

Interprofessional scenario-based simulations for palliative care

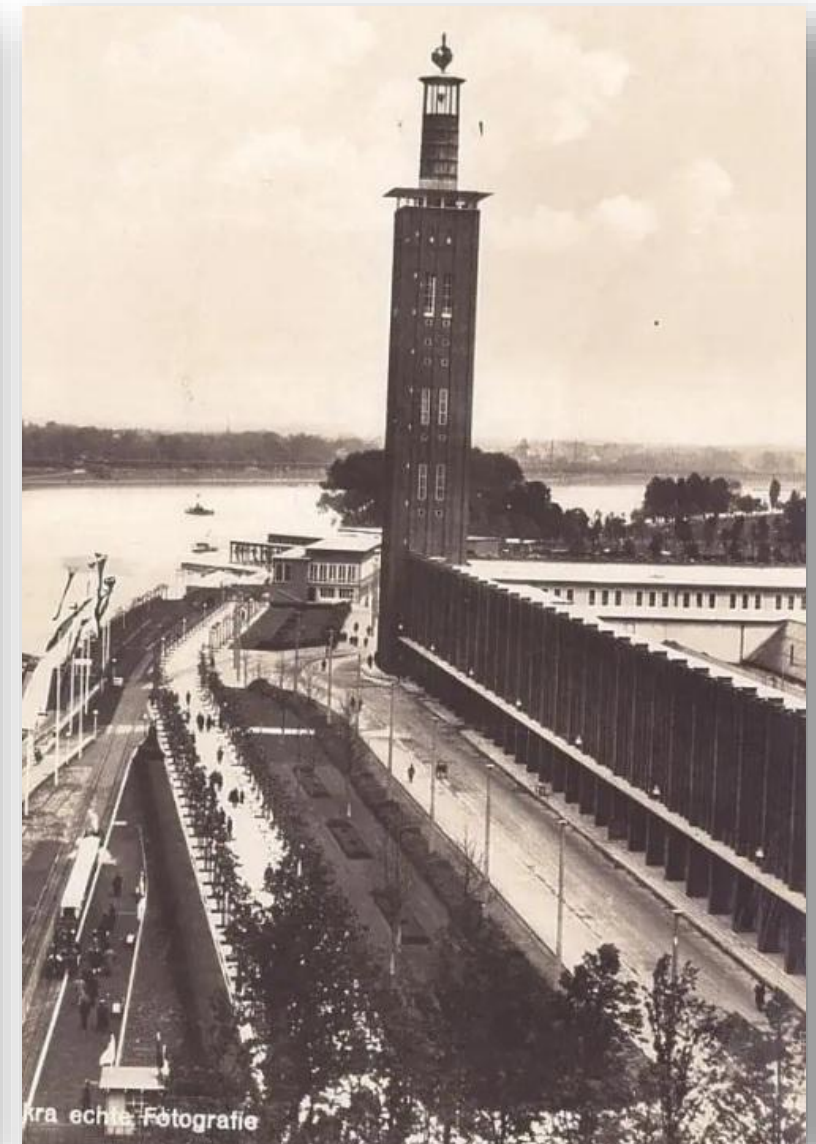
ACTIVATE Symposium, Münster

1. June 2026

Bas de Leng, Juliane Schopf, Friedrich Pawelka, Nele Woermann, Johanna Kollet
(University of Münster)



Co-funded by
the European Union



ACTIVATE

ACTIVATE

ACTIVATE



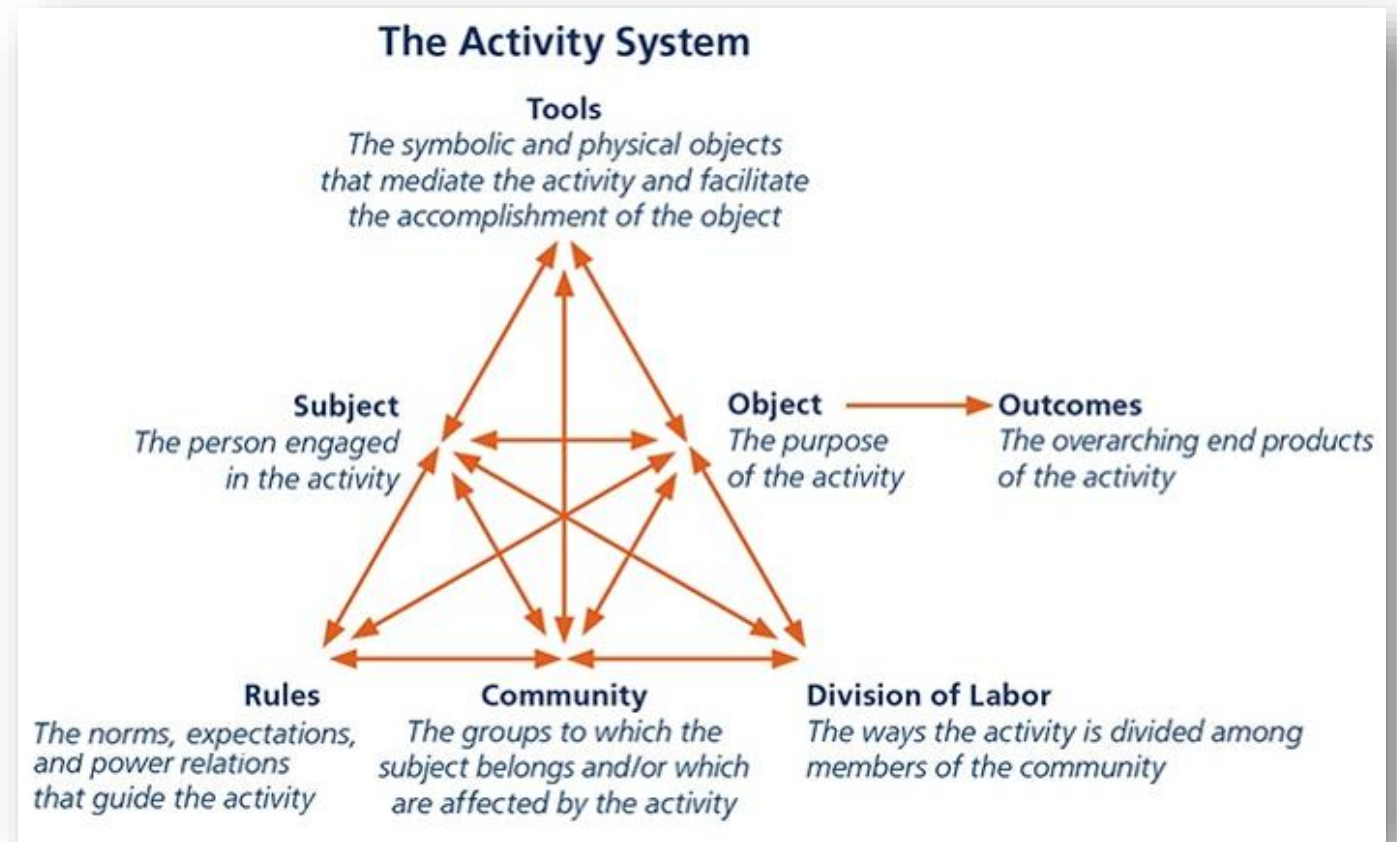
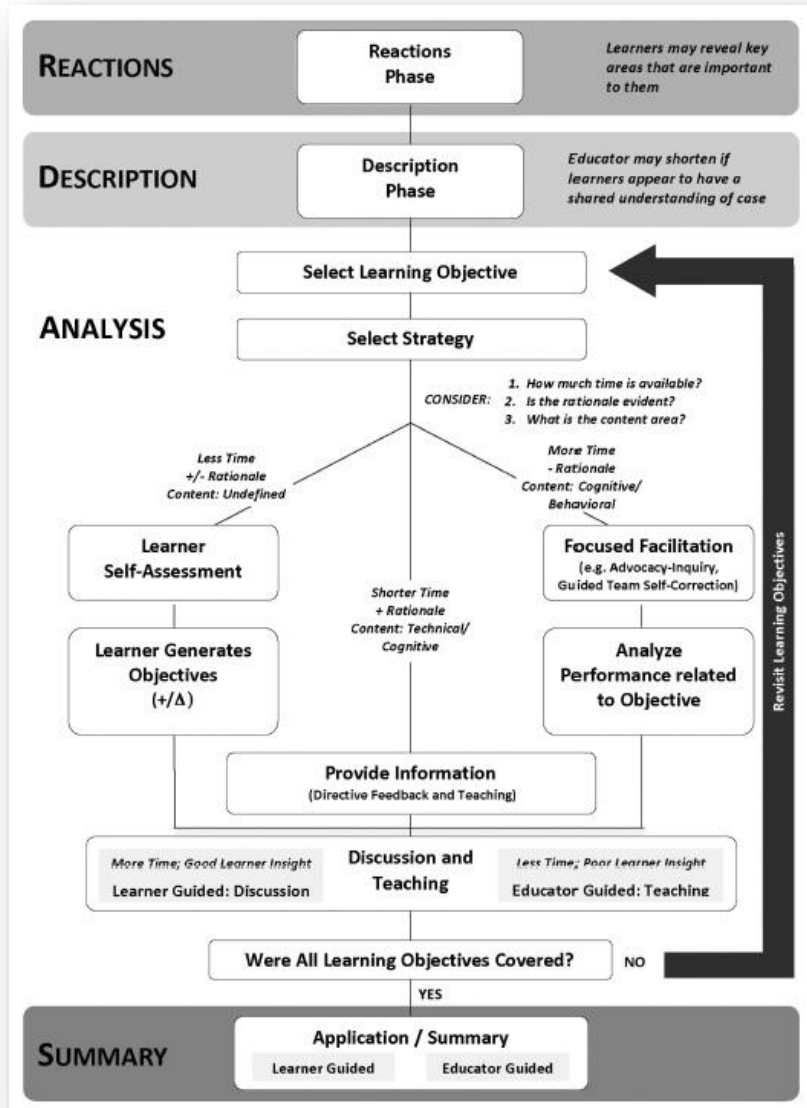
Aim for the sun....



