This work is licensed under a Creative Commons Attribution 4.0 International License.
https://creativecommons.org/licenses/by/4.0/

INGENIUM
connect | share | learn

Staff Academy

Simulation Pedagogy for Paramedic Education, XAMK

Chieti-Pescara 19.-23.6.2023

Hannu Salonen, senior lecturer
Jarno Hämäläinen, senior lecturer

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Co-funded by the European Union

Simulation pedagogy for paramedic education, XAMK

What to expect from the session – main points

What is simulation pedagogy and why is it so important to set learning goals?

Simulation debriefing – Phase III: why is the debriefing process in the center role?

The Xamk model will be presented by using the simulation method and all participants (audience) take part in this session.

20min Phase I- Introduction

15min Phase II - Simulation scenario

10min Phase III - Debriefing session

15min Phase IV – Workshop (session) feedback

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Simulation pedagogy – **what and why?**

Key points:

by doing – ”hands on” / by seeing - observing / by listening, and discussion in the debriefing

Know the participants’ competence level	→	to succeed in setting learning goals
Realistic and safe atmosphere	→	a psychologically safe imitation of the reality
Motivated and to achieve a ‘flow’	→	to succeeded in the simulation exercise
Ensure effective learning	→	transfer effect
Management of non-technical skills	→	understand human factors
Simulation **KSAB**	→	**K**nowledge, **S**kills, **A**ttitude, **B**ehavior

Simulation-based learning can be thought of as “a circle of learning”

Experience, observation/reflection, generalization, experimentation”

(Dieckmann 2009, Kolb 1984)

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Patient safety - two approaches

Crisis Resource Management **CRM**

Anesthetists' Non-Technical Skills **ANTS**

CRM&ANTS framework can also be combined

Human factors are essential

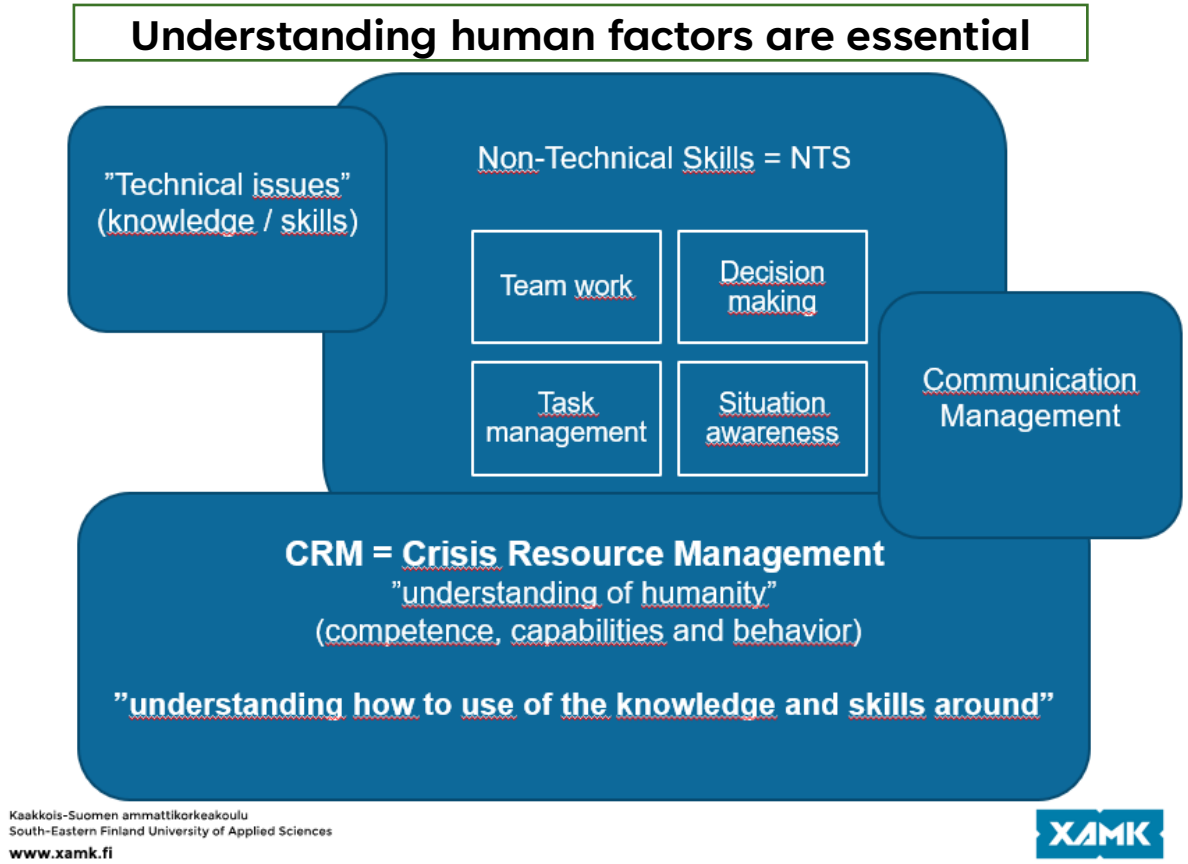
"Nurse, get on the internet, go to SURGERY.COM, scroll down and click on the 'Are you totally lost?' icon."

