HEAL
internsHips in futurE hospitALs

Evaluation report

Denmark – Odense University Hospital

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University Hospital

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1. Description of the Intervention

Starting Point and Current Situation:

With insight into the challenges and changed frameworks that are predicted for the future healthcare system, the aim of the HEAL project at Odense University Hospital is to innovate and find learning methods that will be able to meet the continuing needs for high-quality education for nurses and doctors.

The future perspective shows changes to the traditional practical learning framework, fewer hospitalized patients and limited resources in relation to healthcare staff. At the same time, there will continue to be a need for education for a large number of education seekers.

There is a risk of reduced opportunities for practical training with the patient, but at the same time we consider this part to be of significant importance for the students' education, and as preparation for the great responsibility, the students have after graduation.

The specific aim of the project has therefore been to develop, test and propose different methods in relation to offering high-quality internships in the future. With the project, the aim is to show direction for how the traditional practical can be combined with other innovative learning and teaching methods.

We arranged two focus group interviews – one with clinical teachers and one with nursing students. Based on our findings and expressed needs of clinical teachers and nursing students, the students were introduced to a learning style test to identify whether they were pragmatists, theorists, activists, or reflectors. This aimed to tailor learning activities to their preferred learning styles. Furthermore, the students were asked, in the end of the project period, to describe how far they had come in working with the goals, and what they needed to work on in the coming period of the nursing program to advance. In the pilot phase the students were asked to answer the questions below:

1. How have you worked with the learning objectives? What activities and nursing interventions have you worked with in connection with the goals?	2. Which sub-competences and skills have you acquired? Where have you developed? What has been good and what has been difficult?	3. Which elements should you continue to work with in your next internship? What should you bring to the initial dialogue with your next supervisor? How can you, based on your current internship, ensure that you are optimally prepared when you start the next one?

In that way we tried to accommodate their needs, while simultaneously working towards the goal of the HEAL project, which is supporting clinical teachers and students in planning internships that accommodates the challenges of crowding, practice chock and having limited time in the clinic together, when each clinical teacher have the responsibility for many students. Lastly it is expressed in the application for the HEAL project that it is highly important that we work with the confidence of the students, which we have done by adjusting the tools with the feedback they have given us. The materials kept in the project are the ones that the students express help them advance in their studies and give them a sense of confidence in working with the goals.

Activities in the Testing Phase:

- **Learning Style Test:** Students took a learning style test before the project started and discussed the results with their clinical teachers to understand their learning preferences.
- **Selection of Learning Goals:** Students selected two to three learning goals from their semester description to work on throughout the project.
- **Reflective Practices:** Students maintained a learning portfolio, documenting their activities, skills acquired, and reflections on their progress.

After the pilot stage and the two testing rounds, the clinical teachers are very positive and adamant in incorporating the tools in different ways in their daily practice.

Changes/Improvements after Pilot Stage:

Based on feedback from the pilot phase, the project was adapted to be more flexible and integrated into the students' regular workflow. This included better alignment of project activities with clinical

practice and improved documentation methods. In this process we stopped having students create a learning portfolio, because even though it was a need expressed by the students, it did not work in practice, and turned out to be experienced as a large extra work load for the students, and it was only a few of them who actually tried to create it.

Furthermore, we included all students in the pilot phase, but quickly learned that first semester students were not benefitting from the project, at the same level as students further along in the nursing program. First semester students only have three weeks of internship, and they are more occupied with learning the specialty, the staff and just experiencing how it is being a professional in a hospital. Therefore first semester students have been excluded in the first and second testing round.

2. Description of the Implementation Process

Participants and Timeline:

- **Staff and students:** The project involved eight clinical teachers who participated at different stages in the project and 33 students during the project phase and the two testing phases.
- **Timeline:** The pilot phase spanned over four weeks in the spring of 2023, the first testing round spanned over four weeks times two in the fall of 2023 and lastly the second testing round spanned over 4 weeks times two in the spring of 2024. As we have included students from second, third, fourth and sixth semester, who are not in internships at the same time, we have managed to do a double loop learning in the first and second testing round. We have included second and sixth semester in one loop with a duration of four weeks and third and fourth semester in a second loop with a duration of four weeks. We have had check-ins with both the students and the clinical teachers both before and after the testing rounds, and made adjustments based on ongoing feedback.
- **Resources employed:** Online tools for the learning style test, structured reflection templates, and regular supervisory meetings.

