

RESEARCH REVIEW
Pedagogical and Educational Sciences
2018-2023

ONDERZOEKERIJ

De Onderzoekerij
Vondellaan 58
2332 AH Leiden

Phone: +31 6 24812176
Email: info@onderzoekerij.nl
Internet: www.onderzoekerij.nl



Preface

What good research is and how it can be brought about is an open and complex question. It is a question that must be answered by individual researchers, research groups, research programmes, research institutes, faculties, and universities. Answers to the questions are diverse as disciplines and research fields are diverse. Answers evolve over time and contexts make answers more or less suitable. Given the open and complex nature there are no right or wrong answers although some answers are better and others are worse. Sharing these answers and subjecting them to critical scrutiny in a research assessment exercise is an act of research maturity, despite the vulnerability it may entail.

This document reflects the outcomes of such a research assessment exercise. The report adheres to the guidelines of the Strategy Evaluation Protocol (2021-2027) published under the authority of the Universities of the Netherlands (UNL), the Dutch Organisation for Scientific Research (NWO), and the Royal Netherlands Academy of Arts and Sciences (KNAW). The research assessment focused on the fields of Pedagogical Sciences and Educational Sciences. In addition to the Interuniversity Centre for Educational Sciences (ICO), research programmes, institutes and/or faculties from the following universities participated in the assessment and shared their answers through self-reports: the University of Amsterdam, University of Groningen, Leiden University, Maastricht University, the Open Universiteit of the Netherlands, Erasmus University Rotterdam, and Utrecht University. Self-reports from these institutions were discussed with a review committee comprising scholars from diverse research backgrounds and countries, along with two PhD candidates. The entire process was organised and supported by De Onderzoekerij.

It was my privilege to chair the committee's activities. I extend my gratitude to my fellow committee members for the interesting and open discussions on research, particularly in the fields of pedagogical and educational sciences, as well as for their extensive reading and writing efforts, their dedication and their good spirit. The support by De Onderzoekerij was invaluable. Esther Poort coordinated the entire exercise and, together with Annemarie Venemans, served as secretary during the discussions. Together they also assisted in the elaboration and editing of this report. But importantly, I thank the management, senior and junior staff members as well as the PhD candidates of the participating institutions for all the preparatory work and the candid and open discussions which provided insights and demonstrated a strong commitment to high-quality pedagogical and educational research. This report reflects their answers on what constitutes good research and how it can be brought about, along with our reflections. I hope this report can further strengthen the high quality of research in pedagogical science and educational sciences in the Netherlands.

Jan Elen

Chair of the Committee



1. Introduction

1.1 Terms of reference for the assessment

The quality assessment of research in pedagogical sciences and educational sciences is carried out in the context of the Standard Evaluation Protocol for public research organisations by the Universities of the Netherlands (UNL), the Netherlands Organisation for Scientific Research (NWO), and the Royal Netherlands Academy of Arts and Sciences (KNAW).

The Committee was asked to assess the scientific quality and the relevance and utility to society of the research conducted by research institutes of eight universities in the reference period 2017-2022, as well as its strategic targets and the extent to which it is equipped to achieve them.

The participating research institutes are:

- Freudenthal Institute, Utrecht University
- Nieuwenhuis Institute for Educational Research, University of Groningen
- Department of Education and Pedagogy, Utrecht University
- Faculty of Educational Sciences, Open Universiteit
- Institute of Education and Child Studies, Leiden University
- School of Health Professions Education, Maastricht University
- Research Institute of Child Development and Education, University of Amsterdam
- Pedagogical Sciences, Erasmus University Rotterdam
- Interuniversity Centre for Educational Sciences, National research school

Accordingly, three main criteria are considered in the assessment: research quality, relevance to society, and viability. During the evaluation of these criteria, the Committee was asked to incorporate four specific aspects: open science, PhD policy and training, academic culture and human resources policy.

This report describes findings, conclusions and recommendations of this external assessment of the research of pedagogical and educational sciences.

