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‘Good Practice’ Report (PR5-3b)

DOCUMENT PREPARED BY DUBLIN PARTNER SITE,
TRINITY COLLEGE DUBLIN

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List of HEAL Project Partner Sites

- UM - Universiteit Maastricht, Netherlands
- HELMO - Haute Ecole Libre Mosane, Belgium
- SDU - Syddansk Universitet, Denmark
- OUH - Odense Universitets Hospital, Denmark
- TCD - Trinity College Dublin, Ireland
- IGTP - Institut De Investigacio En Ciencies De La Salut Germans Trias I Pujol, Barcelona, Spain

Contents

Chapter 1: Glossary

For this document, we define the following concepts:

- **Clinical internship:** describes a period of supervised practical training in a healthcare setting where healthcare students can apply theoretical knowledge in a real-world setting under the supervision of clinical experts.
- **Clinical learning co-ordinator(s) (CLC):** a healthcare professional who works within a healthcare setting to facilitate and coordinate clinical learning experiences for students mindful of the students' learning outcomes and scope of practice. CLC tasks are specific to the needs of the healthcare setting but could include managing clinical internships, monitoring the student progress, evaluating student learning and effectiveness of learning environment.
- **Clinical training:** is described in the DIRECTIVE 2005/36/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as "trainee nurses learn, as part of a team and in direct contact with a healthy or sick individual and/or community, to organise, dispense and evaluate the required comprehensive nursing care, on the basis of the knowledge and skills which they have acquired. The trainee nurse shall learn not only how to work in a team, but also how to lead a team and organise overall nursing care, including health education for individuals and small groups, within the health institute or in the community.
- **Location of clinical training:** is described in the DIRECTIVE 2005/36/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as "This training shall take place in hospitals and other health institutions and in the community, under the responsibility of nursing teachers, in cooperation with and assisted by other qualified nurses. Other qualified personnel may also take part in the teaching process.
- **Draft recommendations**: Preliminary suggestions or proposals that are subject to further evaluation, potential revision or refinement, before or if, they can be adopted by the project group.
- **Learning activity** describes any task or exercise designed to help students acquire new knowledge, skills, or understanding. In this work, the topics identified as learning activities were selected by each site and are also referred to as 'innovations' in the project document.

Please note:

Due to differences in education, roles, and responsibilities across HEAL project partners, a comparable definition of 'Nurse' and 'Doctor' is not possible.

'Good Practice' is not defined in the HEAL project document. In this work, the term is similar to best practice and describes recommendations as being the best to use for a specified task i.e. developing clinical internships and are based on evidence generated during the individual site studies.

Chapter 2: Introduction

This 'Good Practice' Report (PR5-3b) was developed to comply with the Development of Implementation and Policy Recommendations (PR5) of the HEAL Erasmus Project. The content in this report collates the findings from the PR5-3a: Good Practice Framework (see next paragraph) and the two-day co-creation workshop in Odense, Denmark, June 2024 (**see Chapter 3**).

Good Practice Framework (PR5-3a): this framework was developed by the Trinity College Dublin site, shared with, and completed by each partner site (see **Appendix 4**). The aim of this framework was to capture the lessons learned from each site. These lessons include the benefits, challenges, limitations to generalizability, and implementation recommendations of their learning activity. The information captured in this framework (from all six partner sites) was then collated into the 'Good Practice' Report (PR5-3b). The aim of the 'Good Practice' Report (PR5-3b) is to collate and consolidate themes from the completed 'good practice' frameworks. The themes will draw on the lessons learned (at each individual site) and will focus on how to transfer examples of good practices beyond this project. However, as all sites explored and researched different learning activities, comparability between the findings (from each site) presents challenges.

This 'Good Practice' Report (PR5-3b) also includes the outcomes from the two-day co-creation workshop in Odense, Denmark, June 2024. See **Chapter 3** for additional details of this co-creation workshop.

The HEAL project is an educational development project and not a research project. Seeking ethical approval was not a standard of this project; however, individual partner sites could follow up with their own local ethics committee. This has implications for the dissemination of results. Following guidance from the HEAL project, it was established that it [the project] will use overall themes. The DRAFT 'Good Practice' Recommendations follow themes identified in work conducted for the HEAL Project. This is further explored in this document.

2.1 Overview of work done to date

The HEAL project comprised of a number of work packages. The following sections presents an overview of project workflow. The information contained in these sections was discussed during day two of the workshop (held during the Partner meeting in Odense, Denmark, June 2024). The purpose of mapping the project workflow is to provide research context.

2.1.1 Needs analysis (PR1) and Scoping review (PR2)

As a starting point, each HEAL Partner (n=6) conducted a Needs Analysis (PR1). The framework for the Needs Analysis was supplied by one of the partner sites (IGTP) based on the work.

by Edward de Bono – Six Thinking Hats). From this work, each site identified a learning activity from the literature (also referred to as an innovation in the project document) (PR1). Each site identified relevant literature (for their activity). This literature was amalgamated into the scoping review (PR2). See figure 1.

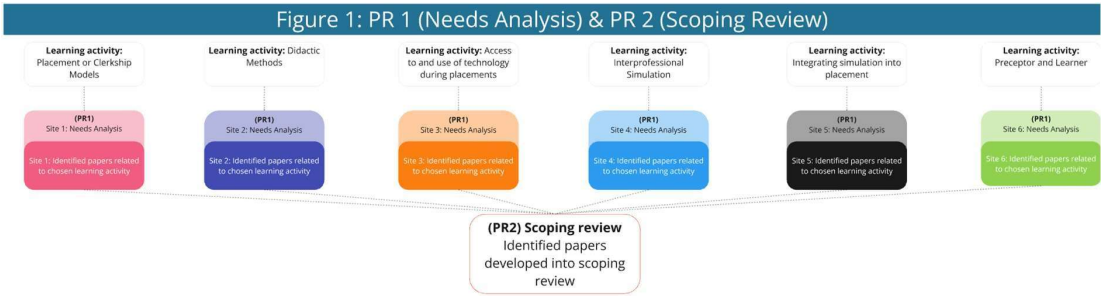

FIGURE 1: Six individual sites produced six individual needs analyses and papers that could contribute to the scoping review.

2.1.2 Individual site project

Following the scoping review, each site would conduct a project (at their site) exploring their learning activity (also referred to as an innovation in the project documents) and how it could be used to develop high-quality teaching of future medical doctors and nurses during their clinical internships. Each project had a pilot phase, testing phase 1 and testing phase 2. See Tables 1-3 below for an overview of the learning activity explored at each site, population involved, and individual study aim and Figure 2.

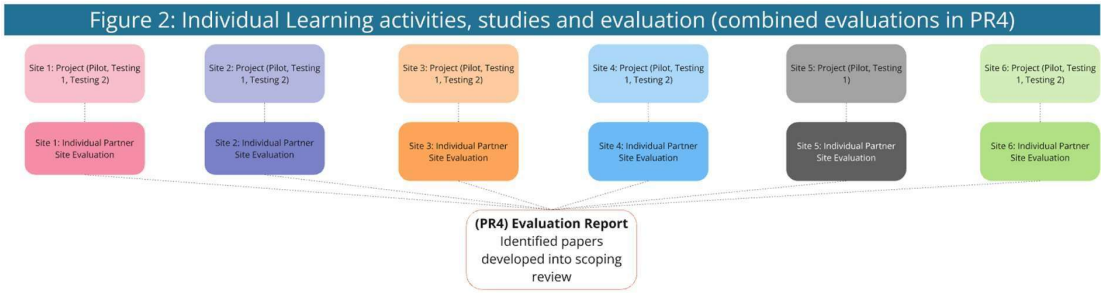

FIGURE 2: Six individual sites completed six individual projects that explored the learning activity identified.

TABLE 1: OVERVIEW OF LEARNING ACTIVITIES AT EACH SITE

Individual project topics (Learning activities)	**Site**	**Population group**	**Project type/evaluation**
Placement or Clerkship Models	UM	4th and 5th year medical students	Standardized surveys and group interviews.
Didactic Methods	SDU	4th and 5th year Medical Students 3rd year Nursing students	Interprofessional learning conferences/Digital

		2nd year Nursing assistant students	evaluation and qualitative group evaluation
Integrating students' learning styles in reflections and learning goals, co-creating plans with teachers	OUH	1st, 2nd and 3rd year Nursing students	Surveys, interviews, and assessments based on reflective practices
Interprofessional simulation	TCD	3rd Year Nursing and Medical Students	Clinical scenario and digital evaluation survey
Integrating simulation into placement	IGTP	2nd Year Nursing and 4th Year Medical Students	Clinical scenario and debriefing participation/evaluation
Reflexive learning	HELMO	2nd and 3rd, Year Nursing Students	For students and hospital partners: Online Survey – Qualtrics For teachers: focus groups

TABLE 2: OVERVIEW OF STUDY AIMS (FROM INDIVIDUAL PARTNER SITE STUDIES)

Project partner site	Study aim
TCD	The aim of the HEAL project in TCD was to use simulation in an inter-professional clinical placement setting to enhance the learning experience of 3rd Year nursing and medical students while on placement.
IGTP	Offer a quality and guaranteed simulation to: -Reduce the number of hours of student presence in the hospital and the teaching load of its professionals. -Start collaboration among health students -Early initiation of professional contact and decision-making.
UM	To develop and implement a placement model that enhances learning by diversifying clinical experiences, balancing student workload, and expanding educational settings beyond the hospital.
HELMO	The aim of the project was to develop reflexive learning during general care internship among 2nd and 3rd year students.
SDU	The aim of the activity was to explore reflective practice and collaboration between different healthcare professions in the practical settings of complex healthcare processes during a hospital stay.
OUH	To innovate learning methods in response to changing healthcare frameworks and ensure quality education. Furthermore, a goal has been that the nursing students can work more independently towards achieving the learning goals and thereby be less dependent on their clinical teacher.

