School of Health Professions Education (SHE), Maastricht University

Report of the Midterm Review 2021

1. Introduction

The main objective of a midterm review is to evaluate the follow-up of the recommendations of the last external review and to formulate future actions. Accordingly, the review committee was asked to qualitatively assess SHE's activities in the reference period 2018-2020 and to offer recommendations.

1.1. The Committee

Drs. Gerbrich Galema, University of Groningen, The Netherlands (PhD candidate member)

Prof. dr. dr. h.c. Detlev Leutner, University of Duisburg-Essen, Germany (chair)

Prof. dr. Patricia O'Sullivan, University of California at San Francisco, USA

Prof. dr. Meredith Young, McGill University, Canada

1.2. Procedures Followed by the Committee

The committee proceeded according to the Strategy Evaluation Protocol (SEP) 2021-2027. Prior to the online visit, the committee received and reviewed the SHE Mid-Term Evaluation Report, including various appendices. The online visit took place on October 6 and 7, 2021 (see Appendix A). The committee discussed its findings at its final session during the site visit. The members of the committee collaboratively drafted this report. The draft version was then presented to the Director of SHE to be distributed to his team.

2. Organization, Targets, and Strategy

SHE was founded in 2005; in 2014 SHE received the status of a graduate school in the Faculty of Health, Medicine, and Life Sciences of Maastricht University. In 2018, SHE developed a research program called *Task-centered Learning Environments in the Health Professions*, including approaches to evaluation, instruction, assessment, and implementation as the four interrelated themes. SHE's mission was to realize the vision of a world in which all healthcare professionals are well educated and contribute to the delivery of high quality care. This was to be done by (a) doing high quality multidisciplinary research on how to best educate health professionals, by (b) teaching health professionals how to conduct such research and how to make proper use of the findings, and by (c) applying the findings of this research in valorization activities.

In the previous research review 2012-2017, the strong leadership of the scientific director and the research director of SHE was addressed. With respect to the upcoming retirement of the two directors, a new SHE director was appointed in 2020, and the organizational structure of the management team was modified (including representatives of each of SHE's core activities *SHE Collaborates, SHE Research, and SHE Educates* in the management team, and the dissolution of SHE Bytes*)*. In January 2021, SHE's mission was updated emphasizing that SHE is the hub in a broad and global network of healthcare practitioners, researchers, educationalists, and policy developers who

share a passion for the development of Health Professionals Education (HPE). An update of the current 2018-2023 research program is planned for the near future.

In Fall 2021, SHE represents a research school that is in transition, with a new management team and a new director, a modified organizational structure, an updated mission, and a new focus on increasing the synergy between SHE's three core activities. These recent changes appear to be meaningful, the director is well supported, the management team appears to be functioning well as a collaborative unit, but the effects of these recent changes on research quality, societal relevance, and viability cannot yet be evaluated in the present midterm review.

3. Evaluation

3.1 Research Quality

In *research*, SHE has continued to be extremely successful, both in qualitative and quantitative terms. It has a very strong international reputation, representing a top center of health professions education and related research. Compelling indicators include a high share of peer-reviewed publications in high-impact journals as well as a large number of awards, keynote invitations, and organized conferences. SHE's research is highly recognized in the scientific community as indicated by CNCI (Category Normalized Citation Impact) analyses of nearly 1000 papers published before 2019. Most influential topics are medical education, problem-based learning, and self-regulated learning. Besides, SHE's research performs well when considering non-traditional metrics of impact, such as Altmetrics scores. Given the importance of open science and synergistic relationships across core activities, the committee suggests thinking broadly about means and mechanisms to capture research successes that exemplify, or highlight, the synergistic successes of SHE. More broadly, the committee encourages thoughtful alignment between the stated priorities of SHE (e.g., synergy) and the means used to capture success.

SHE has a specific focus on *open science*, as indicated by a very high percentage of open access publications in the reference period. Information on preregistration of research studies, however, is not yet provided in SHE's midterm-evaluation report, and is likely to evolve as HPE moves to adopt these practices.

Research integrity is addressed in two ways at SHE: The topic is appropriately considered in conducting research, including formal structures and educational opportunities for members of SHE, and the topic is also an object of study at SHE.