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Simulation pedagogy – **what and why?**

When you think of how to set a learning goals → the 'thing' comes first, what is most important to learn



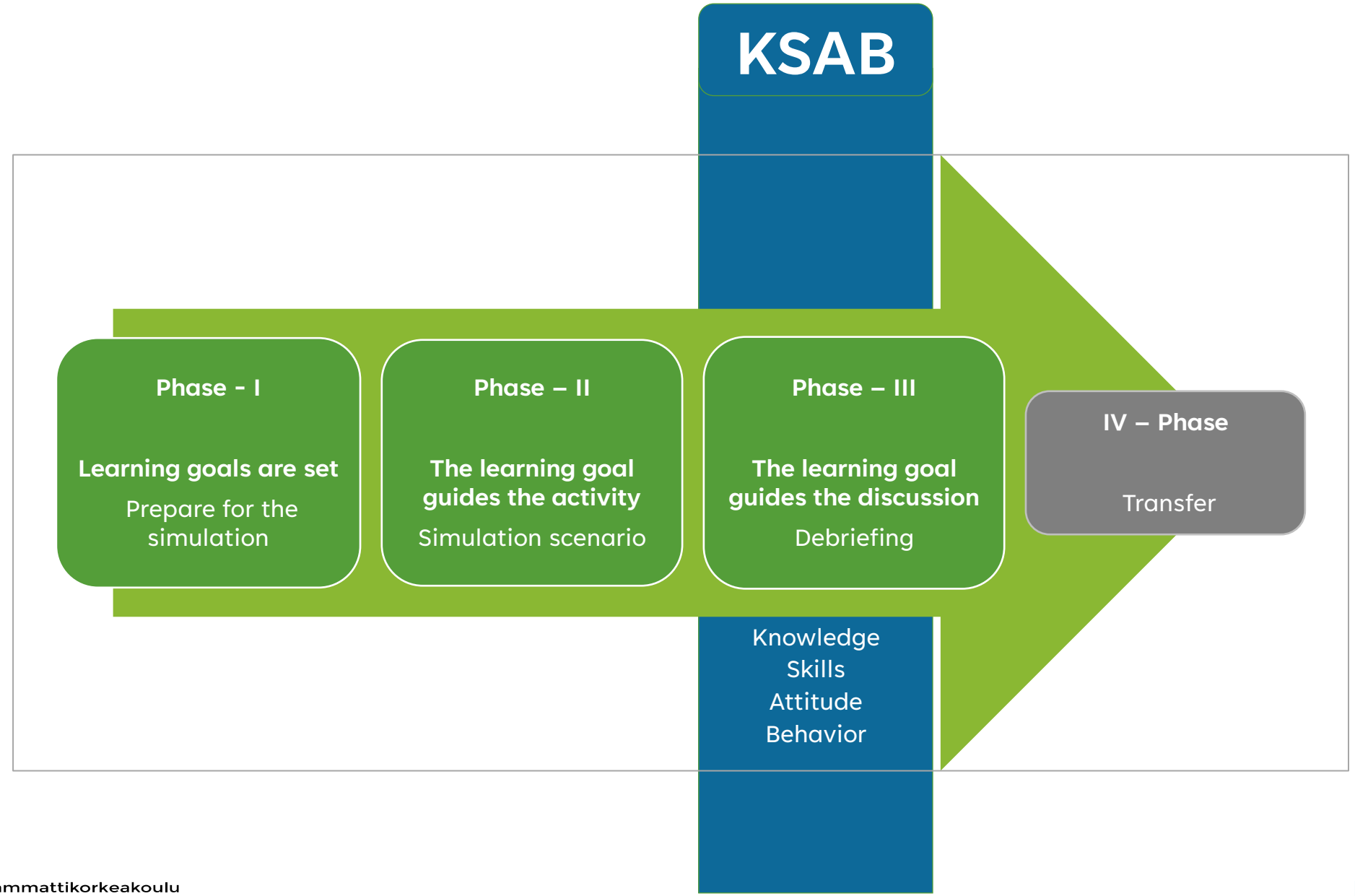
Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Skills - Knowledge – Context?