TABLE 3: OVERVIEW OF PROJECTS AND PARTICIPANTS AT EACH SITE

Project partner site	Number/type of participants		
	Pilot	***Testing phase 1***	***Testing phase 2***
TCD	*57 nursing students, 23 medical students*	*71 nursing students, 13 medical students*	*68 nursing students, 16 medical students*
IGTP	*2 nursing students, 3 medical students*	*53 medical students, 7 nursing students**	-
UM	-	130 students from December 2023 to July 2024 (HPS elective -	Over 300 students participated from October 2023 to July 2024 (Study

		4th year medical students)	days - 4th and 5th year medical students)
HELMO	6 nursing students	52 nursing students	74 nursing students
SDU	6 medical students, 3 nursing students	6 medical students, 3 nursing students, 2 nursing assistant students	6 medical students, 2 nursing students, 2 nursing assistant students
OUH	5 nursing students	17 nursing students	11 nursing students

2.1.3 'Good Practice' Findings Report (Individual Partner Site Evaluation- n=6) (PR5)

The 'Good Practice' Findings Report (Individual Partner Site Evaluation) presents the findings from each project. These findings were presented verbally during the co-creation meeting in Odense, Denmark, June 2024.

UM collated Individual Partner Site Evaluations in a single Evaluation Report (PR4).

Following the six individual studies, each site presented its findings as 'Good Practices' with respect to the learning activity (innovation) deployed at its site. The project did not propose a definition of 'good practices'; it was left to each site to interpret based on information generated during their Needs Analysis and the scoping review. Apart from evaluating the innovation at each site, no further evaluations were conducted. See Figure 3.1 for an overview of tasks undertaken in PR5.

Figure 3: PR5 - Overview of tasks undertaken

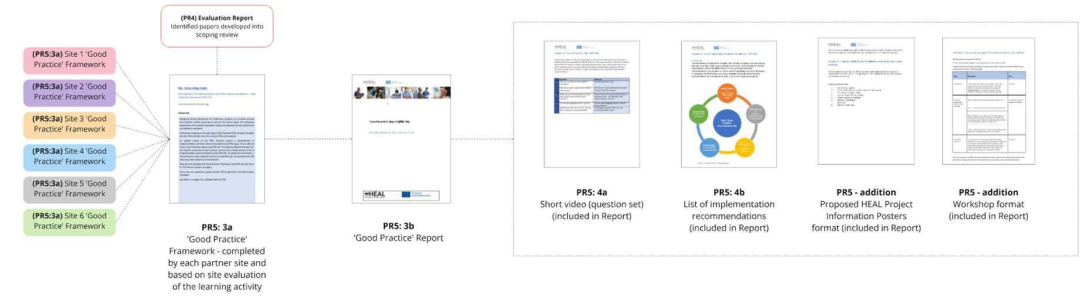

FIGURE 3.1: Overview of PR5 tasks undertaken (illustration includes PR4 Evaluation Report).

2.1.4 Method Cards

In addition to 'Good Practices', each site project produced several Method Cards (see Figure 3.2). Each card, developed as a Word document, presented an overview of the learning activities conducted by each partner during the individual site projects. These learning activities include established frameworks and approaches already utilised in healthcare education, such as reflective practice, digital interventions, and simulation. For example, the International Nursing Association for Clinical Simulation and Learning (INACSL) developed a Simulation-Enhanced Interprofessional Education Criteria. This criterion was reproduced in the Inter-professional Healthcare Simulation method card (TCD). The original author is referenced on each method card to ensure the appropriate credit is given.

Each method card presents an overview of the learning activity conducted at each site. Evaluation is limited to the application of the learning activity at a single partner site and not the utility of the Method Card as a standalone artefact. Each card will be translated into the language of all the participating partners. The topic of each card and the content reference are shown in Table 4.

FIGURE 3.2: Examples of method cards

TABLE 4: OVERVIEW OF METHODS CARDS PRODUCED AT EACH SITE

Site	Method Card(s) produced	Reference
TCD	Pre-briefing	Drake, G., & Drewek, K. (2024). "I Hate Sim!"-Using Psychotherapeutic Concepts to Help Educators Attend to Challenging States of Mind During Simulation Prebriefs. Simulation in healthcare: Journal of the Society for Simulation in Healthcare, 10.1097/SIH.0000000000000781. Advance online publication. https://doi.org/10.1097/SIH.0000000000000781
	Debriefing	Lippincott Nursing Education. (2018, May 1). The 411 on debriefing in clinical simulation: How nursing simulations & debriefing create better nurses. Wolters Kluwer. http://nursingeducation.lww.com/blog.entry.html/2018/04/30/debriefing_clinical-22AD.html
	Inter-professional healthcare simulation	The International Nursing Association for Clinical Simulation and Learning (INACSL) developed a Simulation-Enhanced Interprofessional Education Criteria Kelly Rossler, Margory A. Molloy, Amy M. Pastva, Michelle Brown, Neena Xavier, Healthcare Simulation Standards of Best PracticeTM Simulation-Enhanced Interprofessional Education, Clinical Simulation in Nursing, Volume 58, 2021, Pages 49-53, ISSN 1876-1399, https://doi.org/10.1016/j.ecns.2021.08.015. Infographic accessed from: https://www.inacsl.org/simfographics
IGTP	Gamification	Sanz-Martos S, Álvarez-García C, Álvarez-Nieto C, López-Medina IM, López-Franco MD, Fernandez-Martinez ME, Ortega-Donaire L. Effectiveness of gamification in nursing degree education. PeerJ. 2024 Apr 15;12:e17167. doi: 10.7717/peerj.17167. PMID: 38638160; PMCID: PMC11025539. Rosa-Castillo A, García-Pañella O, Maestre-Gonzalez E, Pulpón-Segura A, Roselló-Novella A, Solà-Pola M. Gamification on Instagram: Nursing students' degree of satisfaction with and perception of learning in an educational game. Nurse Educ Today. 2022 Nov;118:105533. doi: 10.1016/j.nedt.2022.105533. Epub 2022 Sep 5. PMID: 36088779. Anna A, Wang CJ, Lai WS, Chen HM. Developing and validating cardiovascular emergency gamification question cards. Nurse Educ Today. 2022 Oct;117:105482. doi: 10.1016/j.nedt.2022.105482. Epub 2022 Jul 28. PMID: 35926340.

	Simulation Execution	Britz V, Sterz J, Koch Y, Schreckenbach T, Stefanescu MC, Zinßer U, Verboket RD, Sommer K, Ruesseler M. Impact of simulated patient-based communication training vs. real patient-based communication training on empathetic behaviour in undergraduate students - a prospective evaluation study. BMC Med Educ. 2024 Aug 12;24(1):870. doi: 10.1186/s12909-024-05801-8. PMID: 39134984; PMCID: PMC11318334. Glosser LD, Lombardi CV, Hopper WA, Chen Y, Young AN, Oberneder E, Veria S, Talbot BA, Bodi SM, Matus CD. Impact of educational instruction on medical student performance in simulation patient. Int J Med Educ. 2022 Jun 23;13:158-170. doi: 10.5116/ijme.62a5.96bf. PMID: 35752175; PMCID: PMC9911140.
	Flipped Classroom	Sattler AL, Merrell SB, Lin SY, Schillinger E. Actual and Standardized Patient Evaluations of Medical Students' Skills. Fam Med. 2017 Jul;49(7):548-552. PMID: 28724153.
UM	Flexible scheduling in clinical rotations	Barrett, Anna, R. Woodward-Kron, and L. Cheshire. "Flexibility in primary medical programs: A scoping review." *Focus on Health Professional Education: A Multi-Professional Journal* 23.4 (2022): 16-34. Caldwell, Katharine E., et al. "Implementation of Flexible Days Off Improves Surgical Resident Attendance of Personal Health Appointments, Perceived Wellbeing, and Sense of Control." *Journal of Surgical Education* 81.11 (2024): 1522-1528.
	Back to School	Spencer, Abby L., et al. "Back to the basic sciences: an innovative approach to teaching senior medical students how best to integrate basic science and clinical medicine." *Academic Medicine* 83.7 (2008): 662-669. Hashmi, Satwat, et al. "Integrating basic sciences into clerkship rotation utilizing Kern's six-step model of instructional design: lessons learned." *BMC Medical Education* 24.1 (2024): 68.
HELMO	Reflective writing	Lafortune, L. (2012). Une démarche réflexive pour la formation en santé. Un accompagnement socioconstructiviste. Québec : Presses de l'Université du Québec.
	Reflective learning	Lafortune, L. (2012). Une démarche réflexive pour la formation en santé. Un accompagnement socioconstructiviste. Québec : Presses de l'Université du Québec.
	Virtual reality	Jensen, L., & Konradsen, F. (2018). A review of the use of virtual reality head-mounted displays in education and training. Education and Information Technologies, 23(4), 1515 1529. https://doi.org/10.1007/s10639-017-9676-0.
	Collaboration and delegation of care	Ghonem, N. M. E. S., & El-Husany, W. A. (2023). SBAR shift report training program and its effect on nurses' knowledge and practice and their perception of shift handoff communication. SAGE Open Nursing, 9, 23779608231159340.
	Simulation of gerontological patients	www.caresimulation.uliege.be/cms/c_3593962/fr/smile-le-concept www.ec.europa.eu/eip/ageing/home_fr
	Simulation with hight fidelity mannequin	Ung, N. (2023). Simulation en santé : État des lieux et mise en place pratique. Le Praticien en Anesthésie Réanimation, 27(6), 351358. https://doi.org/10.1016/j.pratan.2023.10.007
SDU	Interpersonal Peer Reflection	Steen Høyrup, Bente Elkjaer, 2005: Reflection: Taking it beyond the individual Imprint Routledge, eBook ISBN 9780203001745 Laura Van Beveren Griet Roets, Ann Buysse, Kris Rutten, 2018: We all reflect, but why? A systematic review of the purposes of reflection in higher education in social and behavioral sciences. Elsevier vol. 24
	Reflective Supervision	Gisela Hildegard van Rensburg, Pat Mayers, Lizeth Roets, 2016: SUPERVISION OF POST-GRADUATE STUDENTS IN HIGHER EDUCATION, in Trends in nursing vol.3 Evangelia Fragouli, 2021: Postgraduate supervision: A practical reflection on how to support students' engagement. In International Journal of Higher Education Management (IJHEM), vol. 7