3.2. Societal Relevance

Concerning *societal relevance*, SHE continues to be very successful. SHE's research results, the master and PhD programs have a strong impact on the quality of health professions education, and, thus, on healthcare – not only nationally but worldwide. One specific example of the national impact of SHE's research is, among others, a project on palliative care education involving all medical schools and expertise centers for palliative care within the Netherlands. Worldwide impact of SHE's research is represented through a large number of consultancy and development projects, especially in the Global South.

In order to employ an extended process of continuous quality improvement in this field, the committee suggests that SHE considers adopting an evaluation plan that includes process and outcome measures, such as network analysis, that align with, and reflect, SHE's synergistic approach.

3.3 Viability

Concerning *viability*, SHE has experienced a slight decline in total staff in the past three years due to financial restrictions. According to the mid-term evaluation report, however, a positive financial balance is expected in 2022. A new management team is in place, and has taken, among others, proactive steps for human resource planning. Reasonable plans are in place for replacing the former directors, who will retire in the near future (the absence of such plans was addressed in the previous review), including the identification of strategic priority areas for new staff members. Accordingly, opportunities of hiring new staff seem to be used adequately by SHE. Thus, the committee is convinced that SHE will sustain.

3.4 PhD Policy and Training

The *PhD training* has two branches: Internal PhD candidates in the regular PhD program are housed at SHE and are paid by external funding or by SHE itself. External PhD candidates in the international PhD program are not employed by Maastricht University but registered at the university. They pay tuition fees, and they work on PhD projects typically developed in a PhD Research Proposal Writing Course. They usually collect data in the context of their own institution.

The PhD training is effective and well organized. In the previous review, it was noted that "international PhD candidates do not feel part of the local PhD community". As a response to this challenge, SHE has made reasonable use of online communication opportunities to include non-local PhD candidates in SIGs (special interest groups), SHE Journal Clubs, and the SHE Academy. Furthermore, international PhD supervisors are more tied in with respect to SHE events. The continuation and expansion of these community-building and -supporting initiatives should be encouraged.

During the site visit, PhD students appreciated SHE's efforts to better include their international peers. In general, they reported to be happy with their supervisors and to be satisfied with their overall workload (which was confirmed by an alumni survey as well). They suggested, however, that the time delay between approval of the PhD thesis and the defense should be reduced so that all degree requirements can be completed within the regular expected time period of four years. This was especially important for international PhD candidates because their VISA are typically restricted to four years only or to the time-course of the degree, which does not appear to capture the submission-to-defense time period. Furthermore, PhD candidates suggested free courses, e.g., on research methods, and having a space to build on peer support for coping with specific challenges. They require administrative support to establish and maintain initiatives that enable rich peer support.

SHE is on a strong path to better integrate their international PhD candidates, but there seems to be a need to do better. For example, SHE might consider investing more specific administrative support in extending the community- and cohort-building activities for all PhD candidates, with particular attention to activities including their international PhD candidates.

3.5. Human Resources and Academic Culture

Concerning *human resources* in terms of diversity, the previous review noted that the gender distribution of SHE staff is reasonable, that the great diversity of part time PhD candidates (i.e.

international PhD candidates) with regard to country of origin, however, is not fully reflected in staff and full time PhD candidates. With regard to gender, the distribution is still reasonably balanced. With regard to country of origin, however, the situation has not changed very much since the last review period.

Concerning talent policy and career development, SHE has implemented reasonable measures, including courses preparing talented PhD candidates to apply for external funding and SHE Grants meetings for academic staff. However, there may be value in considering a more formal mentorship program amongst (early career) staff members, with particular consideration of the challenges of balancing multiple responsibilities.

With respect to their workload, staff members reported during the site visit to be pleased with the fact that they have 20% protected research time (which is less than the protected research time at other universities as mentioned in the previous review). Both staff members and the management reasonably argued that this lower percentage is reasonable and allows SHE to hire more researchers. However, it should be noted that for full time research-focused staff (i.e. in contrast to those who also hold clinical roles), 20% may be insufficient as protected research time. In order to maintain SHE's position as a world class research institution, and to continue to produce a large amount of high quality and meaningful research, the committee encourages the maintenance of 20% protected time as a bare minimum, and to consider finding mechanisms by which to further protect research time, particularly for more junior scholars.

