

Midwives and competency development

A lifelong workplace learning journey!



Umeå
Mieke Embo
8th May 2015

Overview

1. **Context:** Belgium – Midwifery - Education
2. **Concept** Workplace Learning
3. **Continuous learning** in midwifery education

Concept continuous learning

Problems

Aim

Research questions

Methods

Results (Embo's Workplace Learning Model)

Conclusion

4. **Questions**

1. Context: Belgium – Midwifery - Education



Belgium



Europe: Belgium - Sweden

EUROPE	HABITANTS (x 1000)	%	SURFACE (km ² x 1000)	%	BNP Miljard dollar	%
TOTAL	511 763		4 482,1		18 131,7	
BELGIUM	10 449	2 %	30,5	0,7 %	467,1	2,6 %
SWEDEN	9 724	1,9 %	450,3	10,0 %	434,2	2,4 %

Belgium: Federal state

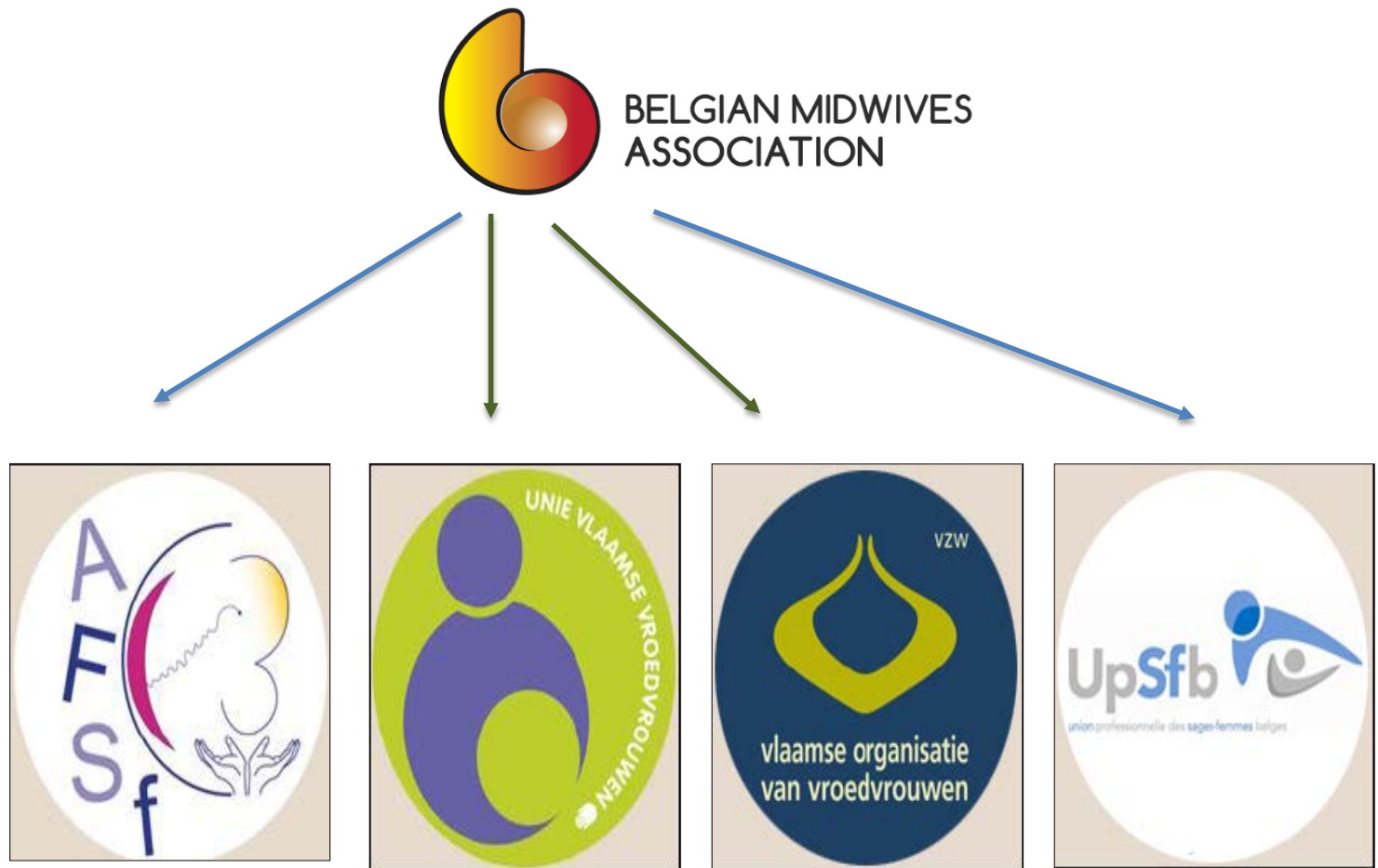


3 official languages: Dutch, French, German

Federal state: Everything connected with public interest
1 Minister of health

Community: Everything related to culture in the broad sense
2 Ministers of Education

Midwifery



Midwifery care

Belgium

- +/- 10 000 midwives (no official registration)
- +/- 100 000 births in Belgium
- +/- 1% home births in Belgium
- Minority of midwives works independent