1.2 The Review Committee

The Board of the participating universities appointed the following members of the committee for the research review:

- Prof. dr. Jan Elen, KU Leuven, Belgium (chair)
- Prof. dr. Dagmar Strohmeier, Research Centre Linz, Austria
- Em. Prof. dr. Wilma Vollebergh, Utrecht University, Netherlands
- Prof. dr. Roger Säljö, University of Gothenburg, Sweden
- Prof. dr. Jennifer Symonds, University College London, United Kingdom
- Prof dr. Nienke van Atteveldt, Vrije Universiteit Amsterdam, Netherlands
- Brittney Root MA (PhD candidate), Vrije Universiteit Amsterdam, Netherlands
- Bob Kapteijns MSc (PhD candidate), Radboud University, Netherlands

The Boards of the participating universities appointed dr. Annemarie Venemans and drs. Esther Poort of De Onderzoekerij as the committee secretaries. All members of the Committee signed a declaration and disclosure form to ensure that the committee members made their judgements without bias, personal preference, or personal interest, and that the judgment was made without undue influence from the institutes or stakeholders.



1.3 Procedures followed by the Committee

The Committee proceeded according to the Strategy Evaluation Protocol (SEP) 2021-2027. The assessment was based on the documentation provided by the eight research programmes and the research school, as well as interviews with four groups of representatives from each programme: the programme's management, selections of senior researchers, selections of junior researchers, and PhD candidate representatives. On Friday, interviews were held with the national research school ICO, including one with the management and one with PhD candidates. Furthermore, a joint interview was conducted with the directors of the eight research programmes and ICO. The interviews took place from February 3 to February 7, 2025 (see Appendix A).

Prior to the site visit, the Committee reviewed comprehensive documentation, including self-evaluation reports from the eight research programmes and the research school, along with their appendices. Additionally, the Committee was presented with a distinct document titled *Pedagogical and Educational Sciences in the Netherlands, Cover note for research evaluation 2018-2023*. This document provided an overview of the Dutch research landscape at universities, including explanations of the funding landscape, the PhD system in the Netherlands, and recent developments in government policies. It also offered insights into the specific domain of pedagogical and educational sciences. Additionally, this document encompasses the findings of a bibliometric analysis, providing insight into the scientific impact and level of societal connectedness of the research units. In line with the qualitative nature of the current research review —focused on evaluating both scientific and societal impact rather than comparing participating institutes—these results were presented collectively for the entire field. The analysis focused on indicators of scientific impact as well as societal connectedness.

The Committee discussed its assessment of each research programme during several sessions of the site visit. The Committee chair had a coordinating role in the writing procedure and delegated the writing of sections to members of the Committee. The members of the Committee commented by email on the draft report. The draft version was then presented to the research programmes for factual corrections and comments. Subsequently, the text was finalised and presented to the Executive Boards of the eight universities.



2. General remarks

2.1 Introduction

After thoroughly reviewing the meticulously written and edited self-evaluation reports (and their appendices) of eight institutes/faculties/programmes and one research school active in the fields of Pedagogical Sciences and Educational Sciences, the Committee had the privilege of engaging in enriching conversations on research-related issues with the management, PhD candidates, and junior and senior staff members. The Committee reaffirms that the research in Pedagogical and Educational Sciences in the Netherlands is of high quality, often surpassing international standards. The research is diverse, encompassing fundamental and curiosity-driven inquiries on the one hand and applied studies conducted for and/or with societal partners on the other. Despite various contextual challenges, the institutes appear resilient and committed to conducting relevant research at a very high and internationally recognised academic level.

In addition to observations, this report offers recommendations intended to further encourage the strengthening of the excellent work being done.

2.2 Research quality

As evidenced in the jointly written cover note and the specific self-evaluation reports, research in pedagogical and educational sciences is impressively broad and diverse. It addresses a wide range of research questions, rooted in various theoretical perspectives and based on a diversity of epistemological assumptions; it employs a broad range of methodological approaches. The research spans the spectrum from theoretical/fundamental to practical/applied, with a noticeable trend towards more practice-based and practice-oriented studies developed in cooperation with external societal partners. This trend is influenced by funding structures and societal demands. Regardless of the research nature, multiple indicators (from traditional citation indices to popular books and widely used tools and guidelines) attest to the quality of the work.

The institutes employ different context-specific strategies to define their research profiles and to align them with initiatives such as the Sector Plan SSH, with decisions arising from ample reflection and deliberate thought. What unites these institutes is their shared approach to science: they investigate relevant questions while maintaining a strong interest in both fundamental insights and practical applications.

While collaboration already exists through various networks, institutes also reflect on whether their current efforts are optimally structured and effective. A stronger, more coordinated collaboration across institutes could help reinforce their collective position and visibility towards policymakers, ensuring that the importance of pedagogical and educational sciences is clearly articulated. Such collaboration does not mean losing individual institutional identities—on the contrary, differentiation and cooperation can coexist. Strengthening connections within the field can support networking, mutual learning, and identity-building while also fostering interdisciplinary and transdisciplinary research.