Concerning *academic culture*, staff members reported, during the site visit, a great deal of trust and respect and an "open door" atmosphere which allowed them to receive all kinds of support. Among others, the director meets with staff regularly. The perception of support was also shared by the PhD candidates.

4. Recommendations

Based on the mid-term evaluation report, discussions during the site visit, and debriefing amongst members of the committee, the committee proposes the following summarizing recommendations:

1. Adjust metrics of success, such as publication metrics, to specifically align with the scholars' and research teams' goals (e.g., publication in regional journals). To sustain SHE's reputation, publications must have high impact; we suggest considering SHE's strategic priorities and goals when documenting research successes.
2. Adopt process and outcome evaluation approaches and measures (e.g., network analysis), in order to align with, and highlight, SHE's synergistic approach (complementing SHE's process of continuous quality improvement).
3. Establish a mentorship program for academic staff across the career spectrum including career guidance, preparation for promotion, and opportunities for sponsorship; with particular focus on the challenges of maintaining protected time and achieving individual goals.
4. Support the PhD candidates to develop peer-led networks and activities for both internal and external PhD students to continue to foster strong community within and across the PhD programs.
5. Consider how to continue, when pandemic restrictions will be overcome, with blended, online, and inclusive education and communication opportunities in order to support participation of the large SHE community both in the Netherlands and internationally.

Appendix A: Program of the Site Visit

Day 1: October 6, 2021 – 16.00-19.15h CET

16.00-17.00	Closed meeting of the review committee, discuss self-assessment report, study available documentation, and prepare questions for meetings.
17.00-17.45	Discussion with SHE Leadership
17.45-18.00	Break
18.00-18.30	Discussion with SHE Research Staff
18.30-19.00	Break & closed evaluation meeting of the review committee
19.00-19.15	Possibility to discuss final issues and remaining questions with Scientific Director/Vice-Director

Day 2: October 7, 2021 – 16.00-19.00h

16.00-16.25	Closed meeting of the review committee in preparation of Day 2.
16.25-16.45	Presentations SHE Synergy
16.45-17.15	Discussion with PhD candidates/Postdocs/Alumni
17.15-17.30	Break
17.30-17.45	Discussion of final issues and remaining questions with SHE Leadership
17.45-18.45	Closed meeting of the review committee for the preparation of first oral impression by review committee
18.45-19.00	Public presentation of first impressions (Zoom Webinar)
19.00	Closing

Appendix B: Tables

Table 1: Research Staff

School of Health Professions Education	2018		2019		2020	
	# / fte	F/M	# / fte	F/M	# / fte	F/M
Scientific staff FHML[1]	35 / 8,80	15/20	38 / 9,90	19/19	39 / 10,40	21/18
Scientific staff academic hospital	0 / 0	-	0 / 0	-	0 / 0	-
Postdocs[2]	6 / 3,10	5/1	9 / 4,10	7/2	7 / 2,40	5/2
Internal PhD-students[3]	14 / 12,80	11/3	14 / 13,60	11/3	11 / 9,40	8/3
Collaborates staff	8 / 5,5	5/3	8 / 5,60	6/2	8 / 5,65	6/2
Total research staff[4]	**63 / 30,20**	**36/27**	**69 / 33,20**	**43/26**	**65 / 27,85**	**40/25**
Support staff (research)[5]	8 / 5,97	3/5	4 / 2,40	3/1	1 / 1,00	1/0
Support staff (managerial)[6]	9 / 3,10	5/4	8 / 2,77	5/3	7 / 2,74	4/3
Total support staff	17 / 9,07	8/9	12 / 5,17	8/4	8 / 3,74	5/3
Total staff incl academic hospital	**80 / 39,27**	**44/36**	**81 / 38,37**	**51/30**	**73 / 31,59**	**45/28**
Total staff excl academic hospital	**80 / 39,27**	**44/36**	**81 / 38,37**	**51/30**	**73 / 31,59**	**45/28**
External PhD candidates[7]	64		67		80	
Honorary professor[8]	0		0		1	
Visiting fellows/professors[9]	7		8		9	