	Cooperative Learning	B. Breed, 2016: Exploring a co-operative learning approach to improve self-directed learning in higher education in Journal for new generation sciences vol.20
OUH	Asynchronous learning	Northey, G., Bucic, T., Chylinski, M., & Govind, R. (2015). Increasing Student Engagement Using Asynchronous Learning. *Journal of Marketing Education*, *37(3), 171-180.* https://doi-org.proxy1-bib.sdu.dk/10.1177/0273475315589814
	Corporative learning	Slavin, R. E. (1980). Cooperative learning. Center for Social Organization of Schools, Johns Hopkins University. https://d1wqtxts1xzle7.cloudfront.net/33048365/cooperative_learning-libre.pdf
	Evaluation	Stuflebeam, D. (2001), Evaluation Models. New Directions for Evaluation, 2001: 7-98. https://doi-org.proxy1-bib.sdu.dk/10.1002/ev.3
	Gibbs' reflective cycle	Wilding, P. M. (2008). Reflective practice: A learning tool for student nurses. British Journal of Nursing, Vol 17. No 11 Reflective practice: a learning tool for student nurses.: EBSCOhost
	Identifying activities based on learning goals	Larsen, D. P., Wesevich, A., Lichtenfeld, J., Artino, A. R., Jr., Brydges, R., & Varpio, L. (2017). Tying knots: An activity theory analysis of student learning goals in clinical education. *Medical Education, 51*(7), 687–698. https://doi.org/10.1111/medu.13295
	Implementation	Durlak, J.A., DuPre, E.P. Implementation Matters: A Review of Research on the Influence of Implementation on Program Outcomes and the Factors Affecting Implementation. Am J Community Psychol 41, 327–350 (2008). https://doi-org.proxy1-bib.sdu.dk/10.1007/s10464-008-9165-0
	Learning style test	Cockerton, T. (2002). Factorial validity and internal reliability of Honey and Mumford's Learning Styles Questionnaire. Psychological Reports, 91(2), 503–519. https://doi.org/10.2466/pr0.2002.91.2.503
	Problem-based learning	Allen, D. E. (2011). Problem-based learning. New Directions for Teaching and Learning, 2011(128), 21–29. https://doi.org/10.1002/tl.465
	Project-based learning	Scarbrough, H., Bresnen, M., Edelman, L. F., Laurent, S., Newell, S., & Swan, J. (2004). The Processes of Project-based Learning: An Exploratory Study. Management Learning, 35(4), 491-506. https://doi-org.proxy1-bib.sdu.dk/10.1177/1350507604048275
	Reflective writing	Ryan, M. (2011). Improving reflective writing in higher education: a social semiotic perspective. Teaching in Higher Education, 16(1), 99–111. https://doi-org.proxy1-bib.sdu.dk/10.1080/13562517.2010.507311
	Critical thinking & learning	Fatmawati, A., & others. (2019). Critical thinking, creative thinking, and learning achievement: How they are related. Journal of Physics: Conference Series, 1417, 012070. https://doi.org/10.1088/1742-6596/1417/1/012070

2.1.5 Innovative Framework (PR3)

To address the aim of the HEAL project *("… develop, test and propose an innovative framework for high-quality internship...")* these method cards were collated into an Innovative Framework (IF). This was done through discussion with partner sites at project meetings. The purpose of the innovative framework is show*"… the direction for how traditional internships in hospitals can be combined with other innovative learning and* teaching methods, that uses e.g., blended learning, peer learning, group work, simulation, online teaching, video training, covert mentoring etc"… Designed as a general process framework, it is not aimed at any specific healthcare education groups. The project does not provide guidance on how to apply or use the framework. The PR3 – Innovative Framework (IF) for high-quality learning and teaching - was coordinated by OUH and is not further discussed in this Report. For additional information on the innovative framework, please contact Project Coordinators.

2.1.5 Evaluation

Each site evaluated how they applied the learning activity they identified (see Needs Analysis and Scoping review section 2.1.1). Each site produced their own set of method cards. These cards were developed into the Innovated Framework (see Method Cards section 2.1.4 and Table 4). Evaluation of the developed Innovative Framework did not occur during the lifespan of the HEAL project work.

Through partnership collaboration, a two-day workshop was used to co-create "*a set of national policy and implementation recommendations for each participating country. This will be developed giving recommendations on how to include the innovation framework as an official part of national health education programs*." This two-day workshop occurred in Odense, Denmark in June 2024 during the HEAL Partner meeting. It was envisioned that recommendations on including the Innovative Framework would be based on outcomes from the evaluation of the developed Innovative Framework. The developed Innovative Framework was not evaluated during the project's lifetime. Therefore, 'Good Practices' themes and examples identified from individual site projects are presented in this report in place of recommendations.

The Final Implementation and Evaluation Report (PR4), prepared by Maastricht University, provides a more detailed report on evaluation, including student feedback.

2.1.6 Reports produced

See Reports produced by each site in the following table.

TABLE 5: REPORTS PRODUCED

Report name	Purpose
Needs assessment (**PR1**)	See section 2.1.1 above.
Scoping Review (**PR2**)	See section 2.1.1 above.
Individual Partner Site Evaluation Report	Each site (n=6) was to produce a report showing the evaluation of the learning activity studied at their site. See section 2.1.3 for additional information.
'Good Practice' Video	Each site was to produce a video recording of site members discussing their learning activity and its impact on their site. Where possible, the video could include the student's voice. However, this could be limited by a lack of ethical approval at each site. This video accompanies the 'Good Practice' Findings Report (Evaluation); see previous text. A question set that could be used to form a script is provided at the end of this document; see Chapter 6.
Evaluation Report (**PR4**)	*Final Implementation and Evaluation Report (PR4),* prepared by Maastricht University.
Policy and Implementation (**PR5**) – 'Good Practice' Report	To achieve the outcomes of PR5 a number of related documents were developed. There are:

	PR5-3a: 'Good Practice' framework. Each site to be sent a 'Good Practice' framework to complete detailing the lessons learned from evaluating a learning activity. These lessons include the benefits, challenges, limitations to generalisability, and implementation recommendations of their learning activity. **PR5-3b:** Themes collated from the completed 'good practice' framework feedback (see text above), will be presented in a Report, referred to as the 'Good Practice' Report, for the EU Reference Group. The themes will draw on the lessons learned (at each individual site) and will focus on how to transfer examples of good practices beyond this project. **PR5-4a:** To develop a question set for a 2-minuite video that can be shared with each site on the topic of good practice. **PR5-4b:** List of implementation recommendations based on the themes around the implementation of learning activities from the 'Good Practice' Report' (and individual returned 'Good Practice' framework PR5-3a).

2.2 Workflow

The HEAL Project adopted an Action Research approach. In total 5 stages are described in the HEAL Project application (page 44). The five stages are outlined below and shown in figure 4:

1. **Setting the Scene:** To establish a close internal partnership in each university hospital.
2. **Development**: Based on the needs assessment and the scoping review, this phase will be the development phase, where the partnership will develop a concrete and innovative framework for high quality learning in internships.
3. **Testing**: After having developed the prototype of the innovative framework (from the Development stage) is to be tested in this stage. Each participating university hospital will run a testing period.
4. **Evaluation**: To run concurrently with the testing stage.
5. **Conceptualisation**: Innovate framework developed in stage 2 will be fine-tuned, adapted and finalized based on the input from the evaluation phase. In addition, the policy and implementation recommendations, good practice cases, testimonials from staff and students will be developed.