This ongoing dialogue is essential: interdisciplinary collaboration can only thrive when rooted in a strong disciplinary foundation. The Committee encourages institutes to continue refining their collective vision, identifying effective platforms for collaboration (also between pedagogical and educational scientists), and maintaining discussions on the role and positioning of pedagogical and educational sciences in the broader research landscape.



2.3 Societal relevance

Research in Pedagogical and Educational Sciences addresses issues that are intrinsically relevant to individuals and societies, presenting advantages as well as methodological challenges. The relevance is easily recognised and made visible, yet the research may also critically examine choices made by individuals and decision-makers. The Committee encourages institutes to reflect on their role with respect to the development of individuals, as well as societies, and to continue enriching the public debate by highlighting scientific insights and findings. Additionally, institutes may combine efforts to reflect on the collective impact of their research on societal issues, and to enhance visibility through collaborative valorisation within shared research themes.

The institutes engage with practice in various ways, including numerous dissemination activities and intensive collaboration with societal partners who may request the investigation of particular research questions and participate in the research. Societal partners can be research users, partners, or co-researchers (e.g., 'external' PhD candidates). In these collaborations, the processes are increasingly valued as much as the research outcomes.

However, while societal relevance is widely acknowledged, a clear overarching strategy on how to approach and enhance it deserves continuous attention. The Committee recommends that each institute further develop its own strategic approach to societal engagement, ensuring balance in their research programmes. This includes defining target audiences, clarifying objectives, considering publishing in Dutch, and identifying effective modes of collaboration to maximise impact.

2.4 Viability

The Committee is impressed by the enthusiasm and engagement of junior and senior staff members, as well as PhD candidates. Clearly, conducting research in the reviewed institutes is more than just 'work'; researchers are passionate about their studies, engaged in in-depth analyses and conceptual clarifications, and proactive in sharing both the research process and its outcomes. Together with good research facilities and effective support structures, this provides a solid foundation for future research.

Institutes are aware of challenges related to budget cuts, political decisions, and societal viewpoints that may not always favour research. In response, they recognise the need for strategic choices and acknowledge that some developments may impact their research. One pressing issue is the significant time investment required for grant applications, combined with the low success rates. Within institutes, examples have shown that a more targeted approach—focusing resources on the most promising funding opportunities rather than multiple researchers competing for the same grants—can be more efficient. The Committee recommends exploring whether this principle can be applied more broadly, not only within but also between institutes, to optimise efforts and increase overall success rates.

2.5 Academic culture

Discussions with PhD candidates and junior and senior staff members revealed signs of an academic culture that is open, supportive, targeted, and increasingly collaborative. Relationships across generations appear strong, creating an environment where people enjoy their work and feel recognised. This culture fosters intensive academic discussions and high research productivity. It is important to note that such a culture requires deliberate efforts from all involved, as highlighted during and after the COVID-19 period.

Workload is broadly recognised as high, and various measures are taken to manage it. Despite these efforts, some experience workload as work pressure due to high research ambitions and external



funding requirements. The Committee observed a broad recognition of this issue, numerous attempts to reduce pressure, and an openness to discuss it. Increased financial pressures may result in initiatives that disproportionately affect dedicated research time. The Committee recommends that institutes continue to prioritise quality over quantity to alleviate work pressure and safeguard research time. Collaboration, including team science, interdisciplinary and transdisciplinary research, and exchanging ideas and practices among institutes, is seen as an effective response to these challenges.

During the review period, clear initiatives were taken regarding research integrity and privacy. Open science is embraced by the institutes, with a large majority of publications being 'open access' in various formats, increased preregistration of research initiatives, implemented data management policies, and accessible data sets in repositories for reuse. Ethical review committees have taken a prominent position, and GDPR rules are complied with. While these contributions are significant for scientific integrity, institutes also report challenges, such as the need for more support (e.g., data stewards, data infrastructure), increasing bureaucracy when applying for and implementing research and difficulties in recruiting sufficient research participants. Institutes make important efforts to support their researchers, and it is recommended that they further discuss the implications of integrity and privacy regulations to minimise any potential negative consequences.

2.6 Human Resources Policy

During the review period, various human resources-related decisions were made. Thanks to provisions from the Sector Plan SSH, several assistant professors were hired and appointed to permanent positions, contributing to more manageable workloads. It is observed that the tasks and support for assistant professors vary across institutes, with dedicated research time differing significantly.