.... and hit the moon



Simulation with interprofessional debriefing



CHAT framework (Engeström, 1987)

PEARLS framework (Eppich, 2015)

How can this abstract construct be applied to interprofessional collaboration in palliative care?

Development of a coding scheme for the six elements of an Activity System, based on two sources of authentic practice information:

1. Database of critical incident reports of palliative care cases (CIRSmedical.de)
2. Collection of academic papers describing interprofessional (IP) collaboration in palliative care.

Fall-Nr: 264104

Drucken | Kommentieren | Zurück

Fall

Titel: Komplexe Medikamentenanordnungen fernmündlich

Zuständiges Fachgebiet: Palliativversorgung

Altersgruppe des Patienten: 81-90

Geschlecht des Patienten: weiblich

Wo ist das Ereignis passiert? Krankenhaus

Welche Versorgungsart: leer

In welchem Kontext fand das Ereignis statt? Nichtinvasive Massnahmen (Diagnostik / Therapie)

Was ist passiert?
Im Rahmen pall.med. Konsildienst (PMD) im Krankenhaus wurde whd. 24h-Rufbereitschaft am Wochenende die diensthabende Arztperson von einer Arztperson aus der Klinik telefonisch kontaktiert. Normalerweise gilt die Rufbereitschaft nur für bereits vom PMD betreute PatientInnen, aus Kulanz wurde auch für eine noch unbekannte Patientin eine schmerztherapeutisch Empfehlung telefonisch ausgesprochen, welche vom Klinikarztpersonal mitgeschrieben wurde.
Da bei ED Karzinom, ausgedehnt metastasiert, kachektisch, beginnende Sterbephase, starke Schmerzen bereits fraktionierte ca. 20mg Morphinäquivalent i.v./24h erhalten: Beginn Medikation per Perfusor à Hydromorphon 5mg + Metamizol 3g + Midazolam 10mg ad NaCl0,9% 50ml, Lauftrate 2ml/h, s.c. oder i.v.
Falls Hydromorphon aktuell im Haus nicht verfügbar, vorübergehend Hydromorphon 5mg durch Morphin 25mg ersetzen.
Nach einiger Zeit erneuter Anruf des Arztpersonals beim Hintergrunddienst: Nachfrage, ob 25mg Hydromorphon im Perfusor korrekt seien, die Pflege habe darum gebeten nochmals nachzufragen.

Was war das Ergebnis?
Aufklärung des Arztpersonals, dass entweder 5mg Hydromorphon oder 25mg Morphin verwendet werden sollen, da unterschiedliche analgetische Potenz.
Perfusor wurde korrekt gerichtet und verabreicht, gute Symptomkontrolle.

Wo sehen Sie Gründe für dieses Ereignis und wie hätte es vermieden werden können?
Gründe: ggf. Sprachbarriere oder mangelndes Verständnis Opiode?
Vermeidung: Im Hintergrunddienst nur bzgl. bereits aufgenommener PatientInnen beraten und auf Kollegen vor Ort verweisen (z.B. andere Fachrichtungen, höhere Dienstebenen) oder sprachkompetentes (Pflege-)Personal mit ins Telefonat einbinden.

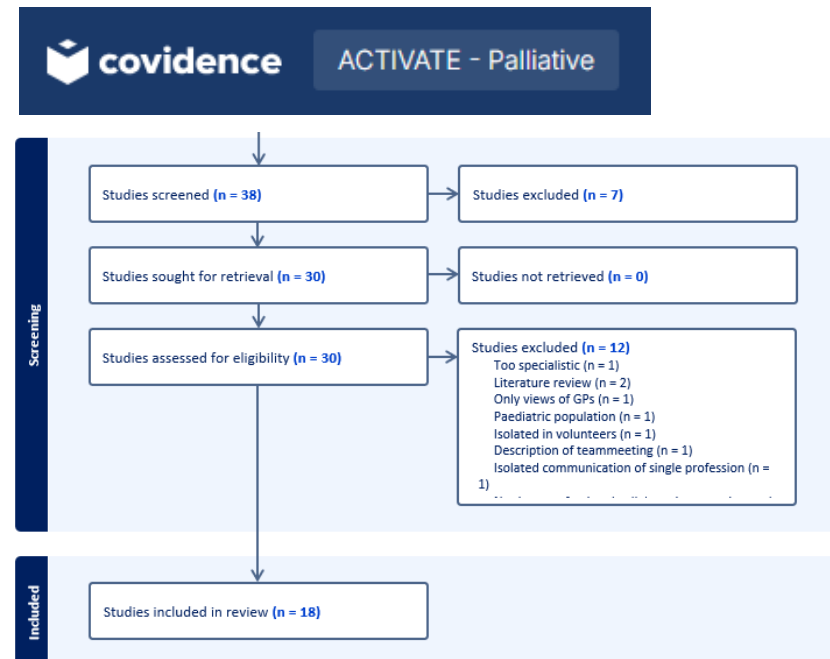
Kam der Patient zu Schaden? nein

Welche Faktoren trugen zu dem Ereignis bei?

- Ausbildung und Training
- Persönliche Faktoren des Mitarbeiters (Müdigkeit, Gesundheit, Motivation etc.)
- Organisation (zu wenig Personal, Standards, Arbeitsbelastung, Abläufe etc.)