- Gynaecologist – Midwife
- 4,5 days in maternity ward after birth

Flanders 2013

- 66 197 births
- 23,9 % induction
- 70,3 % epidural anesthesia
- 20,3 % caesarean section

Midwifery Education

Flanders

- Three-year undergraduate programme (180 ECTS)
- Competency Framework with 11 Learning Outcomes
- Direct entry
- Entry requirement: secondary school
- 11 schools – free choice

Ghent

- Modular and Competency based curriculum
- Experiential workplace learning
- EU-directives

Midwifery Workplace Learning Ghent



Midwifery Workplace Learning Ghent

MIDWIFERY SETTINGS	ECTS		
	Year 1	Year 2	Year 3
MATERNITY WARD	6		6
DELIVERY WARD	6	12	12
GYNAECOLOGY		6	18
NEONATAL CARE			
MIDWIFERY IN THE FIRST ECHELON			
MINOR: CHOICE			
TOTAL ECTS/ YEAR	12	18	36
TOTAL ECTS	66 /180		

6 ECTS = 4 weeks or 132 workplace learning hours

2. Concept: Workplace Learning



Concept Workplace Learning



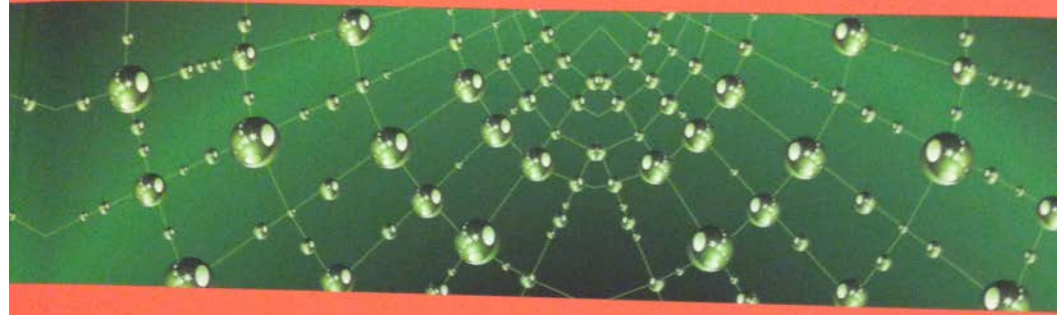
Study type which involves the acquisition of knowledge, skills and **attitudes** through carrying out **tasks** – and reflecting on tasks **and competency growth** – in a vocational **context**.