Evaluation Methods:

- **Surveys:** Students completed surveys evaluating their preparedness, the clarity of instructions, relevance of learning activities, and overall experience.

- **Interviews:** Clinical teachers were interviewed to gather qualitative insights into the project's impact and areas for improvement.
- **Assessments:** Students' progress was assessed based on their reflections and the achievement of their learning goals.

3. Evaluation report participants/learners

Students' experience:

Students generally found the learning style test and reflective practices helpful for understanding their learning preferences and structuring their learning activities. However, some students felt overwhelmed by the additional tasks and suggested better integration into their daily routines. It was very clear that the students who were more engaged in their learning gained a lot from the project and was very excited about the materials we developed, while students who were struggling with either the academics or personal challenges experienced the project as an extra task, and did not gain as much from it.

Main Quantitative and Qualitative Results:

- **Survey results:**
    - 63 % of students recommended the method to others.
    - 58 % felt there were sufficient learning opportunities.
    - 83 % found the feedback they received valuable.

- **Qualitative feedback:**
    - Strengths: Increased awareness of learning styles, structured reflection, and improved understanding of learning goals.
    - Weaknesses: Overlap with other responsibilities, initial confusion about project expectations.
    - Suggestions: More concrete instructions, better integration with clinical practice, and online documentation tools.

Student quotes:

- "It was very beneficial to work structured with learning goals. It gave me an overview of the goals I wanted to work with."
- "The project was confusing initially, but once I understood it, it helped me reflect better on my actions."

4. Evaluation report clinical teachers

Feedback:

Clinical teachers appreciated the structured approach to student learning and found the reflective practices valuable. However, they noted challenges in consistently integrating the project into busy clinical schedules. The clinical teachers have different ways of working with the students, and it became clear during the project, that the clinical teachers who follow their students more closely during the internship also felt it easier to continuously follow-up with the students, and keep them engaged. All of the clinical teachers felt the need to keep the students engaged with the project. One clinical teacher who participated in both the first and second testing round tried to follow the students closely in the first testing round, and in the second testing round, she tried to take a step back, and let it be more up to the students to do the tasks related to the project. She experienced a big difference between the two testing rounds, and found that the students gained more from the project in the first testing round, where she followed them closely. So it was a general conception that in this very early stage of implementation, the students must be pushed to engage, and that might also have a connection to the project still being very new to the clinical teachers as well. It is still not a natural part of their daily practice, as the clinical teachers and we want it to be in the future.

Main qualitative results:

- **Feedback:**
  - Strengths: Enhanced student reflection, better understanding of individual learning styles, improved supervision quality.
  - Weaknesses: Time constraints, need for more practical integration, reliance on students' self-reporting.

    o Suggestions: Online tools for easier access to students' reflections, more structured guidance for implementation. This also connects with the clinical teacher's initial need for interaction between the materials in the clinic and the system 'Praktikportalen'.

Staff quotes:

- "The learning style test helped me understand my students better and tailor my supervision."
- "We need better integration into the daily routine to ensure consistency."

5. Evaluation by project implementers

It has from the beginning been a challenge to recruit clinical teachers to participate in the HEAL project, mainly because the clinical teachers have very busy schedules, and they are hesitant to partake in something that is not mandatory. However many of the clinical teachers that did participate in the project were so excited about what the project could offer that they wanted to continue in the following testing rounds. Almost all of the clinical teachers who have been involved in the project will continue using the tools, and are keen on getting their colleagues at their units involved as well. We learned that it is important for the clinical teachers to have online access to the materials that we have developed, so the students can write online in a dynamic document, where the clinical teachers can follow their progress, also supporting asynchronous learning.

We made an agreement with the university college that are responsible for the nursing students, that said that whichever unit we got to participate in the project, the students allocated there would automatically participate. This have been very beneficial for the project, as we have included students with different academic levels, different engagement levels and students with very different learning styles. It has given a lot of important knowledge to us, as we wish to develop materials that suits students with different needs, so we can live up to what the HEAL project wants to obtain which is, among other things, co-creation and individualization.