Wie häufig tritt dieses Ereignis ungefähr auf? jährlich

Wer berichtet? Arzt / Ärztin, Psychotherapeut/in



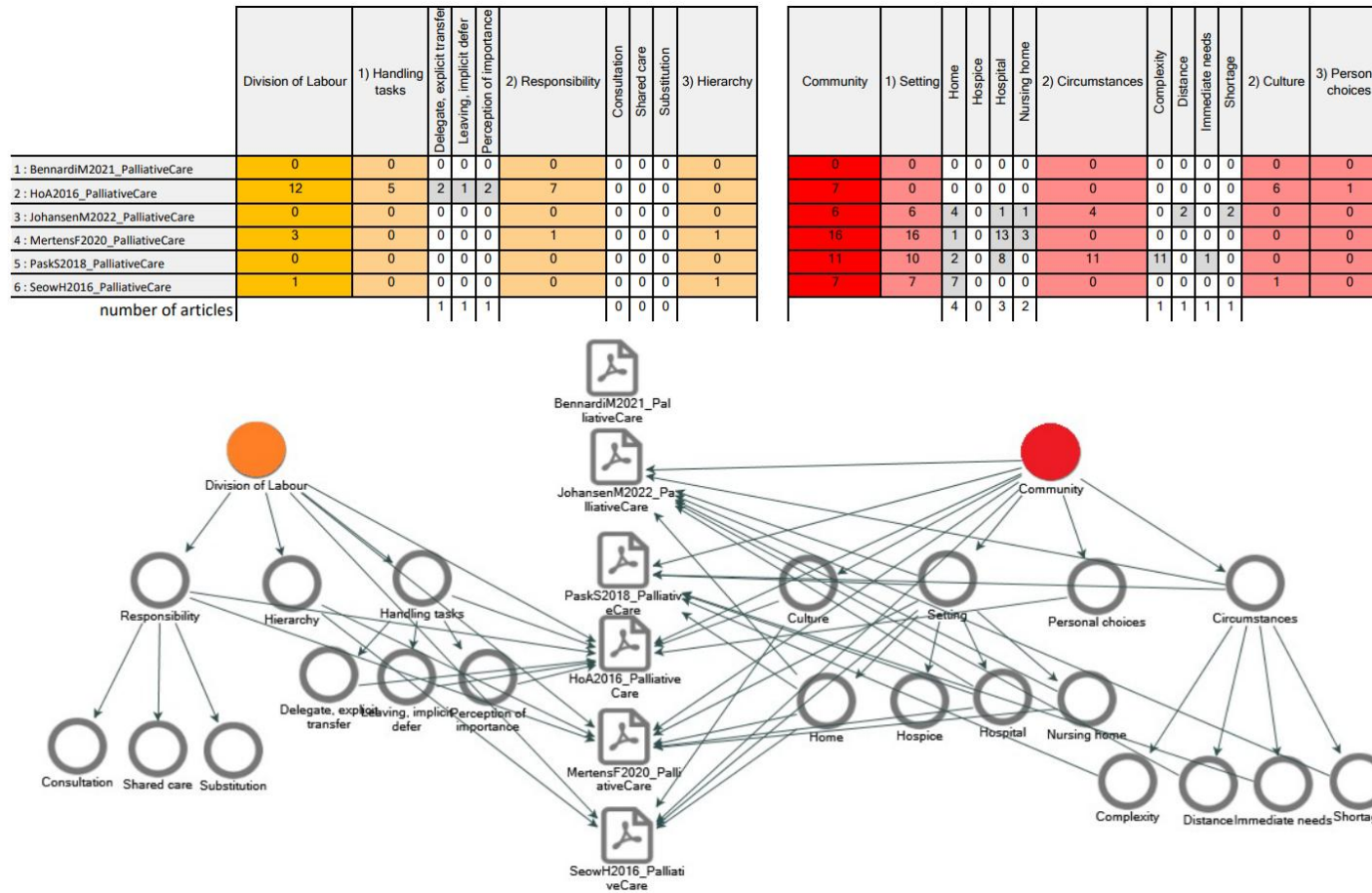
Coding scheme

- Codes for Object, Subject, Community, Tools, Rules and Division of Labour

Subject	IP team
	Medical practitioners
	Generalist
	Specialist
	Other Healthcare professionals
	Care staff
	Dietician
	Nurse
	Physiotherapist
	Social worker
	Spiritual carer
	Perceptions
	Emotions
	Incompetence
	Trust
	Uncomfortable
	Unsuccessful
	Unsure
	Relatives
Object	Action
	Decisionmaking
	Delivering care
	Delivering prognoses
	End of Life conversation
	Needs assessment
	Transfer
	Goal
	Cure
	Care
	Sign and symptoms
	Patient profile
	Age
	Cultural background
	Foreign language
	Informedness
	Known or unknown
	Pre-existing complexity
	Rejecting
Community	Stigmatised
	Relatives
	Dissonance
	Circumstances
	Complexity
	Distance
	Immediate needs
	Shortage
	Culture
	Appreciation
	Conception
Rules (act on Community)	Habitual practice
	Personal choices
	Career choice
	Setting
	Home
	Hospice
	Hospital
	Nursing home
	Action
	Communication
	Coordination
	Deliver
	Time allocation
	Timing and timeliness
	Interaction
	Awareness
	Connectedness
Tools (act on Object)	Construction
	Consultation
	Context information
	Negotiate
	Proactive
	Role
	Team
	Understanding
	Organisation
	Co-location
	Labelling artifacts
Division of Labour	Scheduling
	Stock
	Attitude
	Arrogance
	Conviction
	Discussion of own views
	Personal priority
	Territorial attitude
	Communication
	Implementation
	Means
	Competence
	Coaching
	Training
	Devices
	Delivery
	Handling tasks
	Delegate, explicit transfer
	Leaving, implicit defer
	Perception of importance
	Regulations
	Hierarchy
	Territorial attitude
	Responsibility
	Feelings
	Interest
	Trust

Coding scheme

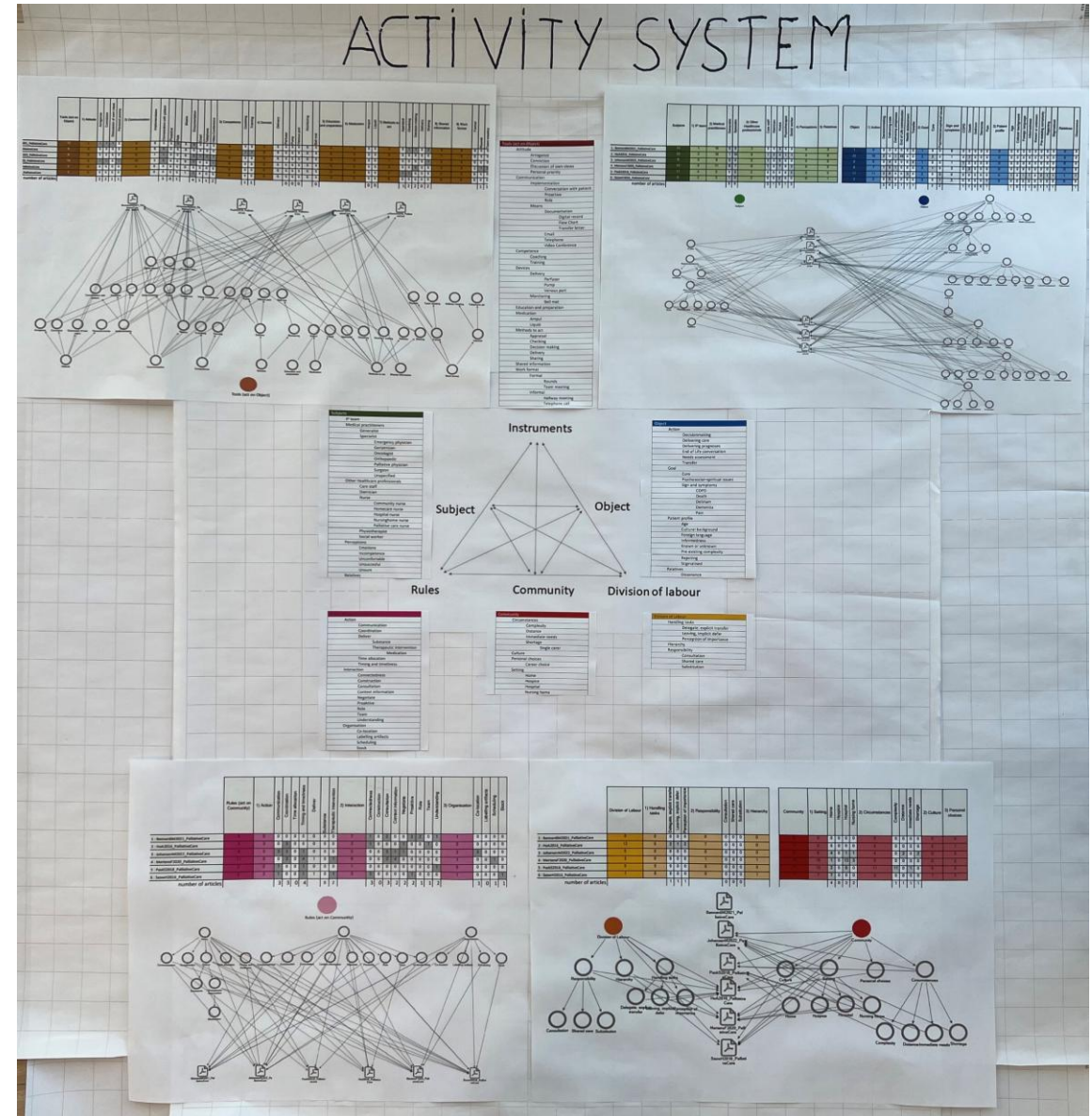
- Codes for Object, Subject, Community, Tools, Rules and Division of Labour
- Codes were assigned to descriptive articles to identify frequently mentioned issues.