Table 2: Funding

School of Health Professions Education	2018 fte / %	2019 fte / %	2020 fte / %
Funding:			
Direct funding[1]	15,35 / 50,8	17,9 / 53,9	14,35 / 51,5
Research grants[2]	5,7 / 18,9	6,65 / 20,1	5,10 / 18,3
Contract research[3]	4,70 / 15,6	4,88 / 14,7	4,71 / 16,9
Other[4]	4,45 / 14,7	3,76 / 11,3	3,69 / 13,3
Total funding	**30,20 / 100**	**33,19 / 100**	**27,85 / 100**
Expenditure:			
Personnel costs	k€3.363,3	k€2.745,7	k€2.691,4
Other costs	k€2.153,6	k€1.298,9	k€1.372,4
Total expenditure	**k€5.516,9**	**k€4,044,6**	**k€4.063,8**

Note 1: Direct funding by FHML/ Maastricht University ('basis financiering' / lump sum budget).
Note 2: Research grants obtained in national scientific competition (e.g. grants from NWO, ZonMw and KNAW)
Note 3: Research contracts for specific research projects obtained from external organisations, such as industry, governmental ministries, European organisations, including ERC, and charitable organisations
Note 4: Funds that do not fit into the other categories.
Note 5: The funding in fte includes the total research staff but excludes the academic hospital-staff

Table 3: Duration and Success Rates of Standard PhD Candidates

Enrolment Starting year	(male / female) M	F	Total	Success rates (#/%) Graduated in year 4 or earlier	Graduated in year 5	Graduated in year 6	Graduated in year 7 or later	Total graduated	Not yet finished	Disconti-nued
2010	0	1	1	0/0%	0/0%	1/100%	0/0%	1/100%	0/0%	0/0%
2011	1	2	3	0/0%	1/33%	2/67%	0/0%	3/100%	0/0%	0/0%
2012	0	1	1	0/0%	1/100%	0/0%	0/0%	1/100%	0/0%	0/0%
2013	0	2	2	0/0%	1/50%	0/0%	1/50%	2/100%	0/0%	0/0%
2014	0	1	1	0/0%	0/0%	0/0%	1/100%	1/100%	0/0%	0/0%
2015	1	7	8	0/0%	3/38%	3/38%	0/0%	6/75%	1/12,5%	1/12,5%
2016	1	2	3	0/0%	0/0%	0/0%	0/0%	0/0%	3/100%	0/0%
Total	**3**	**16**	**19**	**0/0%**	**6/32%**	**6/32%**	**2/11%**	**14/74%**	**4/21%**	**1/5%**

[a]*Standard PhD-candidate with employee status and conducting research with primary aim/obligation to graduate; (AiO, promovendus)*

Table 4: Duration and Success Rates of All PhD Candidates

Enrolment			Success rates						
Starting year	(male / female)	Total	Graduated in year 4 or earlier	Graduated in year 5	Graduated in year 6	Graduated in year 7 or later	Total graduated	Not yet finished	Disconti-nued
	M	F								
2010	2	2	4	1 /25%	0/0%	1/25%	1 /25%	3/75%	1 /25%	0 / 0%
2011	3	10	13	3 /23 %	3 / 23%	3 / 23%	2 /15%	11/85%	0 / 0%	2 / 15%
2012	5	5	10	3 /30%	2/20%	1 /10%	2/ 20%	8 /80%	1 /10%	1 /10%
2013	9	11	20	2 /10%	4 /20%	3 /15%	2/10%	11/55%	2 /10 %	6 /30%
2014	8	5	13	2 /15%	3 /23%	1 / 8%	2 /15%	8 /61%	4 /31%	1 /8%
2015	10	13	23	3 /13%	7 /30%	3 /13%	0/0%	13/56%	5 /22%	5 /22%
2016	10	11	21	2/10 %	2 /10 %	0/0%	0/0%	4 /19%	13/62%	4 /19%
Total	**47**	**57**	**104**	**16/15%**	**21/20%**	**12/12%**	**9/9%**	**58/56%**	**27/26%**	**19/18%**

[b]Including PhD candidates from SHE's international PhD programme who usually work part time on their PhD.