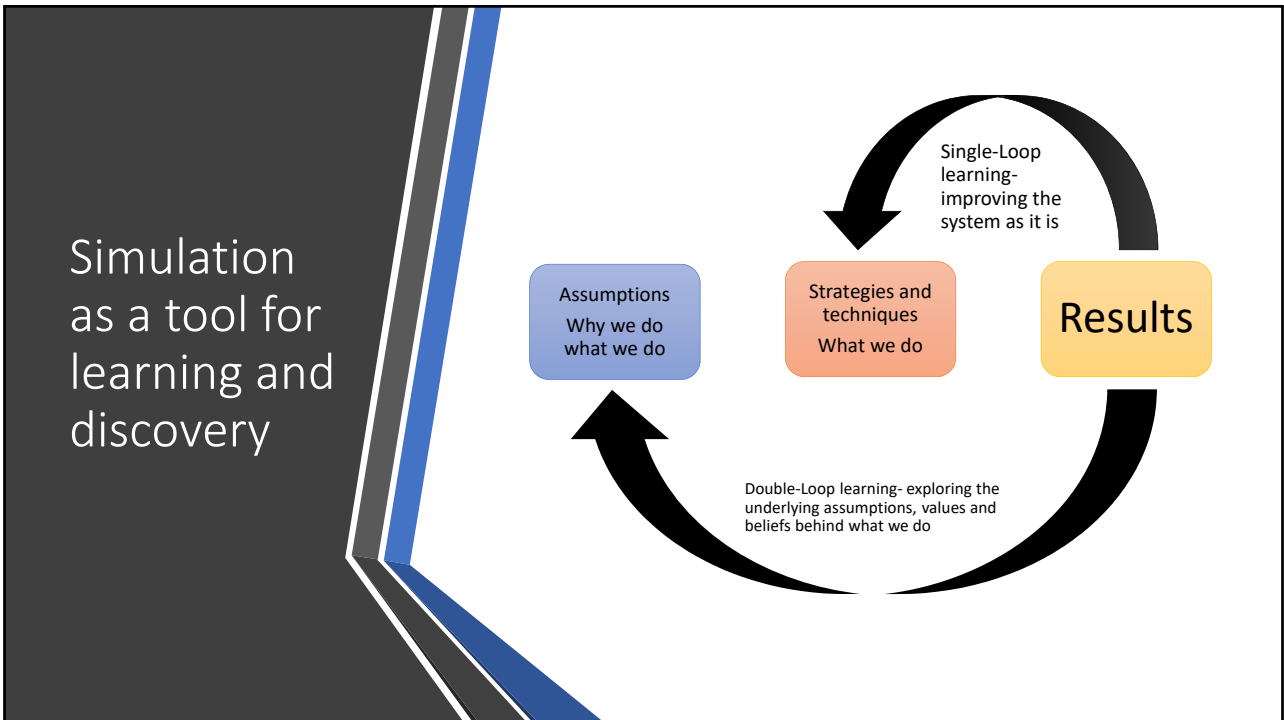




Gaming and simulation as tools for system exploration and learning

Workshop
Microsystem festival
Jönköping 2020



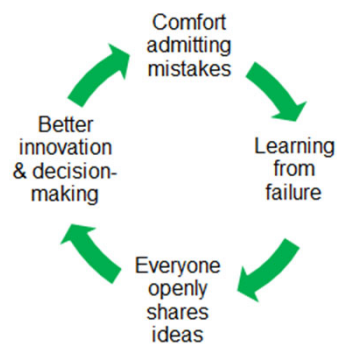
What kind of learning experience would you like to design?

Discuss with your neighbour..


Psychological Danger




Psychological Safety



Creating preconditions for learning



How do you create a safe environment for learning in your setting?



Universal structure

- Introduction- relevance, meaning, ground rules
- Content- transparent learning goals, alignment of method and purpose, keep the time
- Summary and evaluation- link to learning outcomes