All institutes are engaged in implementing the recent 'Recognition and Rewards' policy, although the degree of implementation varies across institutes. This policy shifts the focus from primarily quantitative research indicators to a broader evaluation framework that includes qualitative elements, as well as accomplishments in teaching, leadership, and societal impact. The adoption of the policy will support staff in experiencing greater fulfillment in their roles and to achieve their career goals, even in an environment where promotions may be challenging. The Committee is highly positive about this development, as it fosters a more balanced and inclusive approach to academic careers.

While the policy is generally welcomed, especially for its emphasis on a more holistic assessment of academic careers, there are still concerns about its practical implementation. In particular, assistant professors expressed a need for greater transparency regarding promotion criteria and the long-term implications of the policy for career progression. Even at institutes that have made significant progress in implementation, questions remain about how different career tracks will be evaluated in practice. It seems important to develop clear markers of recognition for excellence in teaching or excellent contributions to societal impact and find ways to celebrate these achievements in the same way excellent research is recognised.

The Committee recommends that institutes actively work to build trust in the system's sustainability and ensure clarity on how different academic profiles—whether focused on research, teaching, leadership, or impact—are defined and assessed. In particular, the role of research within non-research-dominant career tracks should be explicitly addressed to avoid uncertainty about career development opportunities.



2.7 PhD candidates

The Committee values the candid discussions with PhD candidates and observes that the group of PhD candidates is large, with a growing number of external PhD candidates. Institutes invest significantly in PhD supervision, with junior and senior staff members dedicating substantial effort.

PhD candidates are in diverse situations depending on their funding sources and the amount of time they can dedicate to research (some full-time, others part-time). While institutes strive to offer similar working conditions for all PhD candidates, trajectories and experiences differ, particularly between internal and external candidates. Required teaching time for internal PhD candidates differs between universities.

PhD projects are intensively supported by supervisory teams, closely monitored according to institutional procedures, and using dedicated tools. This is especially the case for PhD candidates in educational sciences who also are monitored and supported by ICO with positive effects (also on the duration of the trajectory).

PhD trajectories often exceed the predefined four years due to personal circumstances and systemic factors. Some institutes have reconsidered dissertation requirements to make PhD trajectories more realistic, for instance reflecting the particularities of applied research projects. External PhD projects tend to be longer and have higher dropout rates, possibly due to weaker links with the academic culture and/or the combination of research with other pressing obligations. The Committee recommends that institutes re-evaluate how they assess the progress of PhD trajectories, to take into account the time external PhD candidates realistically can devote to research. This evaluation can help institutes align PhD expectations with candidates' specific circumstances. It is further recommended to consider greater standardisation of PhD monitoring systems, by, for example, setting up review panels where senior researchers outside of the supervision team give PhD candidates formative feedback on their work.

PhD candidates receive training in various local graduate schools, including methodological training, open science, scientific integrity, privacy, and professionalisation initiatives for future careers. Some candidates attend discipline-specific courses and connect with other researchers in specific research schools. For PhD candidates in the field of Educational Sciences, ICO plays a crucial and valuable role. The Committee enjoyed conversations with PhD candidates and the management of ICO, which balances setting and monitoring standards with supporting PhD candidates in achieving high-level research ambitions. ICO creates a safe academic community for PhD candidates to exchange research experiences and provide mutual support, clearly enhancing the more general support offered by local graduate schools. Unfortunately, not all PhD candidates in the field have the opportunity to participate in a domain-specific research school like ICO.

2.8 Recommendations

To further strengthen research in Pedagogical and Educational Sciences, the Committee suggests the following general recommendations:

- As a group of outstanding research institutes, the ambition should be to continue conversations about future research directions, strengthening collaborations between pedagogical and educational scientists, and fostering the growth of interdisciplinary and transdisciplinary research.
- Reflect on the role of the institutes towards the development of individuals as well as societies and continue to enrich the public debate by highlighting scientific insights and findings on



current issues/challenges within our society. Combining efforts to valorise the relevance of research in these fields will enhance visibility and impact.