Figure 4: HEAL Project Workflow Overview

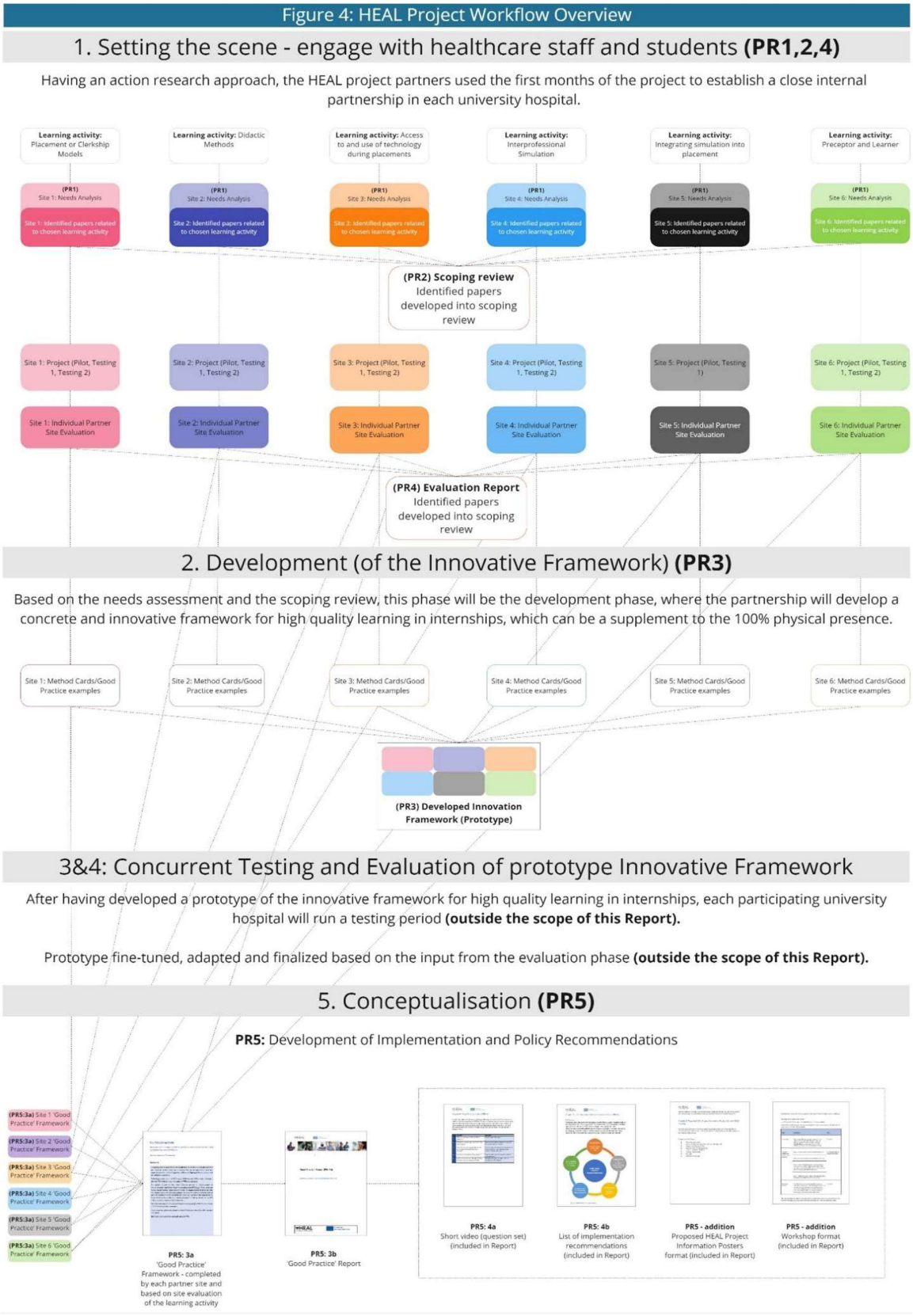

FIGURE 4: HEAL project workflow overview.

Chapter 3: Themes identified during creation workshop Odense, Denmark, June 2024

A workshop was arranged by TCD partner site, as part of the Partnership meeting that was held in Odense, Denmark (June 2024).

3.1 Attending this meeting was:

- Universiteit Maastricht (UM, Netherlands – Emmaline Brouwer and Julia van den Brink
- Haute Ecole Libre Mosane (HELMO), Belgium- Fabrice Zanini, Anne-Sophie Polet and Régine Merlo
- Syddansk Universitet, Denmark (SDU) – Vibeke Damlund and Thomas Christophersen
- Odense Universitets Hospital, Denmark (OUH) – Daniella Sohn Petersen (Lene day two only)
- Trinity College Dublin (TCD), Ireland – Cathy Roets and Sinead Impey
- Institut De Investigacio En Ciencies De La Salut Germans Trias I Pujol (IGTP), Barcelona, Spain. (Did not attend Day One, did attend online for the second day, but there were technical issues with the live stream).

3.2 Format of co-creation workshop

- **Preparation work:** To prepare for this two-day workshop, available literature and HEAL documents were reviewed and themes and sub-themes are identified in Figure 5. There were then used to guide a co-creation discussion at two-day workshop that was held during a partner meeting in Odense, Denmark, June 2024. Details of this meeting are as follows:
- **Meeting Day One:** Through group discussion, a task identified was to develop a set of draft recommendations using themes and sub-themes from work done to date to guide the discussion. The discussion was captured on a specially designed 'Sub-group data collection sheet' (see Appendix 3)**.** Individual members of the HEAL Project were assigned to smaller groups for the discussion. Each smaller groups reported back to the wider group for discussion.
- **Meeting Day Two:** Following a group discussion on day two, as the Innovative Framework was not evaluated beyond the initial project studies (method cards were identified from this work), producing recommendations was challenging. In addition, challenges of the project were highlighted during Day One discussions. As a result, the meeting on Day Two was initially planned to evaluate identified draft recommendations (from Day One) and obtain group agreement on the evaluated set of Draft Recommendations. Instead, of reviewing draft recommendations, the Project Group members in attendance discussed and agreed to present Project findings or 'Good Practices' as a list and to state the challenges that impact their generalisability.

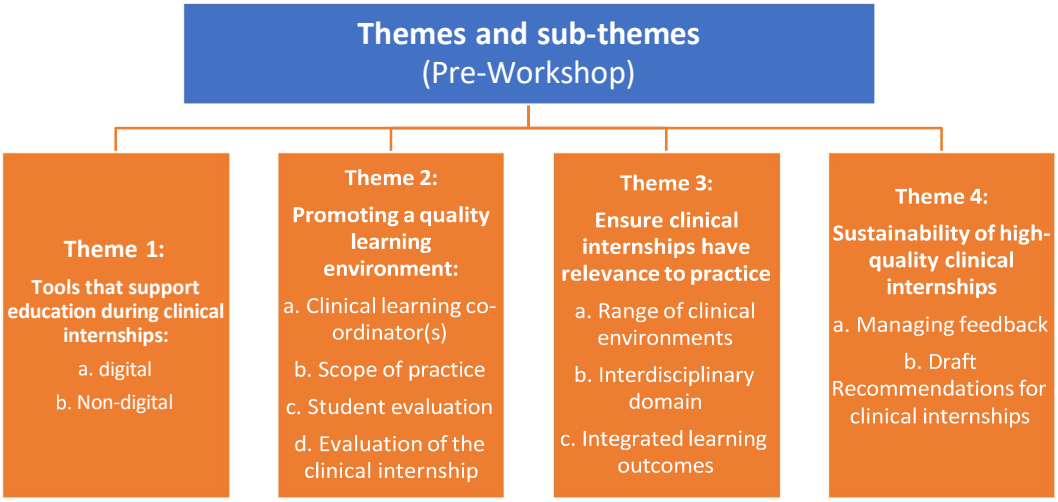

FIGURE 5: Themes and sub-themes identified from a thematic analysis of HEAL project documents. Please note, as each site focused on a different learning activity and with a different sample population, not all themes/sub-themes may be relevant to all sites but are taken from the total body of work produced by the HEAL project partner sites.

3.3 Findings from workshop (June 2024)

To validate and review the themes and sub-themes the following steps were undertaken during the co-creation workshop that occurred in Odense, Denmark, June 2024.

1. Presentation of themes and sub-themes by TCD partner site. This ensured all project members understood each and had an opportunity to discuss or amend.
2. Following this presentation, project members were spit into groups for a more detailed discussion on each theme. This discussion was based on their experiences during the individual site project and notes were captured on the 'Sub-group data collection sheet'.
3. Each individual group presented their discussions back to the wider group.
4. A wider group discussion took place. This discussion used the themes, sub-themes as a guide and explored the findings from each individual study conducted at each site.
5. Findings from Day One (updated list of themes/sub-themes) discussion and agreed with group on Day Two of workshop.
6. Discussed that these recommendations should be mindful of the identified challenges.
7. Notes were taken by the TCD partner site.

The text on the following pages presents the findings from the workshop in June 2024 related to the themes and sub-themes. From this workshop, a fifth theme was identified – Learners as educators. Where relevant individual partner sites are mentioned.

3.4 Theme 1: Tools that support education during clinical internships.

A range of digital and non-digital tools were evaluated positively by students and clinical educators. Digital tools include clinical simulation, that can support the curriculum and student learning needs during clinical internships (see report by **TCD** and **IGTP** partner site). Conversely, non-digital tools were also discussed as beneficial for students (see report by **SDU** and **OUH** partner site). Non-digital tools discussed included reflective practice. These can be applied during and around the clinical placement. From the co-creation discussion, it was noted that strong pedagogical methodology needs to be evaluated for the digital tool. Digital tools can become a barrier if not accessible to all learners. Furthermore, as learners will have a range of styles, not all types of tools will suit all learners.

Overview: *Digital and non-digital tools can bring a range of benefits, but there are also limitations. Institutions should consider that digital but also non-digital tools may require additional training to use and maintain for both the educator and learner. Any tool incorporated should be accessible to all learners.*

3.5 Theme 2: Promoting a quality learning environment.

This theme relates to how it is important to ensure skills developed during internships are high-quality and relevant (see report by **HELMO** partner site). Feedback from the co-creation meeting noted that providing a clinical and educational expert on site could provide students with standardised learning, fosters clinical judgment (in the student), and can act as a conduit for reflection. In this work, this expert was referred to as a clinical learning co-ordinator but may have other names throughout clinical site. From studies conducted for the HEAL project (see report from **HELMO** partner site), the benefit of this role included that it could promote continuous skill development during internship by providing access to onsite clinical learning co-ordinators.

In addition, the theme encompasses managing the individual's scope of practice. Specifically, the importance of ensuring learners maintain their scope of practice (for their current level) but also grow within their scope during their clinical internships. Co-creation group feedback highlighted that a change could come in the form of self-directed development of critical thinking skills but also access to a clinical coordinator (see report from **HELMO** partner site). In addition, learners enjoyed taking control of their own learning needs (for part of their internships) and personalising their own clinical experience. To promote a quality learning environment, evaluation of both the healthcare institution and the learner outcomes is required. Monitoring user feedback allows changes to be made to support both the learner and the institute.

Overview: *A quality learning environment takes account of many considerations, these include onsite experts in the form of clinical learning coordinators, managing the individual's scope of practice while allowing learners where possible to take a role in managing their own clinical learning and ongoing evaluation.*

3.6 Theme 3: Ensure clinical internships have relevance to practice.

Internships should be relevant for the learners, educational institutions, and healthcare organisations. To ensure relevance, a range of clinical environments both the physical location and the type of shared care i.e., multi-disciplinary teams, were identified from the work done in the HEAL project. This theme encompasses three sub-themes: range of clinical environments, Interdisciplinary domain and Integrated learning outcomes.