How is this helpful for educational designers?

1. Content containers:

What aspects of IP collaboration are important to include in palliative care simulations and to address in the debriefing after the event.



How is this helpful for educational designers?

1. Content containers:

What aspects of IP collaboration are important to include in palliative care simulations and to discuss in the debriefing after the event.

2. Filling for containers:

Links to the examples in the text for concrete content

Elements of Activity Syst 0 0

- Community 7 70
- Division of Labour 5 42
- Object 8 85
- Rules (act on Comm) 8 70
- Subjects 8 153
 - IP team 5 14
 - Medical practitio 8 78
 - Other Healthcare 8 42

Reference 1 - 0,19% Coverage

hospital ward when people themselves are asking to stop therapy, that they actually still continue a little you know, and well yes, therapeutic obstinacy – I surely can't deny... ' (FG8 Palliative Care Unit, M, social worker)

Reference 2 - 0,68% Coverage

different view on when to initiate advance care planning discussions compared to specialists: 'Head nurse oncology: during the ward round with the doctor, I indicate very often: "look, do we have to talk about that yet? Do we already arrange specific things?" But then the doctor says: "but no, it's still too early"... And sometimes I got the feeling that every time while doing the round - again and again - well yes palliative DNR code – that in the end they will say "there she goes again". Social worker: "Yes, yes, yes, their stance is "we are here to treat, you know. We are not meant to..."

Summary Reference EDF

arterC202 HoA2016_P MertensF2 PaskS2018_
Palliativ... alliativeCa... 020_Pallia... Palliative...
(2) (2) (1) (3)

specialties to gain a holistic picture of the patient's overall situation, resulting in inconsistent messages in EOL care planning. This dynamic is especially taxing for interprofessional teams when physicians with divergent treatment recommendations have not coordinated the care plan with each other:

[Some physicians] will come in and treat the organ that they know... [but they will not] really talk to [the patients] about decision-making or the end of their life because [they] don't know what else is wrong with them. (Rowena, palliative care physician)

As it often happens, different physicians or other members of the team have different ideas about what the right care is for a patient. ... Negotiating that is challenging politically and it has other issues, and so sometimes you leave a situation feeling that the right decision wasn't made but ultimately you are going with the compromise for the group and you have to sort of accept that at times, working in a team setting. (Kendra, geriatrician)

Interprofessional teamwork

How is this helpful for educational designers?

1. Content containers:

What aspects of IP collaboration are important to include in palliative care simulations and to discuss in the debriefing after the event.

2. Filling for containers:

Links to the examples in the text for concrete content

3. Justification of the approach for the field Scientific paper

Making the Key Elements of Palliative Care Practice Visible to Inform for the Development of Interprofessional Scenario-Based Simulations in Undergraduate Health Professions Education

Bas de Leng¹, Florian Bernhardt², Philipp Lenz², Friedrich Pawelka¹, Juliane Schopf¹

¹Educational Institute (IFAS), Faculty of Medicine, University of Münster, Münster, Germany

²Central Palliative Care Centre, Academic Medical Hospital Münster, Münster, Germany

Email: bdeleng@uni-muenster.de

How to cite this paper: de Leng, B., Bernhardt, F., Lenz, P., Pawelka, F., & Schopf, J. (2025). Making the Key Elements of Palliative Care Practice Visible to Inform for the Development of Interprofessional Scenario-Based Simulations in Undergraduate Health Professions Education. *Creative Education*, 16, 812-831.

<https://doi.org/10.4236/ce.2025.166050>

Received: May 16, 2025

Accepted: June 21, 2025

Published: June 24, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Current undergraduate skills lab programmes in health professions education demonstrate an absence of interprofessional training, particularly with regard to comprehensive patient care and collaboration between primary and specialist care. The ACTIVATE project addresses this issue by developing interprofessional simulation scenarios for home and palliative care. The project aims to provide students with the opportunity to engage socially and intellectually with students from other profession. It should enable them to experiment with challenges that require the application of general knowledge and social and communication skills in a safe environment. Post-event debriefings should focus less on instrumental, direct solutions and more on "problematising" and "sensemaking", unlike traditional skills training debriefings. Cultural-Historical Activity Theory (CHAT) was used as a lens to identify data of interest for the design of simulation-based scenarios and for debriefing conversations. The six elements of an activity system—"Subject", "Object", "Community", "Tools", "Rules" and "Division of labour"—were used as overarching codes to identify and label critical incident reports of palliative care cases, as well as academic papers that used qualitative research methods to describe interprofessional collaboration in palliative care. Qualitative data analysis using a combination of deductive and inductive coding revealed 172 codes representing the elements of an activity system. The coding scheme's structure and the collection of related, authentic data emphasised aspects of interprofessional collaboration that could be incorporated into palliative care simulations and discussed during

Further Development in Educational Practice

August 2025: Debriefing with cards for SPHERE (Shared Pharmacy and Healthcare Education for Real-world Experience)

- Medical & pharmacy students work in pairs through 3 simulated cases, followed by a plenary debriefing



Answering questions on cards



Discussing the answers and placing them into the CHAT structure

Building up the CHAT diagram

Twelve questions

Object (purpose)

- 1) Did you generally feel that you all had the same goal in mind in these cases?
- 2) Were there also times when this wasn't the case? How did you deal with them?

Subject (actors)

- 3) Did you manage to get everyone involved in the activity? How did you manage to do that, and did everyone understand?
- 4) Were there also times when it was difficult to approach others, communicate with them, or reach a consensus?

Community (social cultural context)

- 5) What professional and social groups are represented here?
- 6) Did you have any idea what interests and conditions might be relevant here?

Tools

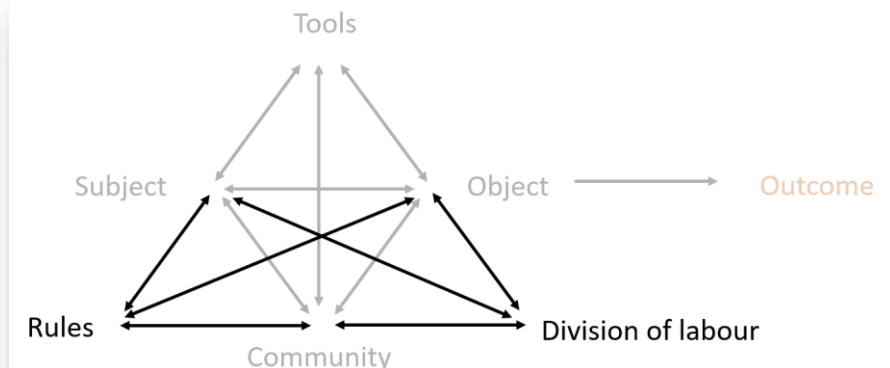
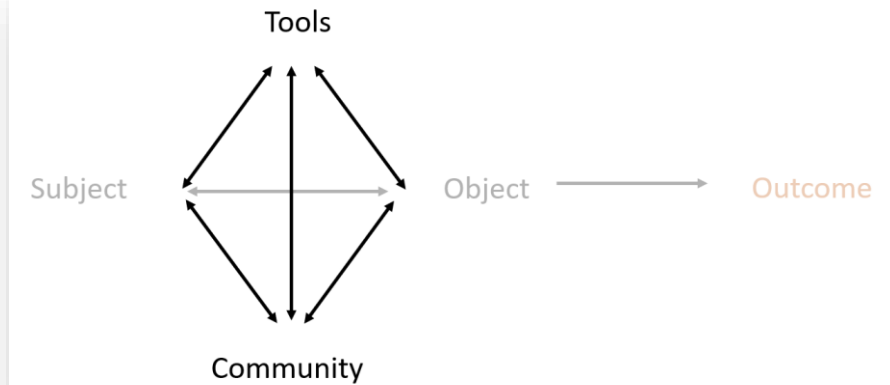
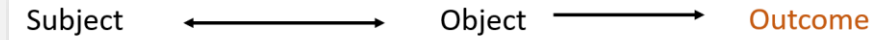
- 7) Which work resources, methods or tools were available?
- 8) Which of these methods did you find most useful for gaining a complete picture of the situation and establishing good cooperation?
- 9) Were there any resources that you feel were underused, or that caused you confusion?