Trained facilitators

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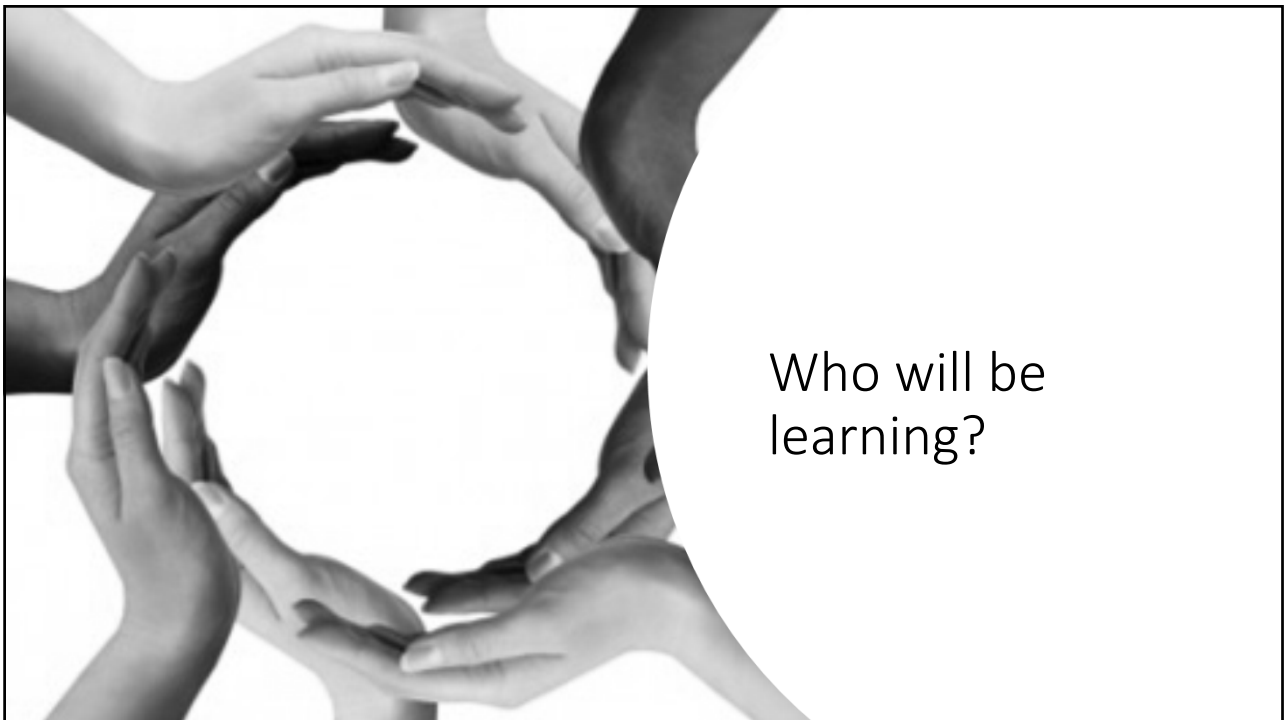
How do you design a good learning experience?

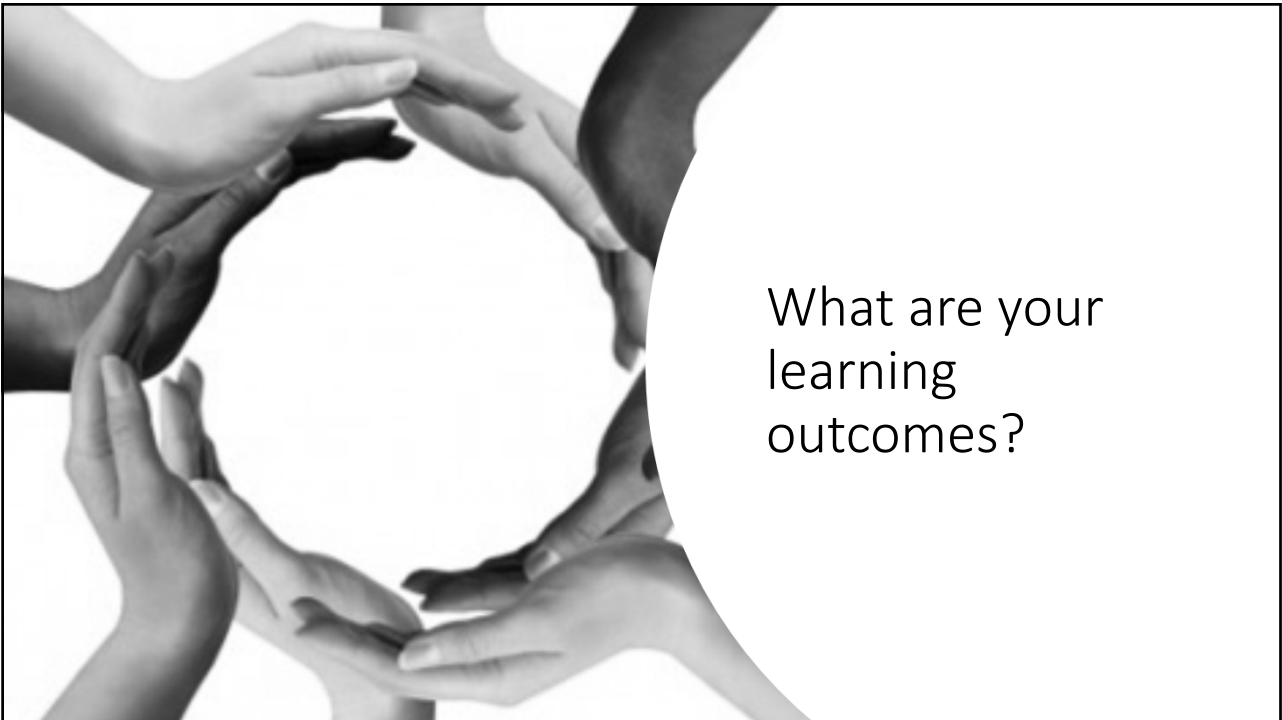
- Needs analysis
- Target group
- Learning outcomes

