, and when adaptations could be disadvantageous, are important questions too. A global perspective is needed to allow for diverse individual and contextual needs in an inclusive way.

Complementarity of SHE's research aims

By design, our research aims are interconnected. This is a result of different lines of scientific inquiry's being relevant to multiple aims, such as research on assessment, instructional design, or optimal learning environments. Moreover, the challenges identified in each aim are themselves connected. Most students start their path towards becoming professionals in the context of educational institutions. Healthcare environments are not only places where healthcare is practiced but often also provide formal educational activities that need to work for that specific context. The intentional complementarity of the three research aims enables a holistic approach to tackling the globally shared challenge of optimally educating all healthcare professionals so that they are in the best position to contribute to high-quality care.

STRATEGY

We intend to use our research aims as a framework for research, collaborations, and policy decisions. The research aims are intended to inspire (new) cross-linkages 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 self-regulated learning, instructional design, participatory design, workplace-based learning and assessment, programmatic assessment, interprofessional education, internationalization, and contextualization of education. SHE's work is further supported by methodological expertise, which is similarly diverse at SHE. Methodological approaches include quantitative and qualitative approaches, and combinations of both. Another foundation for SHE's contributions to the advancement of science is our continued investment in open science. In line with Maastricht University's policies, we promote the

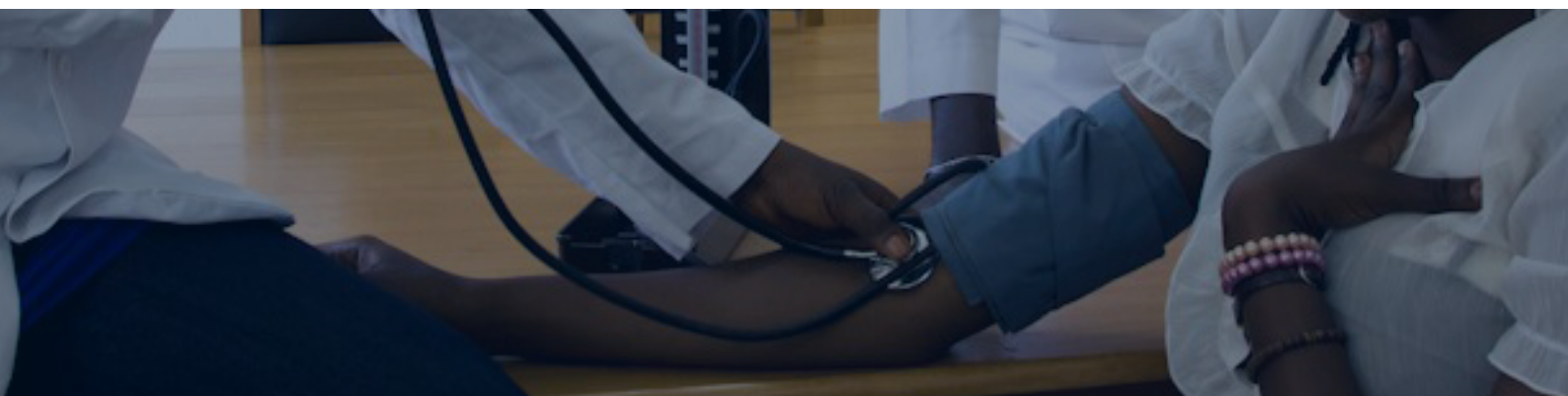
publication of scientific information in ways that enable Open Access. We stimulate findability, accessibility, interoperability, and reuse (FAIR) of data, and we work in line with Maastricht University's Code of Conduct on Integrity. Finally, in line with the expertise and capacity of SHE, we also engage in meta-research, which uses an interdisciplinary approach to study research itself, and is an important part of contributing to a trustworthy and robust body of scientific knowledge.

CULTURE OF COLLABORATION

People give substance to the challenges addressed in the three research aims, and they do so through collaborations. SHE, FHML, and Maastricht University are home to people from widely different backgrounds. This multitude of backgrounds, combined with the richness of partners and collaborators in our network, enables the three research aims to be viewed and examined through different lenses. Furthermore, people from a diversity of regions globally are connected to SHE, for example as (former) PhD candidates, part of a (PhD) research team, through international partnerships in SHE Collaborates projects or as (former) students of our Master of Health Professions Education (MHPE). SHE will initiate and support existing and new collaborations in line with this research program. The values that characterize SHE's approach are open, inquisitive, socially responsible, collaborative, innovative, and ambitious. Being socially responsible, for example, requires attention to the changing and diversified needs of our global and local

community. Together, these values shape the academic culture we aim for and the way in which we collaborate with others. Enacting these values is a continuous work in progress, and we always look for improvement in our own approaches. As SHE, we look forward to jointly working on the research aims of the H-P-E Research Program 2024-2030!

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