Lastly, we learned that it will take a huge amount of work to implement the tools, but the clinical teachers are so excited about the project, that we will start by presenting the tools to more clinical teachers. We will help them see how they can implement the tools to make it easier to cooperate with students, co-create and give some responsibility to the students, where they can still oversee the progress the students make.

Strengths, weaknesses, and suggestions for improvement:

- **Strengths:** Increased focus on individualized learning, structured reflection, improved student-supervisor communication.
- **Weaknesses:** Implementation challenges, time management, and initial confusion about project details.
- **Suggestions:** Develop online tools for documentation, provide instructions that are more detailed, and ensure better integration into clinical practice.

Lessons learned:

- **Education theory:** Tailoring learning activities to individual styles enhances engagement.
- **Context:** Implementation must consider the practical constraints of clinical settings.
- **Format and design:** Structured, yet flexible approaches work best; online tools can streamline processes.

6. Conclusions & recommendations

Developed teaching methods and framework cards:

The methods that we have created are:

- Implementing the students learning style in the daily reflections and work with learning goals.
- Breaking down goals into partial competencies, how to achieve the goal and how the clinical teacher and student can co-create in making a plan on what activities.

The method cards we have created so far are:

- Asynchronous learning
- Corporative learning
- Creating an action plan
- Evaluation
- Gibbs' reflective cycle
- Implementation
- Learning style test

- Learning style assessments
- Peer learning
- Reflective supervision

We will continue to develop method cards, as we work on the implementation.

Promoting factors and barriers:

- **Promoting Factors:** Tailored learning activities, structured reflection, and supportive supervision.
- **Barriers:** Time constraints, initial confusion, need for better integration.

Adaptations for sustainable implementation:

- **Changes needed:** Online documentation tools, more concrete instructions, scheduled time for reflection.
- **Scaling up:** Ensure consistent implementation across different clinical settings and provide training for supervisors.

Contribution to Overall Aim:

At Odense University Hospital, we successfully enhanced the learning experience of nursing students by integrating personalized learning activities and reflective practices. The lessons learned and recommendations will contribute to the overall aim of creating more effective and engaging nursing education programs.

Annexes

Annex 1 - Local version of the evaluation questionnaire

Annex B - Questionnaire learners
Please replace [internship] with the name of the pilot in wording that students will recognize

_____

Evaluation form Internship HEAL

This questionnaire serves to evaluate your experience with the [internship]. We ask your opinion about the preparation and organization, the learning activities and the supervision and feedback.

Many thanks for your cooperation!

Evalueringsskema HEAL

Du modtager dette spørgeskema så du kan evaluere din oplevelse med HEAL projektet. Det er rigtig vigtigt for os med din besvarelse. Vi vil gerne bede om din mening ift. hvordan du følte dig forberedt til at deltage i projektet og hvordan du oplevede selve tilrettelæggelsen af projektet, de forskellige læringsaktiviteter samt den modtaget vejledning og feedback undervejs i projektet.

Mange tak for dit samarbejde!

Domain	Item	Item type & Reporting
General Generelt	1. I would recommend this [internship] to other students Jeg vil anbefale denne metode til andre studerende	Yes / No Ja/Nej
	2. Please rate the organization of this [internship] Bedøm venligst tilrettelæggelsen af denne projektperiode	Score (1-10) M+ SD
	3. Please rate the instructiveness of this [internship] Bedøm venligst hvor lærerigt din deltagelse i projektet har været	Score (1-10) M+ SD
	4. Please rate the learning climate during this [internship] Bedøm venligst læringsmiljøet ift. din deltagelse i projektet	Score (1-10) M+ SD
Introduction & provision of information	5. It was clear to me what to expect from this [internship] before starting	Likert; 1-5; fully disagree – fully agree