(Embo, 2015)

Concept

WORK PLACE LEARNING

The SAGE Handbook of Workplace Learning



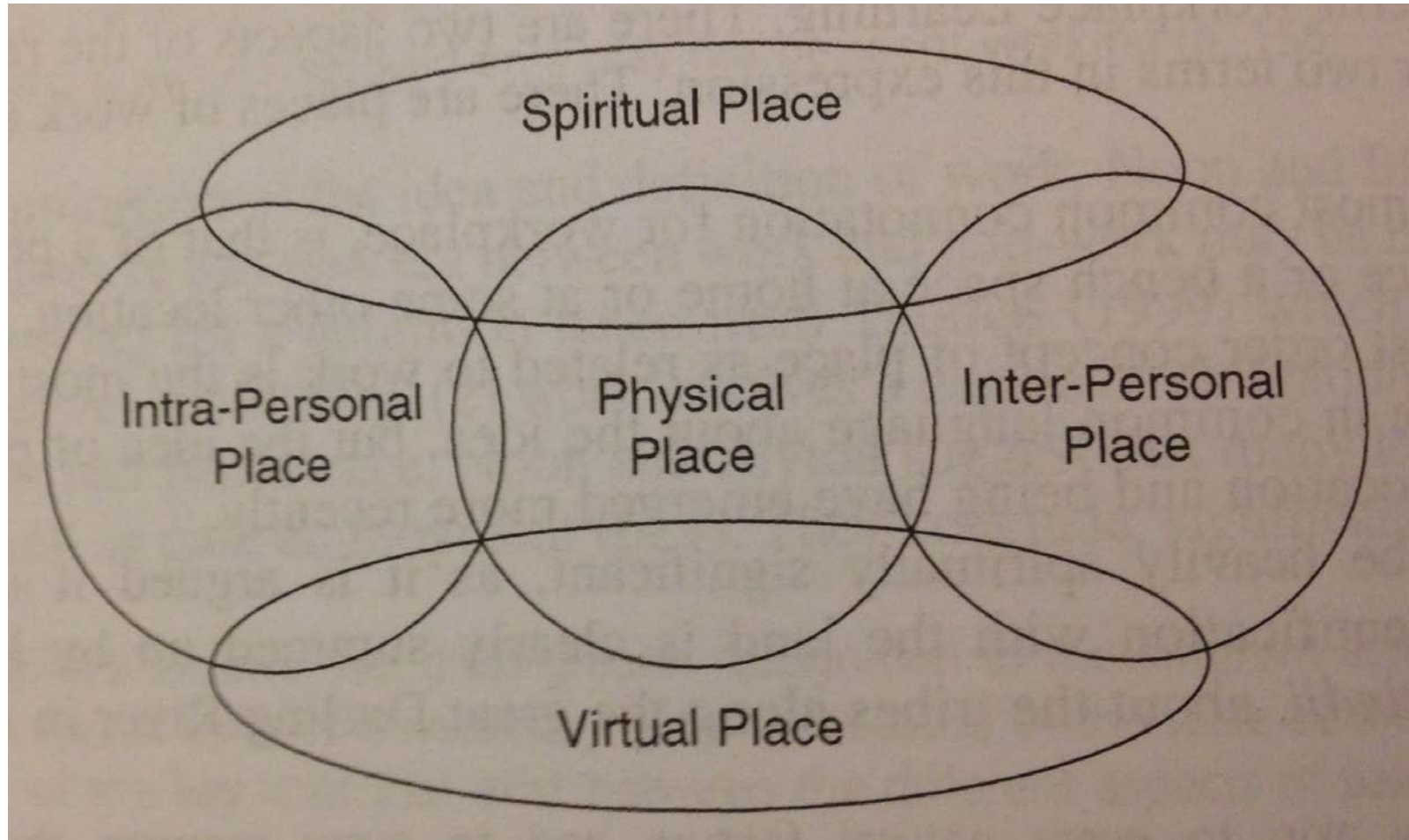
Edited by
Margaret Malloch, Len Cairns
Karen Evans and Bridget N. O'Connor

WORK

Work is an activity where individuals alone and together participate in productive endeavours to complete tasks **and** to achieve **midwifery** outcomes which are either self set **and** set by others and which **must be** remunerated.

(Cairns and Malloch, 2006) – (Embo, 2015)

PLACE



LEARNING

Learning is a process of **change** in an individual or group through activity. It is temporal and mindful.