Rules

- 10) Which specific rules played a role in this situation? (e.g. guidelines from professional associations, laws or internal departmental regulations).

Division of labour

- 11) Which actors had a major or greater influence on the situation?
- 12) Was that appropriate for the situation? Or could it have been handled better?



Feedback from students and tutors

- Students wished to have information about CHAT prior to the simulation.
- There are too many questions for a session of this kind.
- According to some tutors, the debriefing takes too long.
- Pharmacy and medical students sometimes have different understandings of certain concepts and terms.
- The questions were not always relevant to their own experiences.

Further Development: the questions

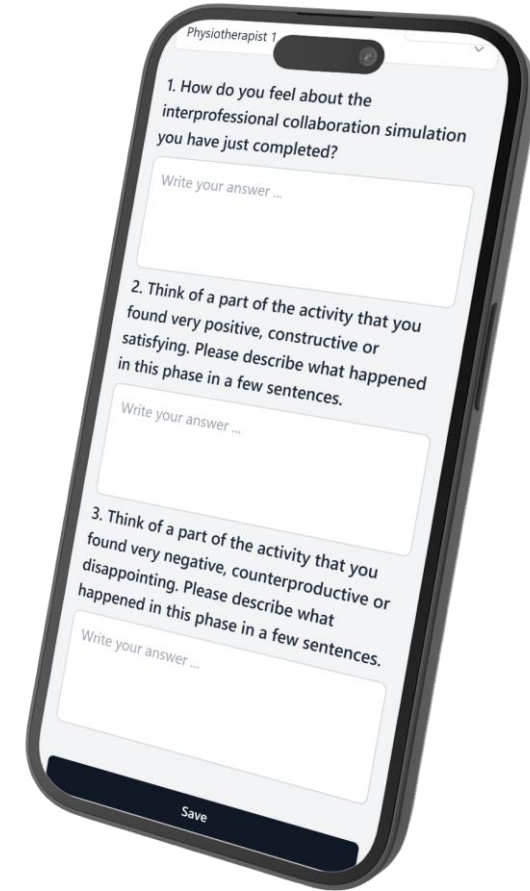
September 2025: Debriefing prepared with smartphones

Question to express emotions before delving into the substance of the experiences (reaction phase)

- 1) How do you feel about the interprofessional collaboration simulation you have just completed?

Open-ended questions to identify positive and negative experiences

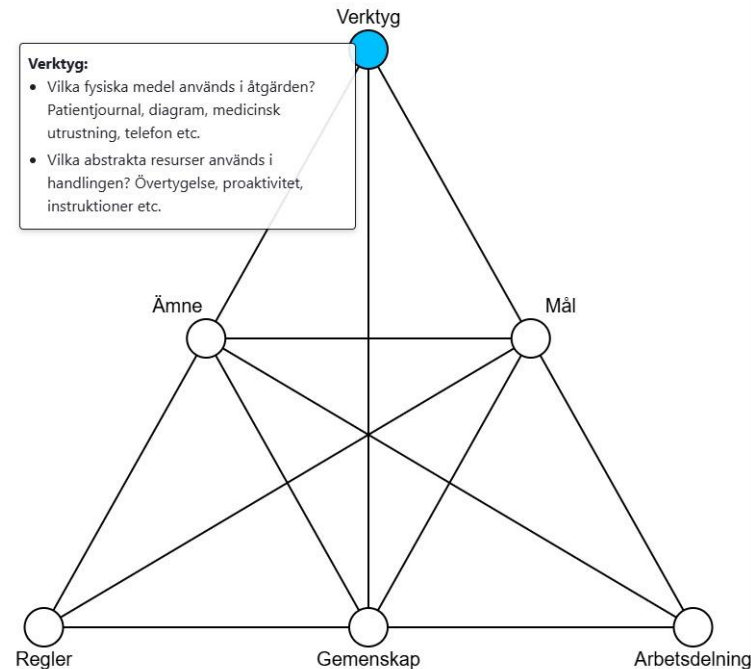
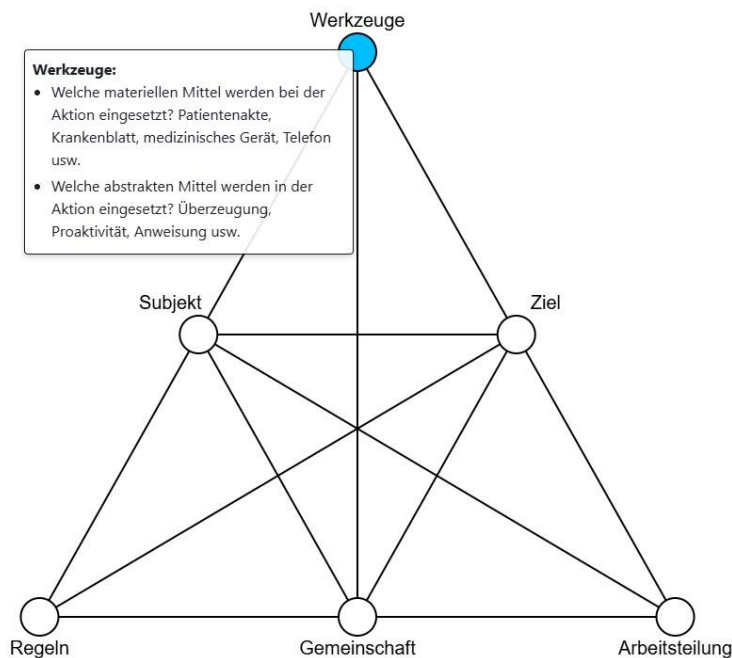
- 2) Think of a part of the activity that you found very positive, constructive or satisfying. Please describe what happened in this phase in a few sentences.
- 3) Think of a part of the activity that you found very negative, counterproductive or disappointing. Please describe what happened in this phase in a few sentences.



Answering questions

Further Development: the Debriefing Dashboard

- According to the coding scheme, multilingual labels were added as tooltips to the six CHAT elements.



Debriefing dashboard with tooltips

Tooltips

Object:

What is the goal of the action? Cure, Care, addressing psychosocial issues etc.

On whom or what is this action taken? Patient, Relative, Blood sample etc.

What action must be taken? Needs assessment, Reporting, Decisionmaking etc.

Subject:

Who are the actors in the action? Family physician, Medical specialist, Nurse, Social worker, Carers etc.

What perceptions, ideas and emotions are present in the actors? Uncertainty, Discomfort, Incompetence etc.

Community

Where does the activity take place? Home, Nursing home, Hospital etc.

What organisation do the actors belong to? General\University hospital, Independent\Municipal health care practice etc.

What conditions characterise this setting? Immediate needs, Distance, Shortage etc.

Tools

What physical means are used in the action? Patient record, Chart, Medical device, Telephone etc.

Which abstract resources are deployed in the action? Conviction, Proactivity, Instruction etc.

Rules

Which specific policies and rules are linked to the activity? Guidelines, Authorisation, Reimbursements, Co-location etc.