- Continue discussing research priorities across institutes to avoid undesirable competition and wasted effort. Collaborations within the context of sector plan priorities already provide a strong starting point.
- Prioritise quality over quantity to alleviate work pressure and safeguard research time. If this is a shared priority across institutes, the focus on quality versus quantity will not lead to unfair competition.
- Continue developing strategic approaches to societal engagement, ensuring balance in their research programmes. Adequate approaches may imply the definition of target audiences, the clarification of objectives, deliberate publishing in Dutch, and the identification of effective modes of dialogue and collaboration to maximise impact.
- Further discuss the implications of integrity and privacy regulations to mitigate undesirable side effects in research activities.
- In the further implementation of the Recognition and Rewards system, institutes should seek to promote trust in its sustainability and provide clarity on the academic nature of different profiles, specifically the role of research in teaching, leadership, and impact profiles.
- Reconsider progress reporting practices for PhD trajectories, taking into account the time external PhD candidates realistically can devote to their research, ensuring that expectations and monitoring align with their specific circumstances.
- Consider both further standardisation of PhD monitoring systems and the inclusion of external senior researchers in these processes to enrich them.



8. School of Health Professions Education, Maastricht University

8.1 Organisation, strategy and targets

The predecessor of The School of Health Professions Education (SHE) was founded in 2005 as a research unit of the Faculty of Health Medicine and Life Sciences (FMHL) at Maastricht University and converted into a graduate school in 2014. Currently, SHE is one of seven research institutes at FMHL. SHE is led by a scientific director, a management team, and a managing director. Its three closely interconnected core activity domains are SHE Research, SHE Educates, and SHE Collaborates.

Since its inception, SHE has focused on impacting healthcare globally through research in healthcare education and translating insights into educational innovation. SHE's core activities revolve around research and development in healthcare education, a focus that is clearly reflected in both its documentation and in the discussions with management and staff. SHE places a strong emphasis on educational innovation, as well as research- and evidence-based implementation across a broad range of areas in healthcare education. As a widely recognised international leader in the field, SHE continues to strengthen its position as a hub for research on training in healthcare professions.

Since the previous evaluation covering the period 2012–2017, several changes have been introduced, refining and sharpening SHE's profile. This process has incorporated insights from earlier evaluations (2018) and a self-initiated midterm review covering the period from 2018 to 2020. A key conclusion from these evaluations was the need to strengthen internal processes to enhance synergy between research, education, and external collaboration—three core pillars of the organisation. The midterm review also led to the implementation of new procedures for monitoring progress. For example, a yearly evaluation cycle, led by the management team, was introduced to analyse and discuss core elements of SHE's activities. Additionally, new strategic priorities were formulated, with a strong focus on increasing the interaction between research and education, as well as fostering international collaboration.

Overall, the documentation reflects that SHE and its management take strategic issues seriously and continuously attempt to work proactively by considering current activities and their feasibility for implementing strategies. SHE maintains a clear and focused strategy aimed at enhancing the education of health professionals.

8.2 Research quality

SHE holds a strong position in research at the intersection of the evolving responsibilities of health professions and the organisation of learning and instruction relevant to these fields. The quality of its research is impressive, as evidenced by its publications and citation scores. SHE publications contribute both to theoretical advancements and to the development and evaluation of learning activities within the sector. Moreover, SHE's research is widely cited across various academic disciplines, extending beyond health professions education into areas such as cognitive architecture, instructional design, and cognitive load theory.

While some leading research staff members have retired, these transitions have been well managed, ensuring that academic output remains at a high level. Indicators described in the self-evaluation report confirm that SHE maintains a strong reputation both nationally and internationally. Its scientific director and senior scholars are widely cited, and the Institute boasts an extensive network of international partners. While direct funding has fluctuated, SHE has maintained a stable success rate in securing



competitive research grants. Its earning capacity remains strong, with over 50% of funding acquired through external competition.

Despite the drop in internal funding, the number of researchers and PhD candidates has not decreased; in fact, staff numbers have grown across various levels, and the number of external PhD candidates has increased by nearly 70% over the period. Academic publishing in peer-reviewed journals has remained stable. However, concerns have been raised about the future, particularly regarding internal and external funding, which could present challenges moving forward.

8.3 Societal relevance

Relevance and impact are cornerstones of SHE strategies. Its relevance is rooted in the strong synergy between research and education, specifically for health professionals. This dynamic collaboration ensures that research drives innovation in educational practices, while advancements in education, in turn, inform and enhance research efforts.

The societal impact of SHE's research is evident both directly—through its application in training in a wide range of healthcare professions—and indirectly, through the activities of SHE Educates and SHE Collaborates. The breadth of SHE's partnerships, spanning clinical settings and health education institutions at regional, national, and international levels, demonstrates the successful realisation of its ambitions for societal relevance and impact.