From the co-creation meeting it was discussed that qualified healthcare staff will practice across a range of clinical environments, including the acute and community setting along with specialist areas, such as theatre, emergency department, and that, where possible, this range should be incorporated into clinical internships (see report by **UM** partner site). A second sub- theme found in the review was the interdisciplinary nature of healthcare work. This sub- theme highlights how individual disciplines may train separately but will work as part of a multi-disciplinary team in the clinical environment. Therefore, internships should support learning to work as part of the multi-disciplinary team. This was discussed by **SDU** partner site. The final sub-theme (Integrated learning outcomes) describes how there should be clear and linked learning outcomes between academia and healthcare providers so that the internship is relevant. This should also match the required competencies of the learner, and their profession (see report by **OUH** partner site).

A finding from this work was the impact of the local context. In addition, there are a range of stakeholders from individual learners and patients to national and international groups. As each stakeholder or group will have their own needs (learning or impact), the potential impact on these groups, should be considered when any intervention is being developed or deployed. A group mentioned during the co-creation discussion was the needs of the labour market what impact this stakeholder could potentially have on clinical internships. It was discussed during the co-creation meeting that Clinical educators should be cognisant of any potential implications for change management for the learners, the institution and national and internationally.

Overview: A range of best practices related to the learning environment were identified in this work. These included the range of potential intern sites, the interdisciplinary nature of healthcare work and how this should be replicated in any training and how learning outcomes should be clear and reflect, not just the academic setting but also healthcare provider, professional bodies, and the individual learner. However, this all happens in a context and impacts a range of stakeholders, and this should be acknowledged and supported so that internships are relevant to practice and can have implications for change management.

3.7 Theme 4: Sustainability of high-quality clinical internships.

To maintain quality and relevance in the long term, the fourth theme highlights the importance of identifying mechanisms to formulate lessons learned into future clinical internships and to maintain the relevance of the Innovative Framework. Thus, providing a means of sustaining the lessons beyond the project. From the co-creation discussion, it was noted that each site should consider an information pipeline that could manage feedback from evaluations (from students and institutions) into the HEAL project. How this feedback could be collected, collated and reviewed so that lessons learned can be integrated into future iterations of the internship, innovation framework and to a national level to ensure sustainability and potentially inspire and motivate other external stakeholders is beyond the scope of the current discussion.

Overview: Lessons learned from student and internship evaluations and the HEAL Project should be embedded in future iterations (of internships and innovative framework) to ensure learning captured and growth is sustainable.

3.8 Theme 5: Learners as educators.

A new theme emerged during the co-creation discussion (Workshop, Odense, Denmark, June 2024) that surrounded involving the learner in the design and development of their own education for clinical internship. It was discussed how this could potentially improve quality, motivation and engagement in internships (report from **UM** and **OUH** partner site). Another point noted, was that incorporating collaborative learning activities where learners share experiences and expertise acquired across various learning contexts allows for peer-to-peer teaching and learning.

Overview: *Students could be co-creators in their own learning and as means of diffusion of knowledge (peer-to-peer) to other learners.*

Following this group discussion (workshop, Odense, Denmark, June 2024) the themes and sub-themes figure is updated to include the new theme identified. See figure 6.

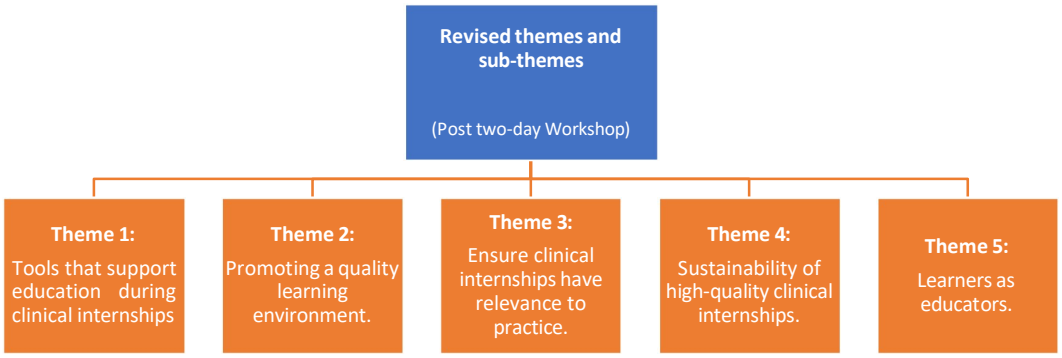

FIGURE 6: Updated and reviewed themes and sub-themes following the two-day workshop held during the partner meeting in Odense, Denmark (June 2024).

Chapter 3: PR5-3a 'Good Practice' Framework

Work package PR5 is concerned with the Development of Implementation and Policy Recommendations. To do these two sub-tasks were identified:
3a: National level: this will focus on how the individual learning activities can used as an additional tool or supplement to aid end users design clinical internships. TCD to develop a 'Good Practice' framework. Each site to be sent a 'Good Practice' framework to complete detailing the lessons learned. These lessons include the benefits, challenges, limitations to generalisability, and implementation recommendations of their learning activity.

3b: European level: Themes collated from the completed 'good practice' framework feedback (see National level), will be presented in a Report, referred to as the 'Good Practice' Report, for the EU Reference Group. The themes will draw on the lessons learned (at each individual site) and will focus on how to transfer examples of good practices beyond this project. This document is this Report.

The framework (PR5-3a) collected the good practice examples from the partner sites and present them in this section of this report (PR5-3b).

As with all studies there are limitations and challenges. The following are relevant to interpreting the findings in this report and discuss limitations on presenting the 'Good Practice' examples as a collective. These are presented as future research opportunities.

- Each project had a different aim, cohort and explored a different learning activity. This presented challenges for aggregating the six sets of findings into a single data set.
- There was a lack of glossary of terms, agreed key concepts or definitions, leading to the potential for terminology confusion. For example, different sites have different understanding of terms such as 'internship/placement' also 'nurse' can be different for different countries.
- It was unclear if participants had any additional learning needs or supports. Future studies should consider equality, diversity, and inclusion and include other groups such as migrant learners, or students with additional learning requirements and explore how these learning activities support different types of learners.
- Each site only had the opportunity to evaluate their own learning activity.

See the 'Good Practice' examples and limitations to their generalizability (site by site) in the tables below.

TABLE 6: 'GOOD PRACTICE' EXAMPLES - TCD

Good Practice Examples: TCD	
Learning activity	Inter-professional Healthcare Simulation
1	Technology and resources: Providing clinical simulation is technical complex and resource intensive, this needs to be considered during the planning stage.
2	Pre-briefing: In addition to providing supportive documentation and instruction, the prebrief should also establish clear learning outcomes, ground rules, psychological safety and introducing the students to the learning environment.
3	Simulation Activity Design: This activity should be rooted in problem-based learning, mirror clinical practice, and be designed to meet agreed learning outcomes of a clinical practice placement. Where possible, the activity should include care plans, policies, and

	protocols of that clinical practice placement. Scenarios should adapt an interprofessional approach as this mirrors the reality of the clinical practice placement.
4	Debrief: This offers students an opportunity to reflect on their performance, to identify what they did well and what skills require further development. Therefore, a knowledgeable facilitator is important.
5	Development team: The development team needs to be comprised of a range of educational, technical and clinical specialists.
Limitations to generalisability of the 'Good Practice' examples produced: TCD	
1	Resource intensive: Developing and maintaining clinical simulations can be expensive and time consuming and need appropriate resourcing.
2.	Simulation experts: The development team needs to be comprised of a range of educational, technical and clinical specialists. Not all these roles may be available at all clinical practice sites.
3.	Realism: Simulations may not fully capture the complexity and unpredictability of real-life clinical environments.

TABLE 7: 'GOOD PRACTICE' EXAMPLES - IGTP

Good Practice Examples: IGTP	
Learning activity	Integrating simulation into placement
1	Improves interpersonal relationships, improves communication, teamwork.
2	Improves patient safety, decisions are made in a controlled environment.
3	The transversal aspects are worked on with patients, presentation, communication, non-verbal communication, prevention of occupational risks.
4	Learning time is not limited and is subject to variables.
5	The action carried out is analysed and reflected on with the guidance of the teachers, to repeat it if necessary and improve it.
Limitations to generalisability of the 'Good Practice' examples produced: IGTP	
1	The main limitation: Simulation will never substitute reality. Coordination between department professors is complicated. Groups should be small, for a quality and personalized simulation. (This increases costs and time)

TABLE 8: 'GOOD PRACTICE' EXAMPLES - UM

Good Practice Examples: UM	
Learning activity	Placement or Clerkship Models
1	Integration of community placements: The HPS elective successfully incorporates community-based healthcare experiences, providing students with valuable insights into public health and preventative care..
2	Collaboration with Community Partners: Establishing strong partnerships with local organizations and supervisors improved the quality of placements and ensured relevant learning experiences for students.
3	Collaborative curriculum development: Engaging stakeholders, including faculty, students, and community partners, in the curriculum development process fostered a sense of ownership and ensured that the educational objectives aligned with real-world healthcare needs. This collaboration led to a more relevant and impactful learning experience for students.

4	Ongoing faculty support: Providing faculty with clear guidelines and resources for supervising students in non-traditional settings was crucial for maintaining academic standards and ensuring student success.
5	Structured study days: Implementing dedicated study days within hospital rotations allowed students to manage their workload more effectively, enhancing their learning experience.
Limitations to generalisability of the 'Good Practice' examples produced: UM	
While the identified good practices are effective within the context of Maastricht University, their generalizability may be limited by several factors specific to our institution. Some contextual factors that facilitated the implementation of the intervention, which may not apply elsewhere, include:	
1	Strong institutional support: Maastricht University has a commitment to innovation in medical education, which was evident in the administrative backing for the HPS elective and study days. This level of institutional support may not be as readily available in other universities with less emphasis on curriculum reform.
2	Established relationships with community partners: Prior collaborations with local organisations and healthcare providers facilitated the integration of community placements into the curriculum. The existing trust and cooperation between the university and these partners played a critical role in the success of the HPS elective, which may not exist in other regions.
3	Flexibility in curriculum design: The medical program at Maastricht allows for flexibility in curriculum design, enabling the incorporation of innovative elements like the HPS elective and study days. Other institutions may have more rigid curricula that limit the ability to introduce such changes.
4	High student engagement: The students at Maastricht University demonstrated a strong desire for experiential learning and community involvement, which supported the successful uptake of the HPS elective. Variations in student demographics or preferences at other institutions may affect their receptiveness to similar programs.