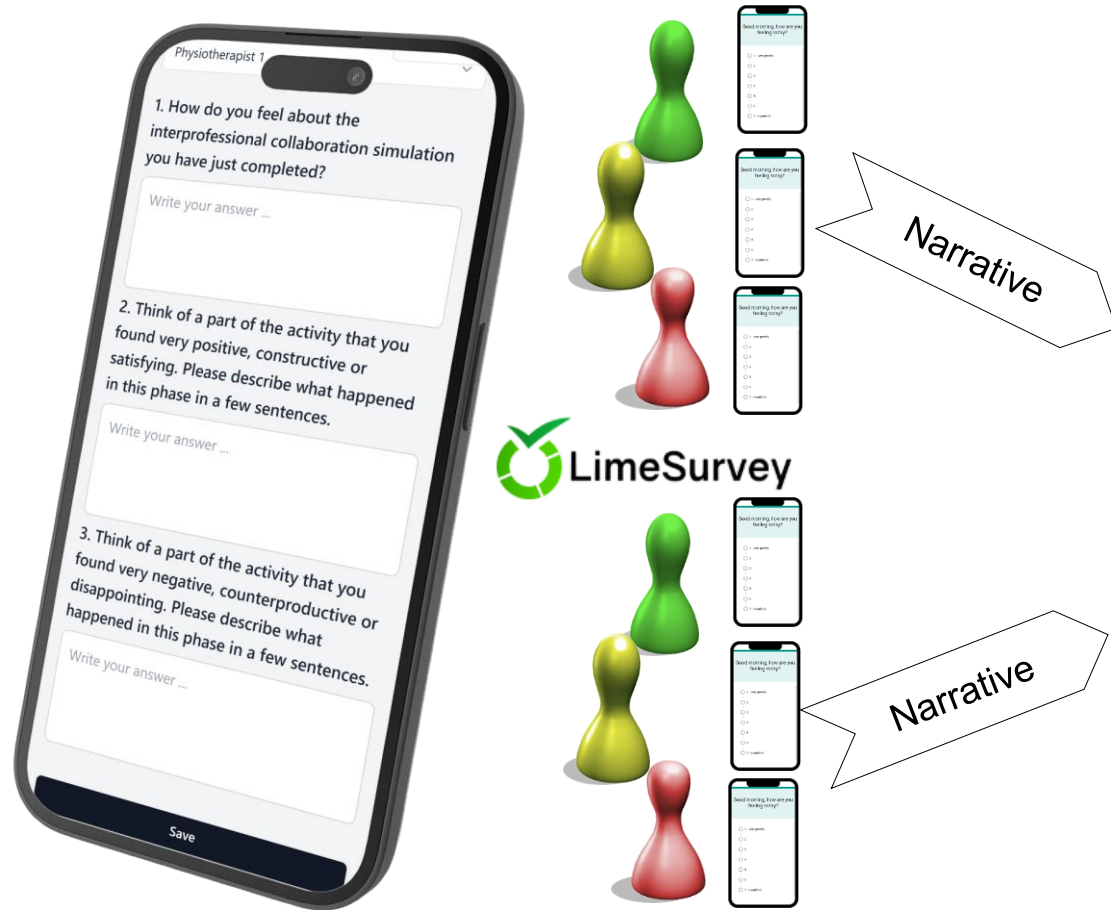
What implicit mores and conventions are linked to the activity? Priority, Career track, Professional jargon etc.

Division of labour

How can different people contribute to the activity? Hierarchy, Role, Leadership, Territorial attitude etc.

Implementation: preparation with smartphones

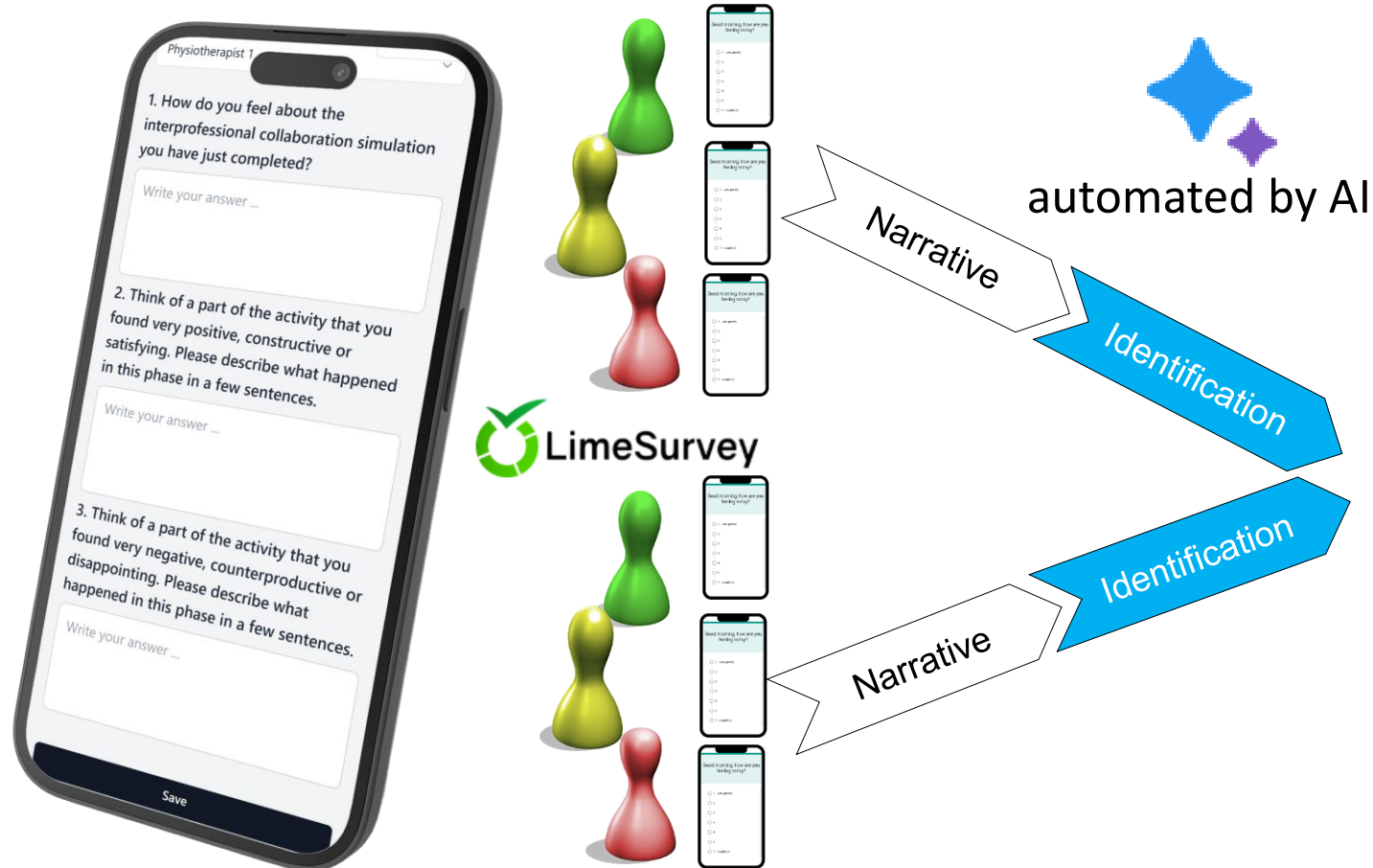
- Medical, nursing, and physiotherapy students work in groups of three through a simulated case, followed by a plenary debriefing