(Cairns and Malloch, 2013)

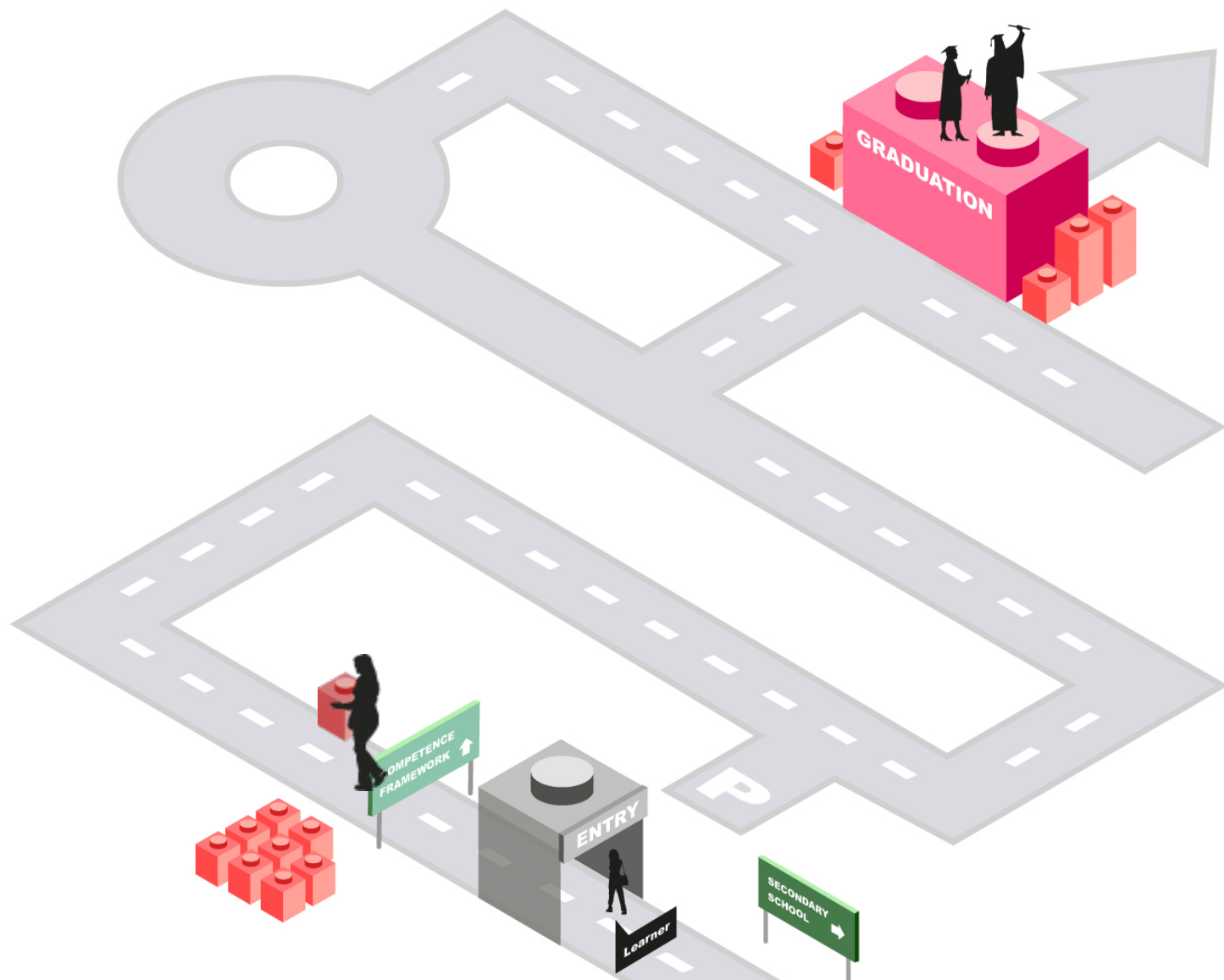
LEARNING THEORIES

- Behaviorisme
- Cognitivisme
- Constructivisme
- Socio-culturele leertheorieën (COP)
-