TABLE 9: 'GOOD PRACTICE' EXAMPLES - HELMO

Good Practice Examples: HELMO	
Learning activity	Reflexive learning
1	Creation of the function: student referral nurse in each care units (NB: there is a continuous training of practitioner trainer in order to develop the necessary skills in this role --> encourage and promote this training to the teams)
2	Communicate the aims of each supervision to students and unit heads
3	Ensuring confidentiality on feedback on learning writings: reflexivity on student learning can bring out personal problems
4	Ensuring an evaluation of the student's internship encompassing the teacher's point of view and the point of view of the care unit
5	Ensuring that the internship objectives formulated by the student are in line with the learning opportunities offered in the care unit
Limitations to generalisability of the 'Good Practice' examples produced: HELMO	
1	The political and institutional hospital context in Belgium: lack of nursing staff, change in legislation defining nursing and its practitioners,
2	The difficulty of acceptance by the care units of the new approach to student supervision: teachers no longer supervise at the patient's bedside. (difficulty in changing the old way)

TABLE 10: 'GOOD PRACTICE' EXAMPLES - SDU

Good Practice Examples: SDU	
Learning activity	Didactic Methods
1	Development and Implementation: Developing interprofessional activities should include faculty from each type of healthcare profession at the planning and evaluation stage to ensure alignment with learning needs and goals, as well as buy-in by all groups.
2	Scheduling and flexibility: As different healthcare internships have different length and work scheduling traditions, it is vital to focus on robust scheduling to ensure good interprofessional participation.
3	Introduction: As interprofessional activities are almost non-existent in current practice, it is important to set the stage, at introduction to the clinical internship, in order to motivate active participation and collaborative learning.
4	Active Learning: It is important to prompt active participation by all participants and to start from participant experienced cases to ensure relevance to the daily practice.
5	The Patient´s Point-of-View: Patient-centred healthcare is at the core of all healthcare profession´s mission. It is helpful during interprofessional activities to facilitate reflections on the patient´s current state, perceived needs and concerns, to foster recognition and accommodation of these. This helps to build professional and compassionate practice.
Limitations to generalisability of the 'Good Practice' examples produced: SDU	
1	Planning and Scheduling: The planning process can be relatively complex and becomes more so with each added type of healthcare student.
2	Hierarchy: Even at the undergraduate level, preconceptions of hierarchy may be detrimental to the optimal participation and individual profit of interprofessional sessions.

TABLE 11: 'GOOD PRACTICE' EXAMPLES - OUH

Good Practice Examples: OUH	
Learning activity	Integrating students' learning styles in reflections and learning goals, co-creating plans with teachers
1	Structured reflection on learning goals. Through structured reflection on learning objectives, students are trained to enhance their understanding of specific learning goals and to break these down into more practical, achievable sub-goals aligned with the current clinical setting.
2	Tailoring supervision to individual learning styles. By identifying the student's learning style, clinical teaching can be more constructively organized. Through active use of the learning style assessment and its recommendations, clinical teaching can be tailored to the student's individual needs. This approach also helps students gain awareness of how they learn best and which specific methods they can effectively use to enhance their learning progression.
3	Co-creating learning plans with students. Responsibility and collaboration between students and clinical supervisors become more constructive and balanced through co-creation.
4	Reflective supervision using Gibbs' cycle. By using Gibbs' reflective cycle for reflective supervision, it creates the possibility for learning, development of professional competencies and personal growth.
5	Asynchronous learning tools. Asynchronous learning tools in clinical education provide flexibility and allow students to learn at their own pace, which is ideal in a busy clinical environment. Students can revisit and deepen their understanding of the material,

	strengthening knowledge acquisition. These tools also offer continuous feedback and easier access to expert knowledge, while in some situations fostering collaboration through online discussions and case studies. For educators, it means more time for individualized guidance and better resource utilization. Overall, asynchronous tools enhance learning efficiency and support the integration of technology in clinical practice.
Limitations to generalisability of the 'Good Practice' examples produced: OUH	
1	The "Good Practice" examples presented, while highly effective within our clinical setting, may face limitations in generalizability due to the specific context in which they were developed. Structured reflection on learning goals, for instance, requires a level of supervisory consistency and support that may vary across different institutions or departments. Additionally, tailoring supervision to individual learning styles is dependent on resources and supervisor training, which can differ widely. Co-creating learning plans demands a collaborative culture and time investment that might not be feasible in all clinical settings. Gibbs' reflective cycle, though beneficial for reflective supervision, relies on both student willingness and adequate time allocation for structured reflection, which may not be available everywhere. Finally, asynchronous learning tools require technological infrastructure and access that may be limited in some clinical environments. Therefore, while these practices demonstrate clear benefits, adapting them to varying settings may require adjustments to align with local resources, time constraints, and institutional culture.

Chapter 4: Implementation recommendations of the learning activity

Due to the known challenges (such as comparability of data and generalisability of findings), the Report presents implementation recommendations of the learning activity on a site-by- site basis rather than collated themes. This is shown in the tables below, along with any additional information from the site.

TABLE 12: IMPLEMENTATION RECOMMENDATIONS OF THE LEARNING ACTIVITY - TCD

1	Technology – to ensure all technology used could be integrated with university technology used for simulation. We recommend a technical expert be part of the team.
2	Simulation activities – these need to be repeated over the course of the clinical placement. So that no student is overlooked, we recommend that this should occur on a regular basis during the clinical placement timeframe, so all students are offered a place.
3	Scheduling - So that it is included in the schedule of facilitators and student clinical placements, it should form part of the university calendar.
4	Knowledge - Facilitators should have good knowledge of problem-based learning along with interprofessional clinical simulation experience.
Additional information from site	
1	Collaboration between all stakeholders is key. These included the medical school, School of nursing and midwifery, clinical placement systems which allocate students to clinical practice and the health service sites.

TABLE 13: IMPLEMENTATION RECOMMENDATIONS OF THE LEARNING ACTIVITY - IGTP

1	Get an actor as a patient who is not a student and a professor (outside the institution, unknown)
2	The place of the simulation must be the same as the real one in the hospital.
3	Create easy, daily and credible scenarios.
4	The teachers and the actor must know the activity and practice it previously.
Additional information from site	
1	We want to highlight the collaboration between nursing and medicine from teachers to students. Teamwork from the university to the working world.

TABLE 14: IMPLEMENTATION RECOMMENDATIONS OF THE LEARNING ACTIVITY - UM

Good Practice Examples: UM	
Recommendations for optimizing the implementation include:	
1	Enhanced orientation for supervisors: Providing comprehensive guidance and resources to workplace supervisors regarding assignment expectations, evaluation standards, and feedback protocols would facilitate smoother integration.
2	Structured schedules and communication channels: Developing clear schedules and channels for communicating study days could mitigate tracking concerns, ensuring both students and staff know where students are expected to be on a given day.
Limitations to generalisability of the 'Good Practice' examples produced: UM	
1	This initiative emphasized the importance of student-centered scheduling flexibility and broadened educational settings to support holistic healthcare education. Continued refinement of communication and support for off-site supervisors, along with structured coordination, will be vital to sustaining the model and expanding similar innovations

TABLE 15: IMPLEMENTATION RECOMMENDATIONS OF THE LEARNING ACTIVITY – HELMO

1	Collaboration with the school's schedulers to coordinate clinical placement and class schedules.
2	Ensuring access to a private room within the unit care to meet with the student, where confidentiality can be maintained.
3	Ensuring the nurse staff clearly understands the role of the school and the teacher: a clear definition of everyone's responsibilities in supporting the students.

TABLE 16: IMPLEMENTATION RECOMMENDATIONS OF THE LEARNING ACTIVITY - SDU

1	Approach to Learning: Collaboration, as a form of "give and take", must be high-lighted before sessions.
2	Broaden the Participation: When addressing complex work processes, ensure that the breadth of the participating professions reflect the professions involved in the actual process. This avoids a "knowledge gap" in the participant.
3	Knowledge: Facilitators should have a detailed knowledge of each type of student´s learning goals and professional approach to better frameset the learning points and accommodate different learning needs.
Additional information from site	
1	Mutual information and collaboration at the clinical site are essential to insure buy-in, scheduling, and participation. The complex work processes identified were "The admission of a patient", "Ward rounds" and "The discharge of a patient". "Ward rounds" proved particularly challenging, as this process was heavily influenced by different ward traditions, as well as by interprofessional variation. This may be challenging when students reflect, as the often attempt to discover the "One True Way" or "the gold standard" of a process.

TABLE 17: IMPLEMENTATION RECOMMENDATIONS OF THE LEARNING ACTIVITY - OUH

1	Digital Access: Providing online tools is essential. This would allow students to document progress dynamically, with clinical teachers tracking their work asynchronously. This approach supports flexible learning and enhances real-time feedback.
2	Structured, Clear Instructions: Offering detailed guidance for both students and teachers would help minimize confusion and streamline the implementation process.
3	Focus on Higher-Semester Students: To optimize outcomes, prioritize students beyond the first semester, as they are more familiar with clinical environments and likely to benefit more from structured reflection.
4	Regular Supervisor Training: Ongoing support and training for clinical teachers on how to effectively integrate and use the tools can help ensure consistency and engagement.
Additional information from site	
1	The students typically chose reflection methods they were already familiar and comfortable with, showing less inclination toward exploring new approaches, such as using video, audio, images, and other alternative formats. Additionally, the students generally needed a thorough introduction on how to break down learning objectives effectively. Despite the initial guidance provided, ongoing support and supervision were necessary to help them deconstruct these learning goals and translate them into a clinical context.