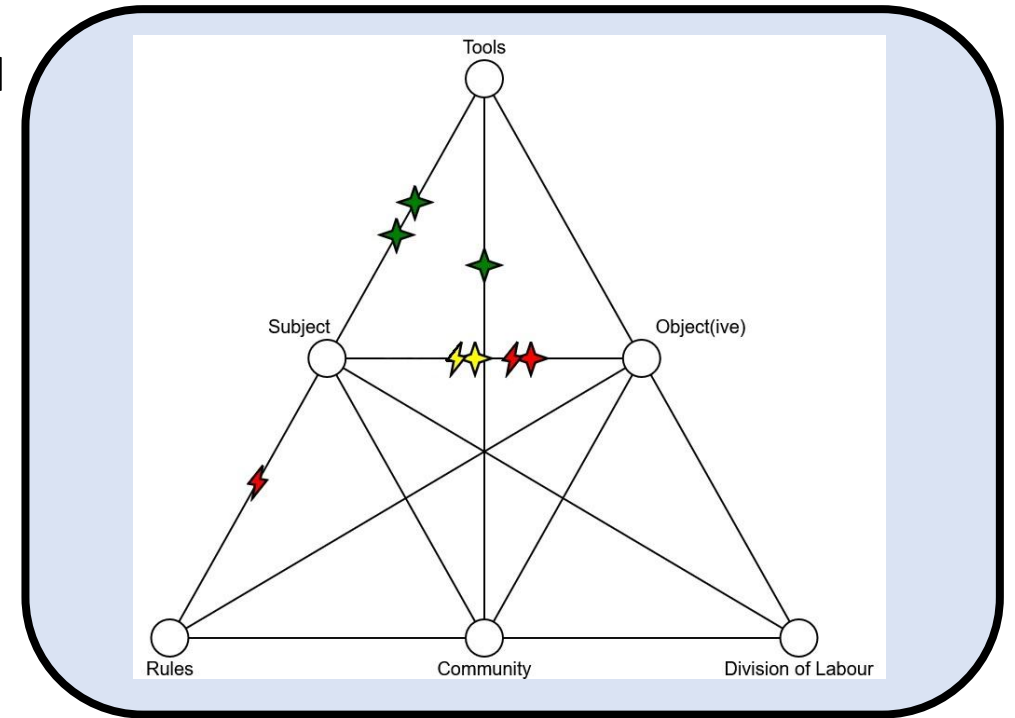
1) Answering questions

Implementation: artificial intelligence for identification

- Medical, nursing, and physiotherapy students work in groups of three through a simulated case, followed by a plenary debriefing



1) Answering questions



2) Debriefing with Dashboard

Implementation: dialogue

Discussing the answers assigned with AI to elements of the CHAT structure



Implementation: evaluation

Discussing the answers assigned with AI to elements of the CHAT structure



Post-event evaluation

- Three questions are insufficient to prompt in-depth reflection and dialogue.
- The examples were not always relevant to the students' own experiences.
- It would be helpful if a note-taker could take additional notes to supplement the AI-generated summary. Also audio recordings could be used for this purpose.
- The LLM-based classification could be further improved.

Further Development: the questions

- One prompting question for each element of an activity system
- Cognitive interviews were conducted with the intended end-users to improve the quality of the questions.
- The final version of the six questions was validated by respondents.

Validierung der Frage 1 zum Thema "Ziel"

Bitte stellen Sie sich bei der Validierung der folgenden Fragen vor, dass Sie gerade als Teil eines interprofessionellen Teams (bestehend aus Pflege, Medizin und Physiotherapie) an einer Simulation teilgenommen haben und gemeinsam für einen Patienten eine Behandlungsempfehlung formulieren mussten. Die dargestellten Fragen dienen der Reflexion der Simulation und Vorbereitung für ein folgendes Team-Debriefing.

Die Frage zu diesem Thema lautete
Wie würden Sie Ihr eigenes professionelles Ziel und das Teamziel der interprofessionellen Zusammenarbeit beschreiben?

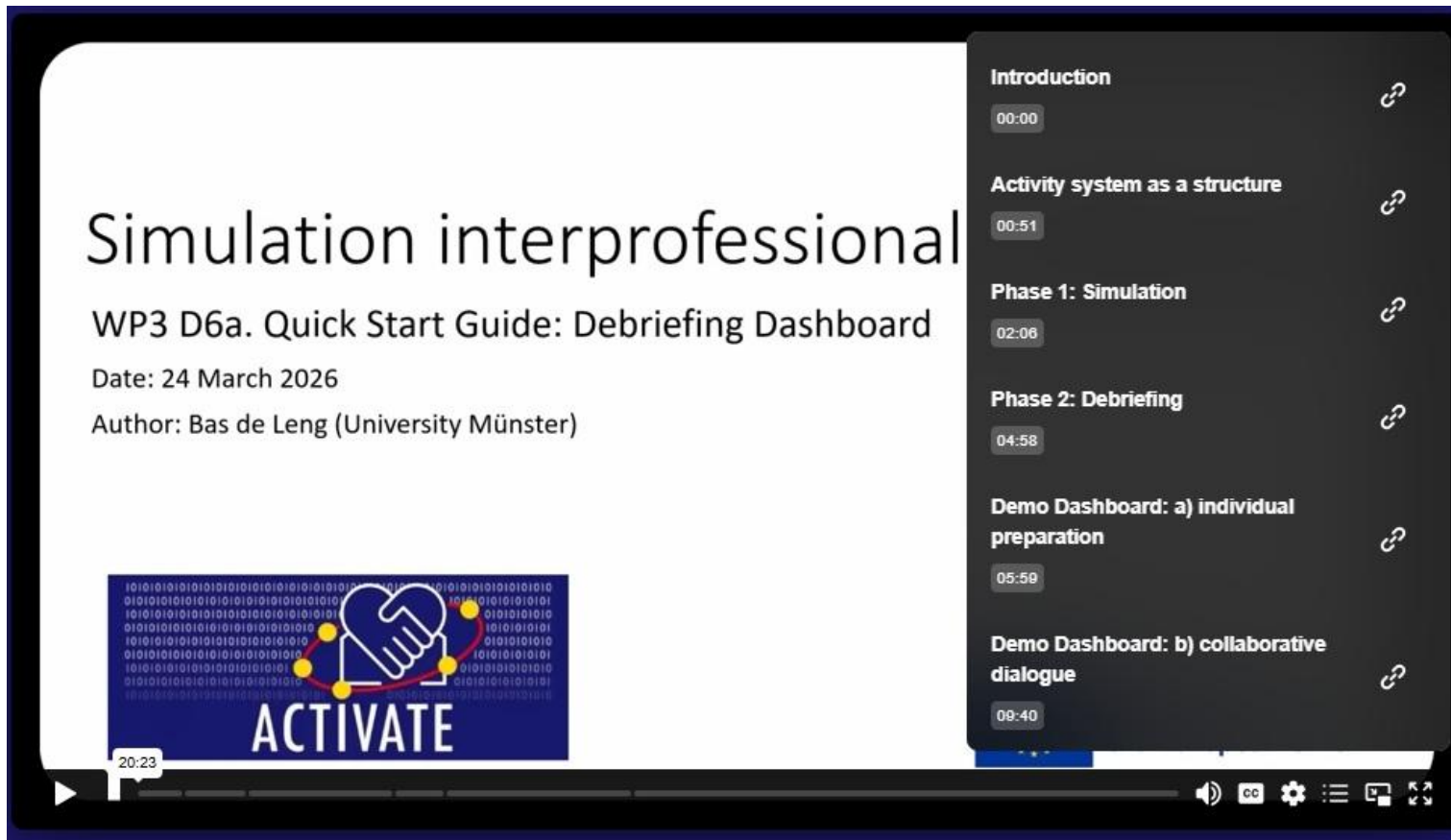
Die folgenden Aussagen sind auf einer Likert-Skala von 1 bis 5 zu bewerten.

	1 (stimme überhaupt nicht zu)	2	3	4	5 (stimme voll und ganz zu)	Keine Antwort
Die Begriffe und Konzepte in dieser Frage waren mir klar.	☐	☐	☐	☐	☐	☒
Diese Frage ließ sich nur auf eine Weise interpretieren.	☐	☐	☐	☐	☐	☒
Diese Frage bezieht sich auf etwas, das ich selbst erlebt oder beobachtet habe.	☐	☐	☐	☐	☐	☒
Die Formulierung der Frage erleichterte es mir, mich an relevante Erlebnisse zu erinnern.	☐	☐	☐	☐	☐	☒
Ich konnte diese Frage frei beantworten, ohne in eine bestimmte Richtung gelenkt zu werden.	☐	☐	☐	☐	☐	☒
Diese Frage betrifft einen Aspekt, der für meine (zukünftige) berufliche Rolle in der interprofessionellen Zusammenarbeit von Bedeutung ist.	☐	☐	☐	☐	☐	☒

Hier können Sie Ihre Bewertung begründen und/oder Verbesserungsvorschläge machen.