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042


KSAB
Phase - I
Learning goals are set
Prepare for the simulation
Phase – II
The learning goal guides the activity
Simulation scenario
Phase – III
The learning goal guides the discussion
Debriefing
IV – Phase
Transfer
Knowledge
Skills
Attitude
Behavior

Full scale simulation
Phase I

Introduction to the topic and participants prepare for the simulation

Before the simulation scenario

“the instructor must be aware of the level of the participants”

Learning goals are set

“make sure the students/participants succeed”

Today, it is situation awareness and task management

“try to create a ‘flow’ and remember to smile” ☺

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Full scale simulation
Phase I

Today learning goals are:

Situation awareness

Students assume various roles and gain **experience of the simulation**

Patient = Role, age, symptoms, pain? ets. (introduce later)
Paramedics = **Antti** and **Veera** (Aki) / level, where and when?

Audience / followers

Take a few second and imagine yourselves as a paramedic student

Your follow tasks are:

Situation awareness

Team work

Co-funded by the European Union
INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Full scale simulation
Phase I

We have a 50-year-old patient with chest pain and they called for help

Dispatch center sends an ambulance

The paramedics arrive and knock on the door

The simulation scenario starts when the paramedics arrive…

Co-funded by the European Union
INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Full scale simulation
Phase II

Paramedics arrive…

They should use a patient-safe systematic operating model

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Full scale simulation
Phase II

The first thing to do is to make an initial assessment **ABC – A**irway**, B**reathing and **C**irculation

If it's ok, they continue…

Then detailed (secondary) assessment **ABCDE** and the same time they also starts interview

→ lots of specific questions ☺

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Full scale simulation
Phase II

Paramedics prioritize important examination first…ECG

Then they collect all the data and information with teamwork

Using checklist = good teamwork

Closed loop communication → more situation awareness

Good situation awareness = makes the decision making process safer

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Full scale simulation
Phase II

.

“make sure that the facilitators direct the exercise according to the goal”

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Full scale simulation
Phase III

Debriefing

Simulation learning is concluded in a debriefing

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Full scale simulation
Phase III

Debriefing

…the most important component in the learning process

Phase I

Description phase

Phase II

Analysis phase

Phase III

Take home message

The discussion proceeds according to the learning goals

Participants should be able to evaluate their own actions and the actions of other participants

Remember - **non-judgmental atmosphere**

“the atmosphere should be **psychologically safe**”

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

The end ☺

The simulation teaching method is effective

Students' confidence in their own skills grows when using the method and decision-making and critical thinking improves

Students also feel that the simulation method is an inspiring teaching method of high quality

Simulations are a good way of ensuring competence.

"Simulation is more than technology"

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Simulation pedagogy – **what and why?**

Simulation pedagogy **- Feedback** from the participants

Why it is so important to get feedback from the participants?

So that we can perform better in the next session

We become familiar with the students' level of skills

We are able to set the goals for our next simulations more accurately

Co-funded by the European Union
INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Feedback

Any questions?

Hannu Salonen
Jarno Hämäläinen

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042

Typical model for XAMK simulation feedback

Teachers (3) and students 25 are divided in three individual smaller groups

Each teacher leads their own simulation scenario → typically three different simulation scenarios during the day

Feedback (feelings) before the practice day –all participants

During the simulation scenario – the instructor/teacher collects **feedback** (evaluation)

Simulation debriefing -> participants' **feedback**

After simulation – all group together - **feedback**

And the end of the simulation day – teachers discuss and analyse **feedback** together

Co-funded by the European Union

INGENIUM Alliance of European Universities - ERASMUS-EDU-2022-EUR-UNIV-2 | Project number: 101090042