Chapter 5: List of implementation recommendations: (PR5-4b)

5.1 Overview

The themes shown in figure 7 below are drawn from the discussions from the co-creation workshop (Odense, Denmark, June 2024). These are presented as 'Good Practice' recommendations, and they capture lessons learned from HEAL Erasmus Project. We propose that these recommendations could be useful for any individual or organisation involved in developing or managing clinical internships or practice placements. It should be noted that these recommendations have not been evaluated as a set, so future studies are required.

FIGURE 7: 'Good Practice' recommendations.

5.2 'Good Practice' Recommendations – Overview

'Good Practice' Recommendation 1: Adopt a range of learning tools *Digital and non-digital tools can bring a range of benefits, but there are also limitations. Institutions should consider that digital but also non-digital tools may require additional training to use and maintain for both the educator and learner. Any tool incorporated should be accessible to all learners.*

'Good Practice' Recommendation 2: Provide a quality learning environment *A quality learning environment takes account of many considerations, these include onsite experts in the form of clinical learning coordinators, managing the individual's scope of practice while allowing learners where possible to take a role in managing their own clinical learning and ongoing evaluation.*

'Good Practice' Recommendation 3: Adopt best practices *A range of best practices related to the learning environment were identified in this work. These included the range of potential intern sites, the interdisciplinary nature of healthcare work and how this should be replicated in any training and how learning outcomes should be clear and reflect, not just the academic setting but also healthcare provider, professional bodies, and the individual learner. However, this all happens in a context and impacts a range of stakeholders, and this should be acknowledged and supported so that internships are relevant to practice and can have implications for change management.*

'Good Practice' Recommendation 4: Incorporate lessons learned *Lessons learned from student and internship evaluations and the HEAL Project should be embedded in future iterations (of internships and innovative framework) to ensure learning captured and growth is sustainable.*

'Good Practice' Recommendation 5: Learners as co-creators *Students could be co-creators in their own learning and as means of diffusion of knowledge (peer-to-peer) to other learners.*

Chapter 6: 'Good Practice' Video (PR5-4a)

As part of the outputs for PR5 was a short video on the topic of 'Good Practices' from each site in relation to their learning activity. For PR5:4a, TCD were to develop a question set that can be shared with each site to include in a video on the topic of good practice. Each video should contain of at least 5 examples on the lessons learned during the project (Good Practice examples). The video should be no longer than 2 minutes in length. See question set and rational (for each question) below for PR5:4a.

	Question	**Rationale**
1	Who you are (name of site and title of presenter)?	*Provide context for viewer*
2	Why did you want to get involved with the HEAL project?	*Describe perceived benefits and to promote European multi-site research*
3	What was your learning activity and why did you pick it (what problem did it address)?	*Provide context for viewer and description of learning activity – also highlights what problem is being addressed*
4	The aim and population of your project?	*Provide context and also linked to problem being addressed.*
5	Briefly discuss five 'Good Practice' finding (from testing your learning activity)?	*To highlight benefits for other sites not connected to HEAL Project.*

Chapter 7: Proposed example of workshop (January 2025 meeting)

TCD agreed to submit a proposed structure for a workshop in January 2025. The aim of this work is to help disseminate lessons learned, specifically how users could apply the method cards in a healthcare education setting. The following table is the proposed structure of the workshop.

- Workshop format prepared by TCD site. This work is additional to agreed PR5 tasks.
- For 30th January 2025 meeting – each workshop is for 20 minutes in total.
- Proposed format of workshop including timing and information required to meet the HEAL Project requirements is shown in following table.
- HEAL Project Team to apply workshop format to suit the needs of attendees.

Topic	Description	Time
Introduction	Introduction to the topic and resulting method cards. Include aim/instructions for attendees – what will attendees get/learn/understand after taking part. **Workshop topics:** teaching and learning activities, reflection, simulation, and interdisciplinary learning.	3 minutes
Four step - engagement section of the workshop	Step 1 – Introduce the site and the topic/method cards	12 minutes in total for engagement section
	Step 2 – Discussion method cards developed at each site	
	Step 3 – Discuss how method cards could be applied in participants work setting (participants to engage in this part, discuss and/or write in the reflection document that is to be developed), facilitator to take notes.	
	Step 4 – Measuring success – how to make clinical practice placements sustainable beyond the HEAL project.	
Concluding remarks	From the previous discussions during the workshop, facilitator to review points raised and prepare a take home message from their workshop. This message must be agreed with participants at their workshop. Discussion should include what method cards were suitable by participants to integrate into their work settings.	5 minutes

After the workshop, facilitator (at each workshop) to report back to wider HEAL group what was the take home message discussed at their workshop and record this in the 'reflection document'.

Chapter 8: Proposed example HEAL Project Information Posters (January 2025 meeting)

TCD were asked to propose an outline for poster describing innovations in clinical education or clinical practice from HEAL project. These posters will be on display at the January 2025 conference. See proposed outline below:

Proposed content of poser

1. Title of learning activity
2. Practice problem learning activity addressed (background)
3. Description of learning activity
4. Implementation of learning activity
5. Output 1: participant feedback
6. Output 2: method cards
7. Conclusion
8. References /HEAL Logo

Chapter 9: Where to find HEAL documents.

All HEAL project documents can accessed from www.healproject.rsyd.dk

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Appendix 1: Thematic Analysis

The method by Braun and Clark (2006) was used for the analysis. The steps taken are shown in Table 1.

Table 1: Steps involved in identifying themes/sub-themes.

Step (by Braun and Clarke, 2006)	How applied in this research
1. Familiarizing yourself with your data	Review (reading, re-reading and note taking) of project documents and available literature, referred to as data corpus (SI). Discussions of initial findings and project history with project members (CR, FN)
2. Generating initial codes	Initial set of codes generated during review of documents. Including identifying key concepts (for codes).
3. Searching for themes	Using the initial set of codes, review data corpus to identify potential themes/sub-themes.
4. Reviewing themes	Review potential themes/sub-themes identified. Some themes/sub-themes merged, or new ones identified.
5. Defining and naming themes	Ongoing analysis and discussions with CR, FN to ensure identified themes/sub-themes are relevant and accurate. Descriptions for themes/sub-themes generated.
6. Producing the report	Themes presented as a graphic to be discussed and agreed at workshop as part of Day One tasks. A final report on Draft Recommendations to be prepared following the workshop.

In addition to available literature, a range of documents were used in this thematic analysis.

- HEAL Document: European Needs Analysis. Needs analysis of health sciences students during their clinical internships in European hospitals.
- HEAL Document: Innovative methods in clinical hospital placements or clerkships for nursing and medical students – a scoping review.
- European Commission (2020) MAPPING AND ASSESSMENT OF DEVELOPMENTS FOR ONE OF THE SECTORAL PROFESSIONS UNDER DIRECTIVE 2005/36/EC – NURSE RESPONSIBLE FOR GENERAL CARE (No 711/PP/GRO/IMA/18/1131/11026) Executive summary (April, 2020).
- EUROPEAN UNION OF MEDICAL SPECIALISTS. CHARTER on TRAINING of MEDICAL SPECIALISTS in the EUROPEAN COMMUNITY Charter adopted by the Management Council of the UEMS, October 1993.
- Official Journal of the European Union. DIRECTIVE 2005/36/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 7 September 2005 on the recognition of professional qualification
- World Health Organisation (WHO, 2022), European Region. Health and care workforce in Europe: time to act. ISBN: 978-92-890-5833-9

The analysis was conducted by TCD. The themes/sub-themes identified are shown in Chapter 3, Figure 6 and described in Appendix 2.

Please note: In total 4 themes and 11 sub-themes were identified from this analysis (see Chapter 4 and Appendix 2). Not all themes/sub-themes may be relevant to all sites (as each applied a different learning activity, has a different educational system/healthcare setting or sample population). Following the partnership meeting in Odense, Denmark, June 2024, a further Theme was identified during this workshop (see Chapter 4, section 4.5). This theme was 'Theme 5: Learners as educators'.

Appendix 2: Initial set of themes and sub-themes

Initial set of themes/sub-themes identified.

Theme	Description	Sub-theme	Description
1. Tools that support education during clinical internships	This theme describes the range of learning tools or approaches available to support the curriculum and student learning needs during clinical internships. This encompasses two sub-themes: digital and non-digital.	a. Digital	This sub-theme highlights the range of digital tools i.e., clinical simulation, digital games, digital apps, video or virtual reality, that can support the curriculum and student learning needs during clinical internships.
		b. Non-digital	This sub-theme highlights the range of non-digital tools i.e., reflective practice, low-fidelity serious games that can support the curriculum and student learning needs during clinical internships.
2. Promoting a quality learning environment	This theme describes how it is important to ensure skills developed during internships are high-quality and mindful of the scope of practice of individual learners. To ensure clinical internships provide a high-quality learning environment student learning and the internship should be evaluated, and feedback managed. This encompasses four sub-themes: Clinical learning co-ordinator(s), Scope of practice, Student evaluation and Evaluation of the clinical internship.	a. Clinical learning co-ordinator(s)	This sub-theme highlights ways to promote continuous skill development during internship by providing access to onsite clinical learning co-ordinators who monitor and maintain a high standard of clinical skill development throughout the length of the clinical internship.
		b. Scope of practice	This sub-theme highlights the importance of ensuring learners stay maintain their scope of practice (for their current level) but also grow within their scope during their clinical internships.
		a. Student evaluation	This sub-theme highlights the importance of monitoring the learners progress throughout the internship.
		b. Evaluation of the clinical internship	This sub-theme highlights the importance of monitoring the quality of the internship to ensure it addresses future learner needs.
3. Ensure clinical internships have relevance to practice	This theme describes how internships should be relevant for the learners, educational institutions, and healthcare organisations. This includes the range of clinical environments, (physical locations and multi-disciplinary teams) and learning outcomes. This encompasses three sub-themes: Range of clinical environments, Interdisciplinary domain and Integrated learning outcomes.	a. Range of clinical environments	This sub-theme highlights how qualified healthcare staff will practice across a range of clinical environments, including the acute and community setting along with specialist areas, such as theatre, emergency department, and that, where possible, this range should be incorporated into clinical internships.
		b. Interdisciplinary domain	This sub-theme highlights how individual disciplines may train separately but will work as part of a multi-disciplinary team in the clinical environment. Therefore, internships should support learning to work as part of the multi-disciplinary team.
		c. Integrated learning outcomes	This sub-theme highlights that there should be clear and linked learning outcomes between academia and healthcare providers so that the internship is relevant.
4. Sustainability of high-quality clinical internships	This theme encompasses ways to ensure that lessons learned that result in improved quality are sustainable beyond this project. This encompasses two sub-themes: Managing feedback and Recommendations for clinical internships.	a. Managing feedback	This sub-theme highlights that there should be a mechanism for collecting, collating and reviewing feedback from student, organisation and educational institution evaluations
		b. Recommendations for clinical internships	This sub-theme highlights how lessons learned will be reviewed and developed into a set of Draft Recommendations for future internships. Evaluation of these Draft Recommendations is beyond the scope of this current project but is identified as an area for future work.