Further Development: the AI model & self-study material

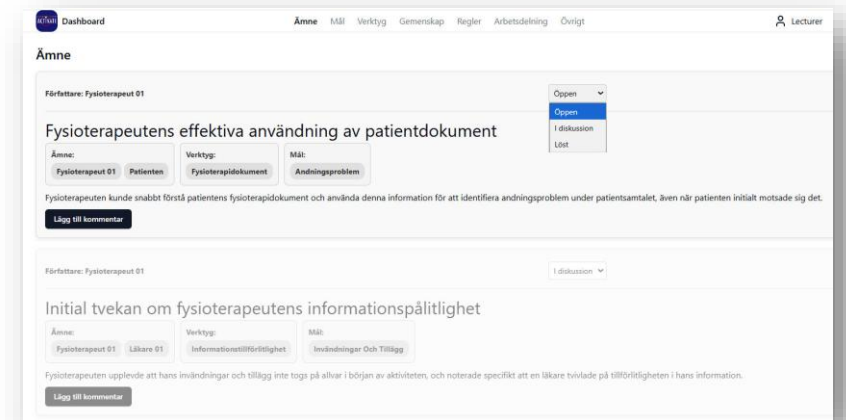
- To improve the AI model, dummy answers were generated from authentic information in descriptive articles.
- To improve prior knowledge, a video tutorial for self-study was created.



Implementation:

March 2026: Debriefing with 6 validated prompting questions in the Debriefing Dashboard

- Three groups of three students each (medical, nursing student, physiotherapy) worked through a simulated case in parallel, followed by a plenary debriefing.
- The six validated prompting questions were incorporated into the debriefing dashboard, which could be accessed via a QR code on a smartphone.
- The students were briefed in advance via a video tutorial on CHAT.
- Audio recording of the dialogue with automatic tone-text transcription was added.
- Additional notes can be added to the Debriefing dashboard.



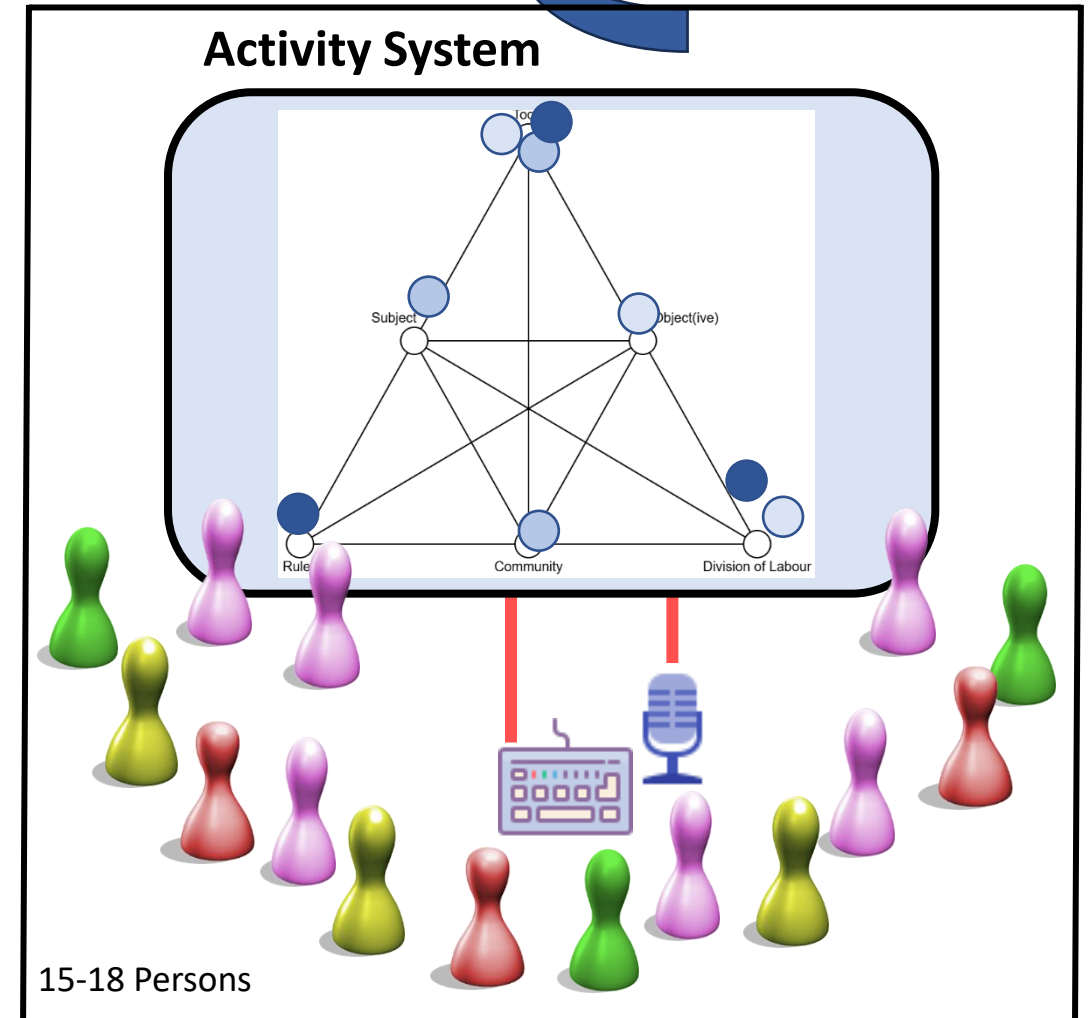
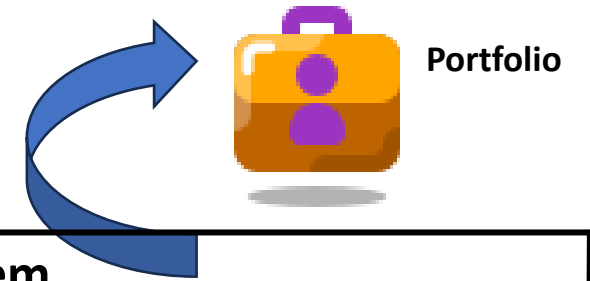
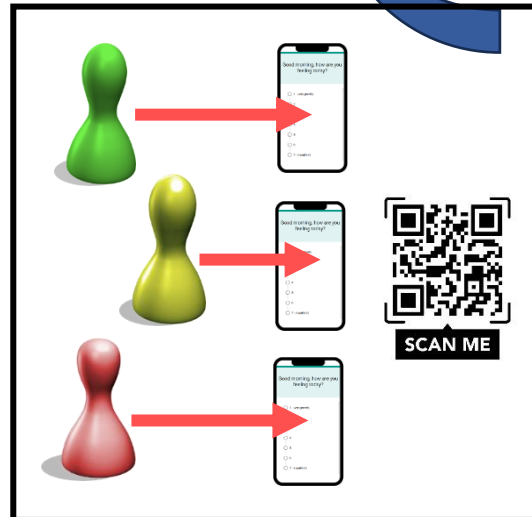
Implementation: tumor pain in prostate cancer

Simulation with 360° feedback (90 Min: 13.45 -15.15)



Debriefing (90 Min: 15.30 -17.00)

- 1 Personal reflection: answering 6 online questions (20 Min)
- 2 AI analysis and interpretation (10 Min)
- 3 Collaborative reflection: reflective dialogue (60 Min)



Literature

Engeström, Y., & Pyörälä, E. (2021). Using activity theory to transform medical work and learning. *Medical Teacher*, 43(1), 7–13.

Eppich, W. J., Hunt, E. A., Duval-Arnould, J. M., Siddall, V. J., & Cheng, A. (2015). Structuring Feedback and Debriefing to Achieve Mastery Learning Goals. *Academic Medicine*, 90(11), 1501-1508.

Leng, B. , Bernhardt, F. , Lenz, P. , Pawelka, F. and Schopf, J. (2025) Making the Key Elements of Palliative Care Practice Visible to Inform for the Development of Interprofessional Scenario-Based Simulations in Undergraduate Health Professions Education. *Creative Education*, 16 (6), 812-831

Tourangeau, R., Rips, L. J., & Rasinski, K. (2000). *The psychology of survey response*. Cambridge University Press.



Website: <https://medicampus.uni-muenster.de/ccel/projects/activate/>