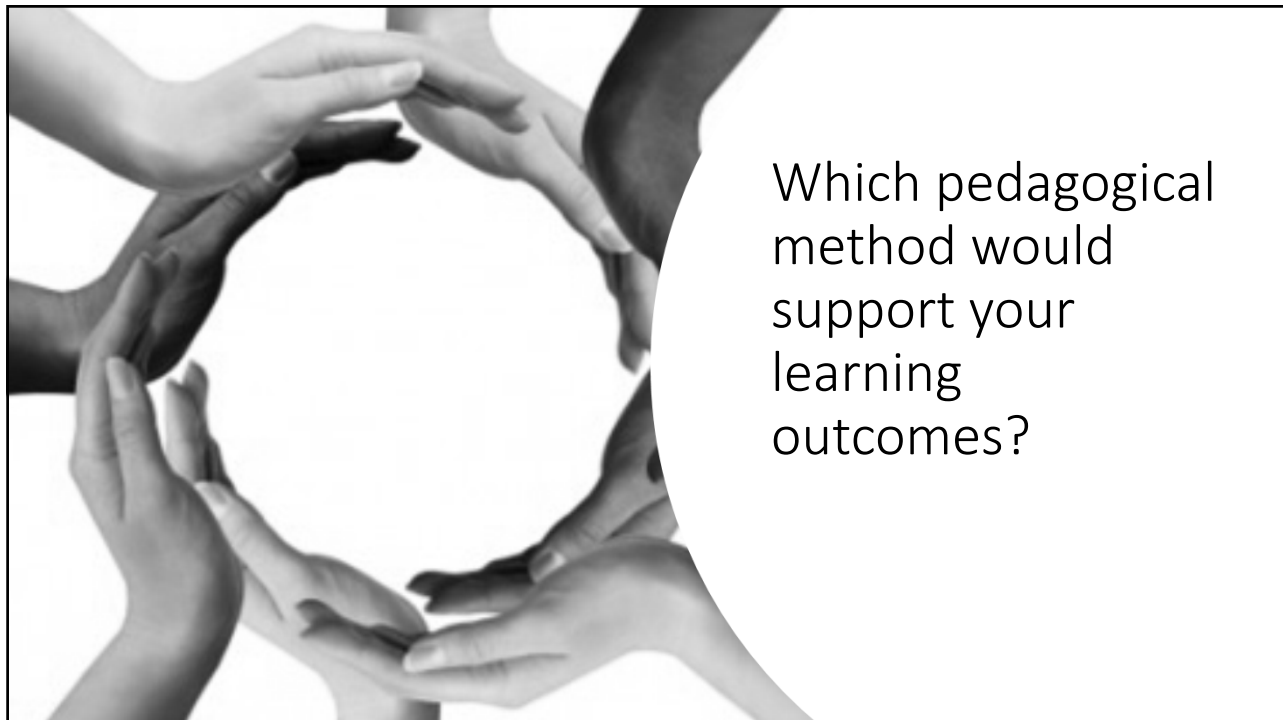
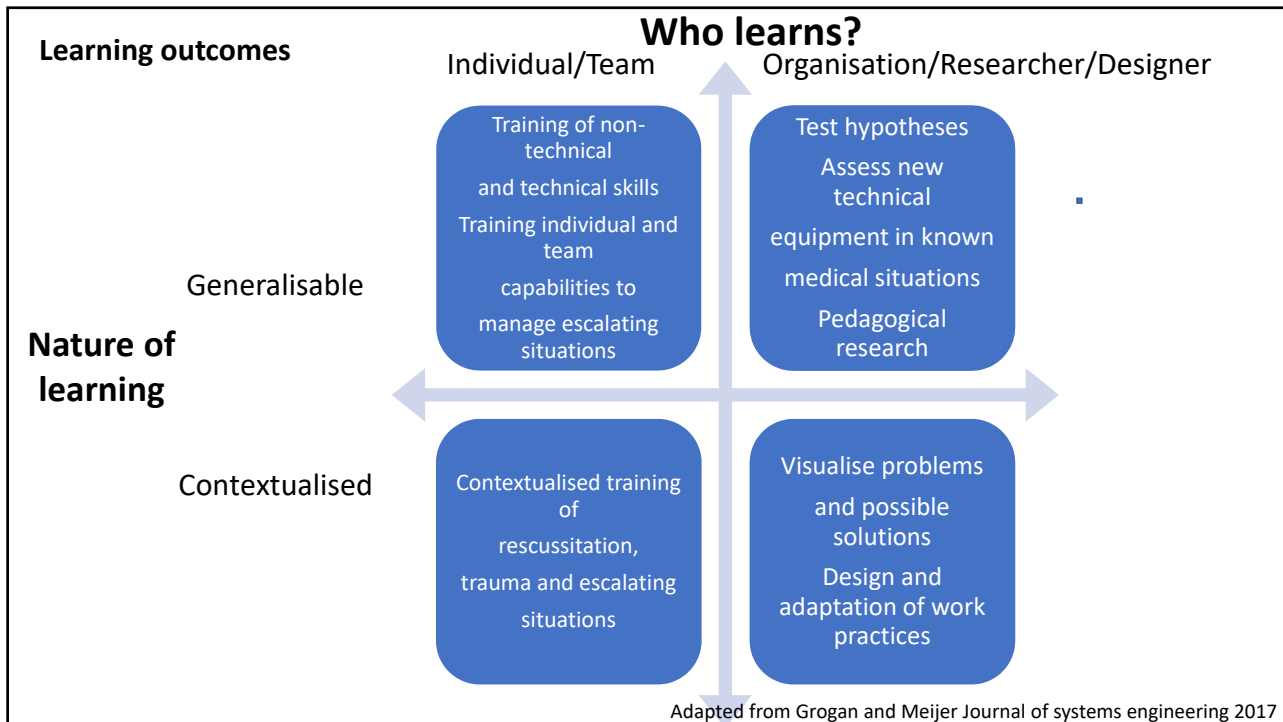
- Pedagogy-
Methods
- Learning styles
- Universal structure
- Evaluation