3. Continuous Workplace Learning

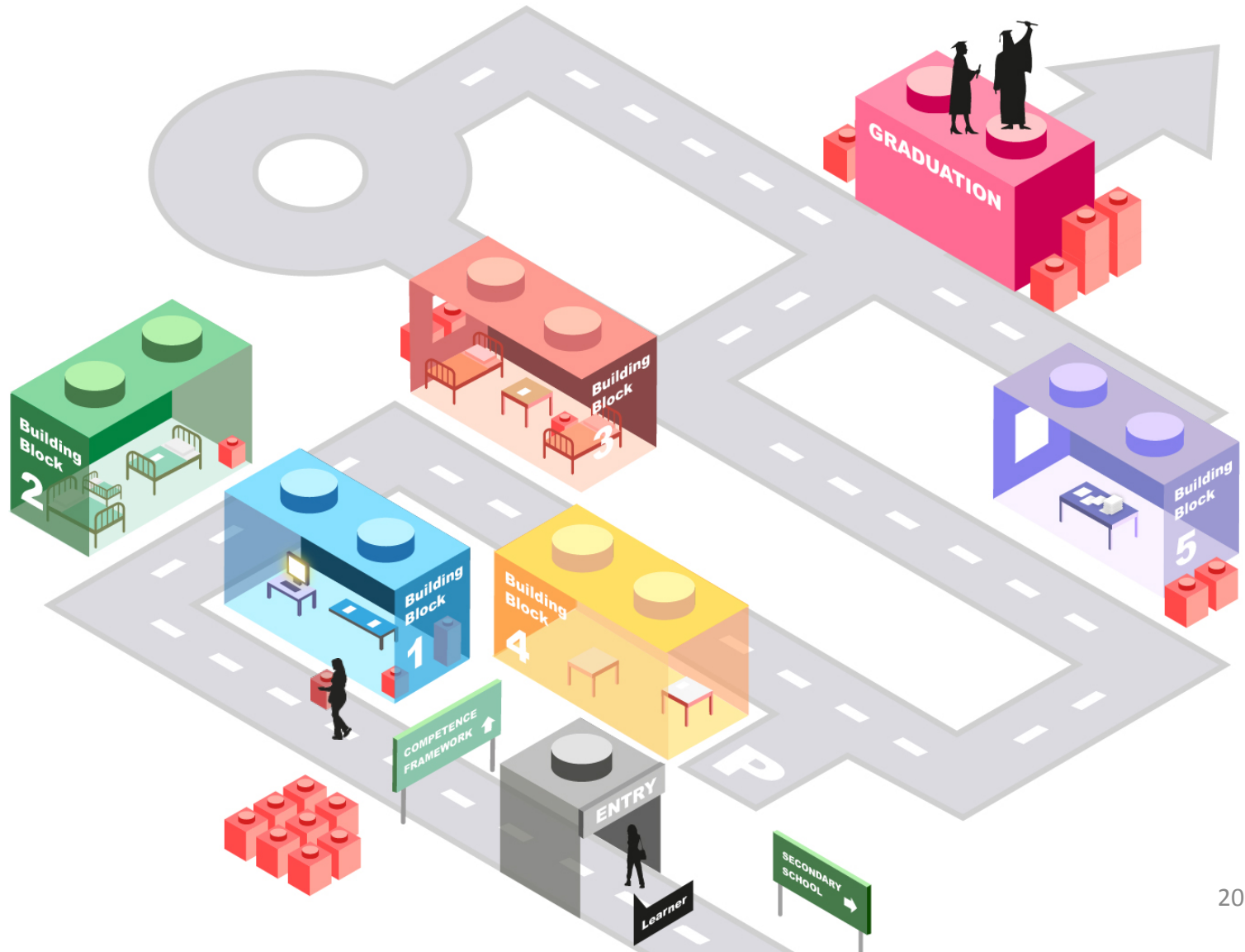


Workplace learning is a **continuous and self-regulated** process of personal and professional development (*Malloch et al., 2013*)