At the regional and national levels, SHE contributes research-based expertise to areas such as palliative care, the evaluation of cross-border healthcare collaborations, and the development of the Study Smart programme, which has led to the implementation of learning strategy training within and beyond the health sciences. Internationally, SHE collaborates with numerous institutions worldwide, including those in the Global South. Its PhD programme is internationally oriented, serving as key platforms for collaboration during training and fostering long-term partnerships with alumni who hold influential positions in institutions across the globe.

8.4 Viability

As a sizable research unit, SHE has the capacity to effectively address challenges. The main strategy for the future at a general level is to build upon existing strengths—enhancing impact, fostering synergy between core activities, and expanding research output. A key priority is to further solidify SHE's role on the international stage, serving as a hub for research and development in healthcare education.

In December 2023, SHE launched its Research Program 2024–2030, which is structured around three main themes. The first focuses on creating healthcare environments that support learning and development for both teams and individual professionals. The second theme addresses how healthcare professionals can be prepared to meet the specific demands of their work contexts and how they can remain competent throughout their careers. The third theme explores which educational designs work for which goals, and in which contexts. A core strength of SHE is its ability to drive these themes through a collaborative cycle embedded in SHE's three main activities: research, education, and collaboration.

While the Committee recognises the significance of these research areas, it also sees opportunities to further strengthen alignment with the rapid transformations taking place in healthcare education. Emerging technologies—such as virtual reality (VR), augmented reality (AR), extended reality (XR), simulations, and generative AI—are playing an increasing role in health professions education. Many universities and teaching hospitals now have dedicated virtual training centres, where instruction, supervision, and assessment take place using these advanced resources. Although SHE may not be



primarily responsible for developing such technologies, their growing integration into health professions education makes them a highly relevant focus for research and development, one that aligns well with SHE's existing expertise and ongoing activities.

SHE's management and staff are deeply embedded within the healthcare sector and the Faculty responsible for training healthcare professionals. This unique positioning provides a strategic advantage, enabling a comprehensive understanding of the field and fostering strong collaborations at the local, regional, national, and international levels. With extensive experience in research and development, SHE remains well-positioned to contribute meaningfully to advancements in healthcare education.

8.5 PhD policy and programme

SHE has a very active and large PhD programme with 125 active candidates (January 2024). There is an internal PhD programme with 11 to 17 PhD candidates funded through internal resources. These PhD candidates are employees who actively engage in academic life, including participation in the Netherlands Association for Medical Education (NVMO) and the Interuniversity Centre for Educational Sciences (ICO). These networks provide valuable opportunities for academic collaboration and interaction with fellow PhD candidates.

In addition, SHE offers an external PhD programme with 64 to 106 candidates during this review period. These external candidates, who study part-time, receive funding from various external sources and pay tuition and service fees.

Admission to the PhD programme is linked to the course 'Writing a PhD proposal', where candidates receive guidance on proposal writing. At the start of the course, candidates are matched with a pair of supervisors, and their proposals undergo a review at the end of the course for acceptance into the programme. While proposals developed outside the course are also considered, they have a much higher likelihood of being rejected.

Internal and external PhD candidates differ in their expected trajectory duration. Internal PhD candidates are expected to complete their PhD trajectory within five years if they have a 0.8 FTE appointment, while external PhD candidates can extend their trajectory through a continued agreement between SHE and their professional institution. Although the duration of the external PhD trajectory is not a financial concern, the Committee recommends that SHE still take steps to closely monitor and reduce the length of these trajectories, to promote a more standardised PhD experience, regarding PhD culture and academic expectations.

In the previous evaluation, concerns were raised about international PhD candidates feeling disconnected from the local PhD community. Since then, SHE has introduced a range of opportunities for all PhD candidates to participate in hybrid journal clubs, scientific meetings, and presentation sessions, including a conference, SHE Academy, organised by SHE. Interviewed candidates, including international candidates, reported feeling well connected within the PhD community. This is facilitated through hybrid meetings, including special interest group meetings. Additionally, candidates highlighted that attending the SHE Academy, which takes place every two years, has helped them build stronger connections. The Committee recommends continuing these efforts for hybrid meetings and in-person opportunities such as SHE Academy.

PhD candidates are supervised by at least two supervisors, one of which is a junior staff member who is expected to meet on a more regular basis with the PhD-candidate. Supervisors meet at the beginning of the trajectory, and the training and supervision plan outlines the roles of all involved parties at both SHE and the local institution. Internal PhD candidates are members of ICO. Both SHE management and PhD



candidates have expressed positive feedback about the coursework and networking opportunities ICO offers.