How do you know what learning needs are present in your organization?

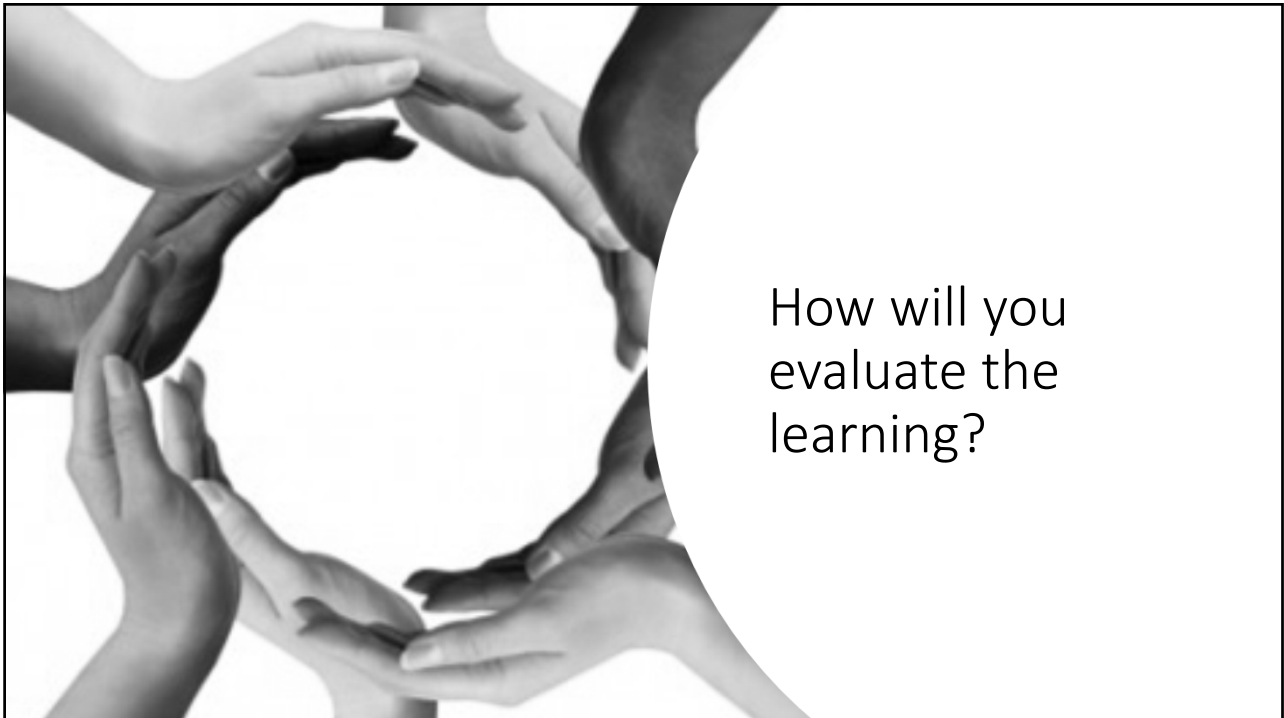






Choosing pedagogical methods

- Lecture
- Skills training
- Groupdiscussion/Workshop
- Simulation
- Serious game



How will you evaluate the learning?

Results:

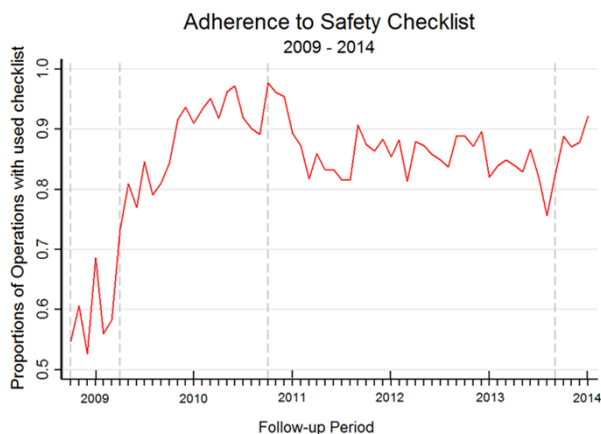


Fig 2: Adherence data on WHO checklist august 2009-september 2014. Dashed lines; baseline, first, second and third follow-up, retrospectively. Trend of adherence differ significantly over years (Chi2 for trend =19.749, $p < 0.0000$) but differ significantly over months for the year 2010 (Chi2 for trend = 33.563, $p < 0.0000$).

- MedPACT: 25 items linked to checklist performance and teamwork behaviours
- One subjective score of team performance

Baseline	June-July 2009	23 observations
First follow-up	Mars-April 2010	21 observations
Second follow-up	Sept-oktober 2011	27 observations
Third follow-up	Augusti-september 2014	20 observations

Results:
Observations
of teamwork
using
MedPACT

Teamwork competency	Mean of score	df	F	P Value
Communication	18.9	3, 84	26.89	.0001
Leadership	8.4	3, 84	11.16	.0001