Appendix 3: Specially designed worksheet ('Sub-group data collection sheet')

This 'Sub-group data collection sheet' refers to the initial set of themes and sub-themes identified and was used to capture the feedback during the workshop held during the HEAL partner meeting in Odense, Denmark, June 2024. Attendees were free to write on the back of the page also, or request additional sheets.

Sub-group members *(names and countries)*	
Sub-group Chairperson *(to report to wider group at end of the discussion period)*	
Theme addressed *(Please check the box beside the theme your sub-group addressed)*	
☐	**(Theme 1)** To what extent can digital/non-digital tools support education during clinical internships (benefits, accessible, evaluated)?
☐	**(Theme 2)** To what extent can educational institutions ensure that the clinical environment promotes high quality learning for students? Specifically consider the role of the clinical learning co-ordinator support education during clinical internships and how to manage the scope of practice and evaluation of learning and internship
☐	**(Theme 3)** To what extent can educational institutions ensure clinical internships have relevance to practice? Specifically consider the range of clinical environments, working in an interdisciplinary domain, integrating learning outcomes
☐	**(Theme 4)** How can stakeholders manage the lessons learned from student and educational institutions so that quality of clinical internships can be sustained over time? Also consider how the draft recommendations from the HEAL Erasmus project could support sustainability of high-quality clinical internships.
Points discussed by group *(Please use space on back of page if required, additional pages available)*	
☐ Discussion points presented to wider group	

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Appendix 4: 'Good Practice' Framework Template

Site: xxxx

Development of Implementation and Policy Recommendations – data collection framework (PR5:3A)

Document prepared by TCD partner site

Background

Designing clinical placements for healthcare students is a complex process and requires careful planning to ensure the learner gains the necessary experience while maintaining patient safety and aligning with educational and accreditation standards.

Following a meeting on the 19th August 2024 between HEAL project managers and the TCD member site, the output of PR5 was updated.

An agreed output of the HEAL Erasmus project is Development of Implementation and Policy Recommendations (see PR5:3a,b). This is referred to as a 'Good Practice' Report (see PR5:3b). This Report presents findings from the studies conducted at each partner site and from these extracts a list of implementation recommendations (see PR5:4b). To collate this document, a 'Good Practice' data collection framework (see PR5:3a) was developed by TCD (this document presents this framework.

Each site will complete the 'Good Practice' framework (see PR5:3a) and return to TCD site (via project manager).

If you have any questions, please contact TCD project team (via HEAL project manager).

See Table 1 on page 2 for updated tasks for PR5.

Table 1: Updated PR5 tasks following the meeting on the 19th August 2024

	Task	Updated tasks	Progress
1	**Creating dialogue with ministries**	**1a:** Already in the beginning of the project (by Partners).	For each site to document progress
2	**Creating dialogue with the European Reference group** 2 meetings	**2a: First meeting:** organized to get input to the needs assessment and the scoping review	Completed
		2b: Second meeting: organized after the first testing phase, where the group will give input to the Innovative Framework and the first testing results can be discussed with them.	Completed by project coordinators
3	**Development of Implementation and Policy Recommendations**	**3a: National level:** this will focus on how the individual learning activities can used as an additional tool or supplement to aid end users design clinical internships. TCD to develop a **'Good Practice' framework**. Each site to be sent a 'Good Practice' framework to complete detailing the lessons learned. These lessons include the benefits, challenges, limitations to generalisability, and implementation recommendations of their learning activity.	Framework to be developed and circulated by TCD
		3b: European level: Themes collated from the completed 'good practice' framework feedback (see National level), will be presented in a Report, referred to as the **'Good Practice' Report**, for the EU Reference Group. The themes will draw on the lessons learned (at each individual site) and will focus on how to transfer examples of good practices beyond this project.	On hold until information 'Good Practice' framework developed, circulated and returned to TCD.
4	**Development of Good Practice examples**	**4a: Short video:** Developing a question set that can be shared with each site to include in a video on the topic of good practice. Each video should contain of at least 5 examples on the lessons learned during the project.	Question set to be constructed and circulated.
		4b: List of implementation recommendations: A list of themes around the implementation of learning activities from the 'Good Practice' Report' (and individual returned 'Good Practice' framework) will be developed focusing on the importance of contextualization when working and implementing learning activities.	On hold until information 'Good Practice' framework developed, circulated and returned to TCD.

Question set (in framework)

The 'Good Practice' data collection framework details the lessons learned at each partner site. These lessons include the benefits, challenges, limitations to generalisablity, and implementation recommendations of their learning activity.

These topics were drawn discussion with the project group and uses the 4 P's of creativity, is a design thinking process model, as a structure. The 4 P's of creativity (Rhodes 1961) are **person**, **process**, **product** and **press**.

- 'Person' refers to the creative team. In this framework, we refer to the individual study sites as 'person'. The purpose of the Person questions in the framework is to provide background and context for the individual study results.
- 'Process' refers to the steps or methods used in generating creative ideas. In this framework, this describes the individual studies and methodologies used at each site to deploy a specific learning activity. This learning activity was identified in an earlier part of the project (Needs Analysis and Scooping Review). The purpose of the Process questions in the framework is to describe the six individual studies.
- 'Product' refers to the tangible outcome of the creative process. In this framework, this describes the outputs of the research (at the individual sites) which are the Method Cards. The purpose of the Product questions in the framework is to list and describe the Method Cards produced by each study site.
- 'Press' refers to the external factors that influence creativity, such as the social, cultural, and physical environment. In this framework, this describes the context of each site including the educational requirements and year of study of the sample population. The purpose of the Press questions is to provide an opportunity for each site to discuss their findings and highlight any points that should be considered when reviewing the individual site findings.

In design thinking, the 4 P's are used to provide a comprehensive framework for fostering creativity in various contexts. In this framework the 4 P's used as a structure and are adapted to provide a means of exploring the lessons learned at each study site for their individual learning activities. Under each P, sites will be asked to discuss other topics such as the benefits, challenges, limitations to generalisablity, 'Good Practice' Recommendations and implementation recommendations of their learning activity.

In line with agreed tasks in PR5 table, the 'Good Practice' framework is considered to represent a national perspective of the HEAL Project, focusing on how the individual learning activities can become an accepted standard in national health education programs. To provide an international review, the content of the returned 'Good Practice' frameworks will be reviewed by the members of the TCD partner site. Themes collated from the completed 'good practice' framework feedback (see PR5:3b), will be presented in a Report, referred to as the 'Good Practice' Report, for the EU Reference Group. The themes will focus on how to transfer examples of good practices beyond this project.

'Good Practice' Framework

To be completed by each site and returned to HEAL Project. Content will be collated into 'Good Practice' Report (see PR5:3b) and list of implementation recommendations (see PR5:4b).

A. 'Person' question

The purpose of the Person questions in the framework is to provide background and context for the individual study results.

A1. Name of site	
A2. Site PI	
A3. Description of site	
A4. Description of topic	

A5. In relation to the 'Person' questions, please include any additional information you would like to share with the project.

B. 'Process' questions

The purpose of the Process questions in the framework is to describe the six individual studies.

Please include details of the study completed at your site in the table below:

B1. Learning activity reviewed (include reference of learning activity)			
B2. Why were this activity chosen (problem it addressed)			
B3. Study aim			
B4. Methodology used in learning activity review			
B5. Evaluation method			
B6. Was a pilot phase performed			
B7. Number of testing phases (not including pilot)			
B8. Sample population group (type of participant i.e. nurse, medical) and number	Pilot phase		
	Testing phase 1		
	Testing phase 2		

B9. From your research findings, please describe the benefits of the learning activity (at your site).

B10. From your research findings, please describe the challenges of the learning activity (at your site).

B11. From your research findings, please describe any implementation recommendations of the learning activity (that was used at your site)

B12. In relation to the 'Process' questions, please include any additional information you would like to share with the project.

C. 'Product' questions

The purpose of the Product questions in the framework is to list and describe the Method Cards produced by each study site.

C1. What method cards were produced at your site (include references)?

Method card produced at site	Include reference for method card

Include as many method cards as possible by including an additional line

C2. From your research findings, please describe any benefits or challenges of the topic of the method card(s) (developed at you site)

C3. In relation to the 'Product' questions, please include any additional information you would like to share with the project.

D. ‘Press’ questions

The purpose of the Press questions is to provide an opportunity for each site to discuss their findings and highlight any points that should be considered when reviewing the individual site findings.

D1. From your project, please describe your findings.

D2. From your research findings, please provide ‘Good Practice’ examples (minimum five)

D3. In your opinion, are there any limitations to generalisability of the 'Good Practice' examples produced by your site.

D4. In relation to the 'Press' questions, please include any additional information you would like to share with the project.