The Committee values the large PhD programme, which includes many external PhD candidates from around the world. However, the responsibilities of selecting, monitoring, supervising, and addressing the diverse research interests of these candidates appear to be quite demanding. Additionally, with both SHE and local supervisors involved, there are obligations to adapt to local requirements regarding research procedures, ethics, and other institutional guidelines.

Furthermore, it was explicitly stated in the interviews that the junior supervisor's area of expertise does not necessarily need to align with the PhD candidate's research topic, aiming to broaden research perspectives. The Committee feels that, given most junior staff members supervise four to five PhD candidates, this may impact the quality of supervision—particularly in terms of theoretical and scientific guidance. Additionally, this may also place too much burden on the workload of the junior staff members. While the interviewed early-career researchers did not express concerns about the pressure, the Committee remains concerned that the high supervision load may limit their ability to focus on their own academic development. Therefore, the Committee strongly recommends that SHE re-evaluate supervision policies and establish clearer limits on the number of PhD candidates early-career researchers can oversee (and that SHE can ultimately accept), ensuring alignment with research interests and supervisory capacity.

To support PhD progress tracking, SHE has implemented PhD TRACK, a digital monitoring system that records and follows candidates' development. Given the large number of PhD candidates and supervisors involved, the Committee finds this tool particularly valuable.

8.6 Open Science

SHE follows the principles of open science. The share of publications in open access journals has steadily increased and now accounts for approximately two-thirds of all published articles. Since 2016, SHE has adhered to the FAIR principles of data management, and at the start of each new project, a comprehensive data management plan is established.

To ensure long-term accessibility and security, all SHE research data is safely stored in the Dataverse data management system for a minimum of ten years. Additionally, PhD candidates participate in university courses covering open science, research integrity, and ethics, further reinforcing SHE's commitment to responsible and transparent research practices.

8.7 Academic Culture

The self-evaluation report outlines the system in place for monitoring and fostering the academic culture that defines SHE. The unit is highly research-oriented, with both management and staff sharing a common understanding of contemporary research. There is a strong emphasis on maintaining an open and safe environment that can accommodate the inherent uncertainties of conducting research.

Additionally, SHE is international and diverse in multiple respects. Various initiatives and workshops have been introduced to promote inclusiveness and to provide support for staff and PhD candidates, SHE has actively integrated diversity into its teaching and research by framing healthcare education (and healthcare itself) as a fundamentally contextual field—one that must be responsive to the needs of diverse groups and cultural traditions. Efforts have also been made to "decolonise" curricula and critically examine the hidden or implicit cultural norms that may shape both teaching and research.



8.8 Human Resources Policy

SHE operates in a matrix structure, with all staff appointed at their respective departments. Research is what unifies the activities at SHE, and it is a part-time occupation for most of the staff. SHE has implemented the Recognition and Rewards policy in alignment with national initiatives and Maastricht University rules.

To further support career development, SHE has introduced a Faculty development programme for early career SHE academics, which includes mentoring for newly appointed staff. Additionally, there are courses designed to help junior staff prepare applications for external funding.

The Committee appreciates the efforts made to support PhD candidates and junior scholars in planning their careers. However, there remains a need for stronger mentorship regarding career pathways, improved access to career supporting activities that support these pathways, and greater clarity on the implications of the Recognition and Rewards system, particularly for early-career researchers.

8.9 Conclusions and recommendations

8.9.1 Conclusion

SHE is a stable research unit with a clear focus in its research and scholarly activities. The collaborations with the stakeholders in health professions education, nationally and internationally, are extensive and productive. Over the evaluation period, SHE has reorganised itself, and the current organisational structure with the three main activities, education, research and collaboration, is effective and well-founded. The research output is strong, and the commitment to open science is evident in its progress over recent years. The PhD programme is extensive and involves a large number of external PhD candidates. The programme also generates collaborative activities, which build the academic capital of SHE at the local, regional, national and international levels. The Committee regards SHE as a dynamic and sustainable organisation.

8.9.2 Recommendations

To improve the quality and relevance even further, the committee would like to make the following recommendations:

- While SHE is a dynamic and internationally recognised unit, the Committee encourages further strategic development of new research areas, particularly in further integrating innovative technologies (VR, AR, XR, AI, and simulations) into healthcare education.
- Analyse the strategic choice behind the large number of external PhD candidates and re-evaluate and define clearer guidelines on the number of PhD candidates that early-career researchers can supervise, ensuring alignment with research interests and capacity.
- Enhance mentorship regarding career choices and the implications of the Recognition and Reward system, especially for early-career staff.