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Introduktion og adgang til informationer	Det var klart for mig hvad jeg kunne forvente ift. deltagelse i projektet før det startede	1-5 Komplet uenig – komplet enig
	6. Instructions on the first day of the [internship] were clear and complete Instruktionerne om projektet var klare og fuldkomne fra den første dag jeg startede deltagelse i projektet	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig
Learning activities Læringsaktiviteter	7. The learning activities during this [internship] were relevant to obtain the learning goals Læringsaktiviteterne i projektet var relevante for at opnå mine læringsmål	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig
	8. The learning activities during this [internship] aligned with my prior knowledge and skills Læringsaktiviteterne i projektet stemte overens med min eksisterende viden og færdigheder	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig
	9. There were enough opportunities to learn during this [internship] Der var nok læringsmuligheder i løbet af projektet	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig
Supervision & Feedback Supervision og feedback	10. I received sufficient feedback on my performance Jeg modtog tilstrækkelig feedback på min præstation i forbindelse med projektet	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig
	11. The feedback I received was valuable Den feedback jeg modtog var værdifuld	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig
Learning climate Læringsmiljø	12. I felt welcome during this [internship] Jeg følte mig velkommen i løbet af projektperioden	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig
	13. I felt free to ask questions during this [internship] Jeg følte mig fri til at stille spørgsmål i løbet af projektet	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig

Closing questions Afsluttende spørgsmål	14. What have you appreciated about this internship? Consider organization, provision of information, learning activities, supervision and feedback, learning climate, etc. Hvad har været værdifuldt for dig ift. at deltage i projektet? Overvej organisering, formidling af information, læringsaktiviteter, supervision og feedback, læringsmiljø mv.	Open ended question Åbent spørgsmål
	15. What suggestions do you have for further developing or improving this internship? Consider organization, provision of information, learning activities, supervision and feedback, learning climate, etc. Hvilke forslag har du til at videreudvikle eller forbedre dette projekt? Overvej organisering, formidling af information, læringsaktiviteter, supervision og feedback, læringsmiljø mv.	Open ended question Åbent spørgsmål
	16. Did the learning style test give you new insight in ways to learn? Har læringsstiltesten tilført dig ny indsigt i måder at lære på?	Yes/No Ja/Nej
	17. What learning methods have you used? Hvilke læringsmetoder har du anvendt?	Open ended question Åbent spørgsmål
	18. Have the methods used been conducive to your learning? Har de anvendte metoder været fremmende for din læring?	Likert; 1-5; fully disagree – fully agree 1-5 Komplet uenig – komplet enig
	19. Please rate to what extend you will use your experiences from the project in your further education? I hvor høj grad vil du anvende dine erfaringer fra projektet i dit videre uddannelsesforløb?	Score (1-10) M+ SD

This was the final question.
Thank you for your time!

Det var det sidste spørgsmål.
Mange tak for din tid!

Interview guide for final evaluation with clinical supervisors – HEAL

Part 1: Introduction and Learning Style Test

Preparation for the learning style test:

- How did you introduce the learning style test to the students?
- What significance do you believe understanding the learning styles has for the students' development?

Discussion of learning style results:

- Can you describe how you discussed the results of the learning style test with the students?
- What challenges or surprises arose during the discussions about learning styles?

Application of learning styles in practice:

- How have you helped students apply their understanding of their learning styles in practice?
- Can you provide examples of adjustments or changes students have made based on their learning styles?

Part 2: Selection and Work with Learning Objectives

Selection of learning objectives:

- How did you support students in choosing their learning objectives?

Planning learning activities:

- Can you describe the process of how you and the students planned learning activities for the chosen objectives?
- What methods or approaches did you recommend to achieve these learning objectives?

Collaboration on learning objectives and methods:

- How did you facilitate reflection and dialogue about the students' learning objectives and choice of methods?
- Are there specific methods or tools you found particularly effective in this work?

Part 3: Evaluation and Adjustment

Feedback and adjustment:

- How did you provide feedback to the students about their progress towards their learning objectives?
- How have you and the students worked together to adjust learning activities based on feedback?

Reflection on the process:

- What have been the biggest challenges for you as a supervisor in this process?
- How has this experience influenced your approach to guiding students?

Future strategies:

- Are there any changes or improvements you plan to implement in your supervisory practice based on the experiences from this project?

Conclusion:

- Is there anything I have not asked about that you would like to add?