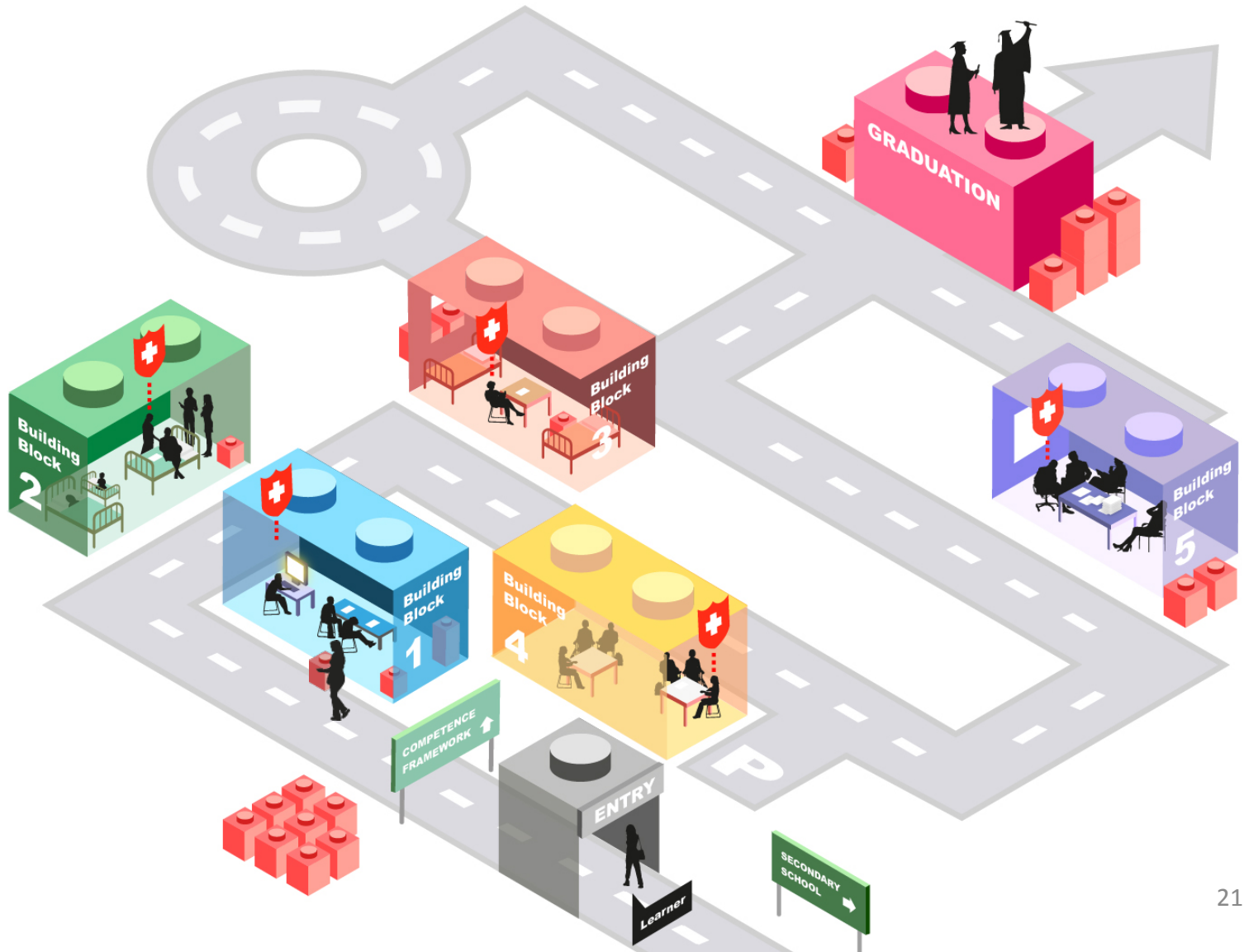


Problem: COMPLEXITY and DISCONTINUITY

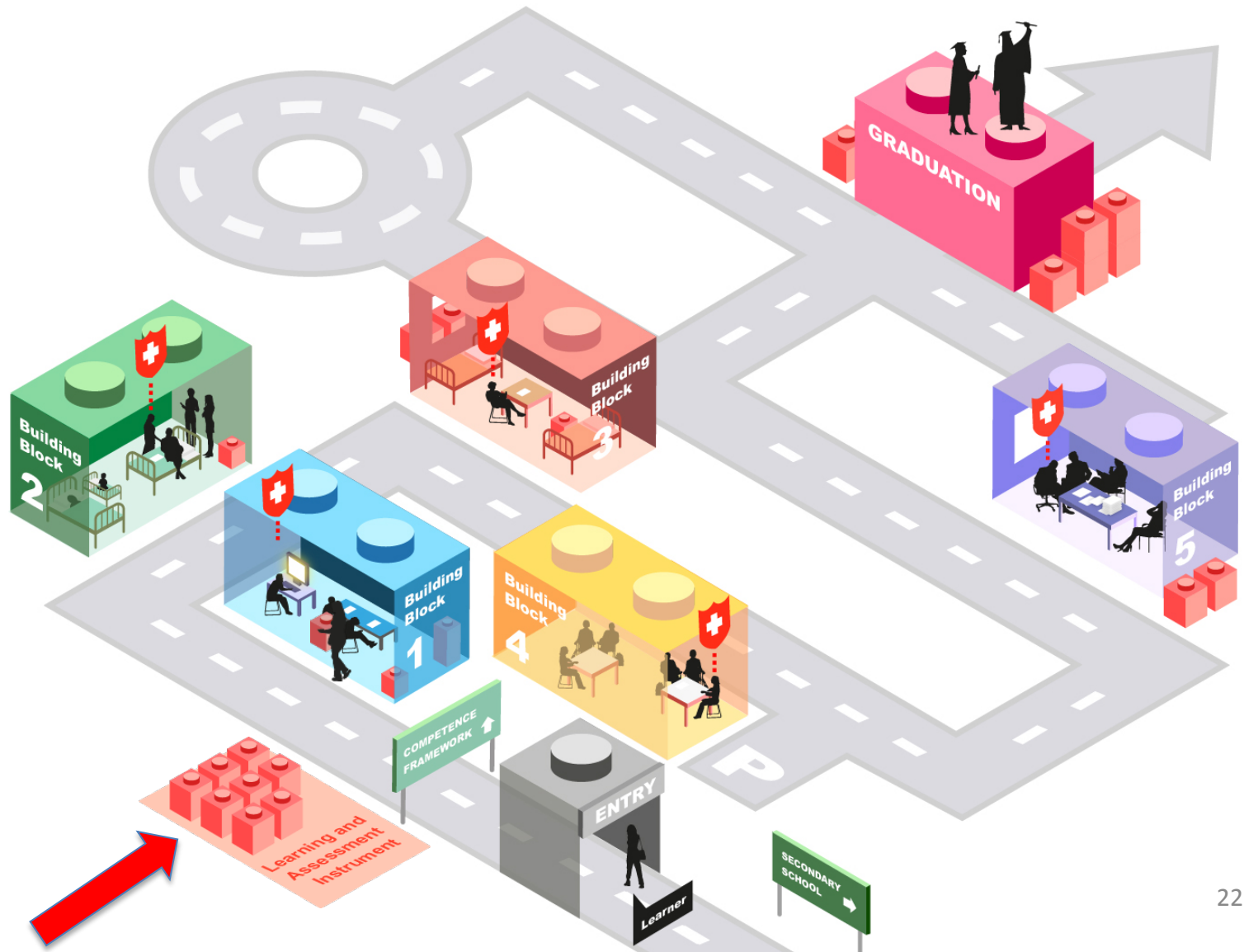
Discontinuous educational programmes (Ellaway et al., 2013)



Problem: Discontinuous supervision (Sundler et al., 2014)



PROBLEM: Discontinuity between learning and assessment (Dannefer, 2013)



Aim

Investigating

how the **development**

of a **continuous** and **self-directed learning process**

in a **discontinuous** and **complex** workplace learning environment

can be organised

Research questions

How can learning, assessment and supervision be **integrated**?



What are the implications for the **learning design** ?



What is the effect on **summative assessment**?