Mutual support	2.5	3, 84	9.03	.0001
Situation monitoring	7.8	3, 84	24.80	.0001
WHO-checklist competencies				
Team formation	6.9	3,84	16.96	.0001
Pre-op huddle (Time-Out)	8.9	3, 84	12.26	.0001
Post-op huddle (Closing)	8.6	3, 84	21.80	.0001

Table 2 one-way ANOVA results for changes over time in team competencies

Results:
Safety
culture
assessments

	UNITS	OR 2yrs	ALB tot	Karolinska without ALB
Dimensions	mean difference		Mean Difference	Mean Difference
Self-assessed safety level	0,02		0,06	-0,05*
Communication openness	0,14		-0,08*	-0,13*
Feedback and communication about AEs	0,05		-0,01	-0,17*
Frequency of reporting	-0,03		0,03	-0,05*
Handoffs and transfers of patients	0,20		0,09*	0,05*
Management support for patient safety	0,17		0,15*	-0,07*
Non punitive response to errors	0,31*		0,23*	0,04
Learning organization	-0,09		0,12*	-0,01
Overall safety perception	0,21		0,10*	-0,09*
Workload and staffing	0,16		-0,07	-0,20*
Supervisors expectations and actions	0,27*		0,23*	0,12*
Teamwork across units	0,32*		0,13*	0,05*
Teamwork within units	0,23*		0,07*	0,00

THANK
YOU
AND
SEE YOU
LATER

Karin.pukk-
harenstam@sll.se