Tables Maastricht University

Table 1 Research staff in # and FTE – School of Health Professions Education, Maastricht University

	2018		2019		2020		2021		2022		2023	
	#	fte	#	fte	#	fte	#	fte	#	fte	#	fte
Scientific Staff ¹												
Assistant prof	12	3.2	11	3.3	15	4.2	14	3.3	18	3.6	18	4.5
Associate prof	8	2	11	1.7	7	2.6	7	2.6	8	3.2	6	2.8
Full prof	15	3.6	17	3.9	18	3.6	17	3.5	15	3.4	19	2.6
Postdocs ²	6	3.1	9	4.1	7	2.4	8	4.4	10	3.9	6	2.0
PhD cand. excl. external	14	12.8	14	13.6	11	9.4	11	9.8	12	9.9	17	14.7
PhD candidates	64		67		80		91		97		106	
Collaborates staff	8	5.5	8	5.6	8	5.7	9	6.5	9	6.9	9	6.9
Total scientific staff³	63	30.2	70	33.2	66	27.9	66	30	72	30.7	75	33.4
Support staff	17	9.1	12	5.2	8	3.7	14	6.0	14	6.2	13	6.3
Visiting fellows	7		8		9		11		-		-	
Total staff	80	39.3	82	38.4	74	31.6	80	36.0	86	36.9		39.7

Number of persons active on the research unit research activities on Dec 31st

fte: Sum of fulltime equivalents (fte) labelled on the research unit research activities on Dec 31st

Note 1: Comparable with WOPI categories HGL, UHD and UD; tenured and non-tenured staff.

Note 2: Comparable with WOPI category Onderzoeker/Researcher.

Note 3: Excluding external PHD.

Table 2 Funding – School of Health Professions Education, Maastricht University

Funding in fte/%	2018		2019		2020		2021		2022		2023	
	fte	%	fte	%	fte	%	fte	%	fte	%	fte	%
Direct research funding ¹	15.3	51	17.9	54	14.4	52	11.3	38	12	39	15.2	45
Research grants ²	5.7	19	6.7	20	5.1	18	7.1	24	6.1	20	8.6	16
Contract research ³	4.7	15	3.7	11	2.8	10	4.2	14	6.4	21	4.0	12
Other ⁴	4.5	15	4,9	15	5.6	20	7.4	24	6.3	20	5.6	17
Total research funding	30.2		33.2		27.9		30.0		30.8		33.4	
<i>Expenditure in €</i>												
Personnel costs	3,363.3/61%		2,745.7/68%		2,691.4/66%		2,690.6/65%		2,975.9/69%		2,882.3/73	
Material costs	2,153.6/39%		1,298.9/32%		1,372.4/34%		1,431.8/35%		1,352.2/31%		1,042.2/27	
Total expenditure	5,516.9		4,044.6		4,063.8		4,122.4		4,328.1		3,924.5	

Note 1: Direct funding (basisfinanciering / lump-sum budget).

Note 2: Research grants obtained in national scientific competition.

Note 3: Research contracts for specific research projects obtained from external organisations.

Note 4: Funds that do not fit into the other categories.



Table 3a PhD completion – excluding external PhDs, School of Health Professions Education, Maastricht University

Enrolment				Success rates					
Starting year				≤ 4 yr	≤ 5 yr	≤6 yr	≤7 yr	Not yet finished	Discontinued
M	F	M+F		#	#	#	#	#	#
2015	1	7	8	0	3	3	0	1	1
2016	1	2	3	0	0	2	1	0	0
2017	1	5	6	0	5	1	0	0	0
2018	0	1	1	0	0	0	0	1	0
2019	1	0	1	0	0	0	0	1	0
Total	4	15	19	0	8	6	1	3	1

Table 3b PhD completion – all PHD candidate School of Health Professions Education, Maastricht University

Enrolment				Success rates					
Starting year				≤ 4 yr	≤ 5 yr	≤6 yr	≤7 yr	Not yet finished	Discontinued
M	F	M+F		#	#	#	#	#	#
2015	10	13	23	3	7	4	2	2	5
2016	10	11	21	2	2	5	6	2	4
2017	6	16	22	1	8	1	1	8	3
2018	7	9	16	3	0	3	0	10	0
2019	7	11	18	0	1	0	0	14	3
Total	40	60	100	9	18	13	9	36	15