Research design

Four studies with

students, graduates and supervisors from the
3-year Midwifery bachelor programme in Ghent

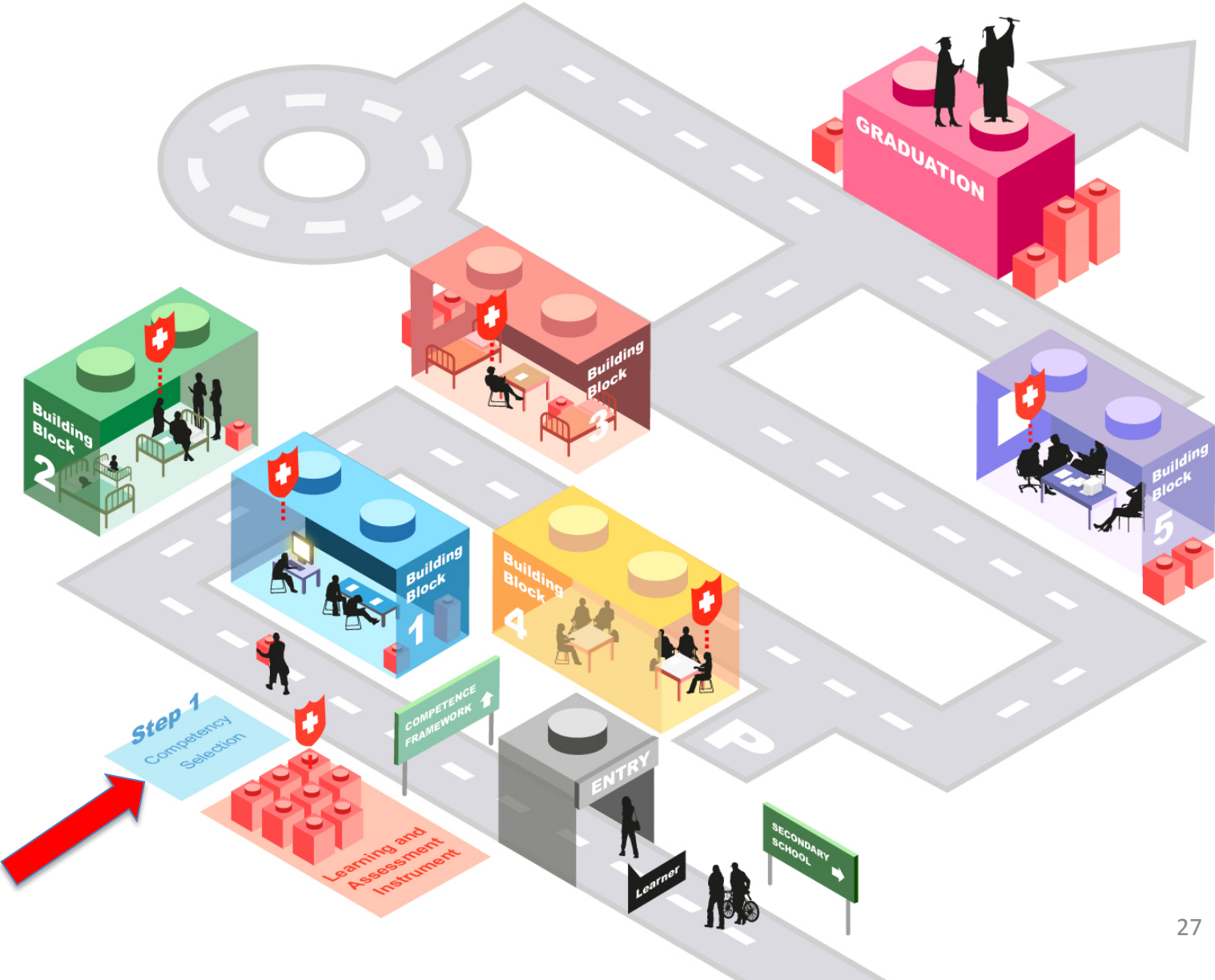


Theoretical paper with the design of a new
workplace learning model

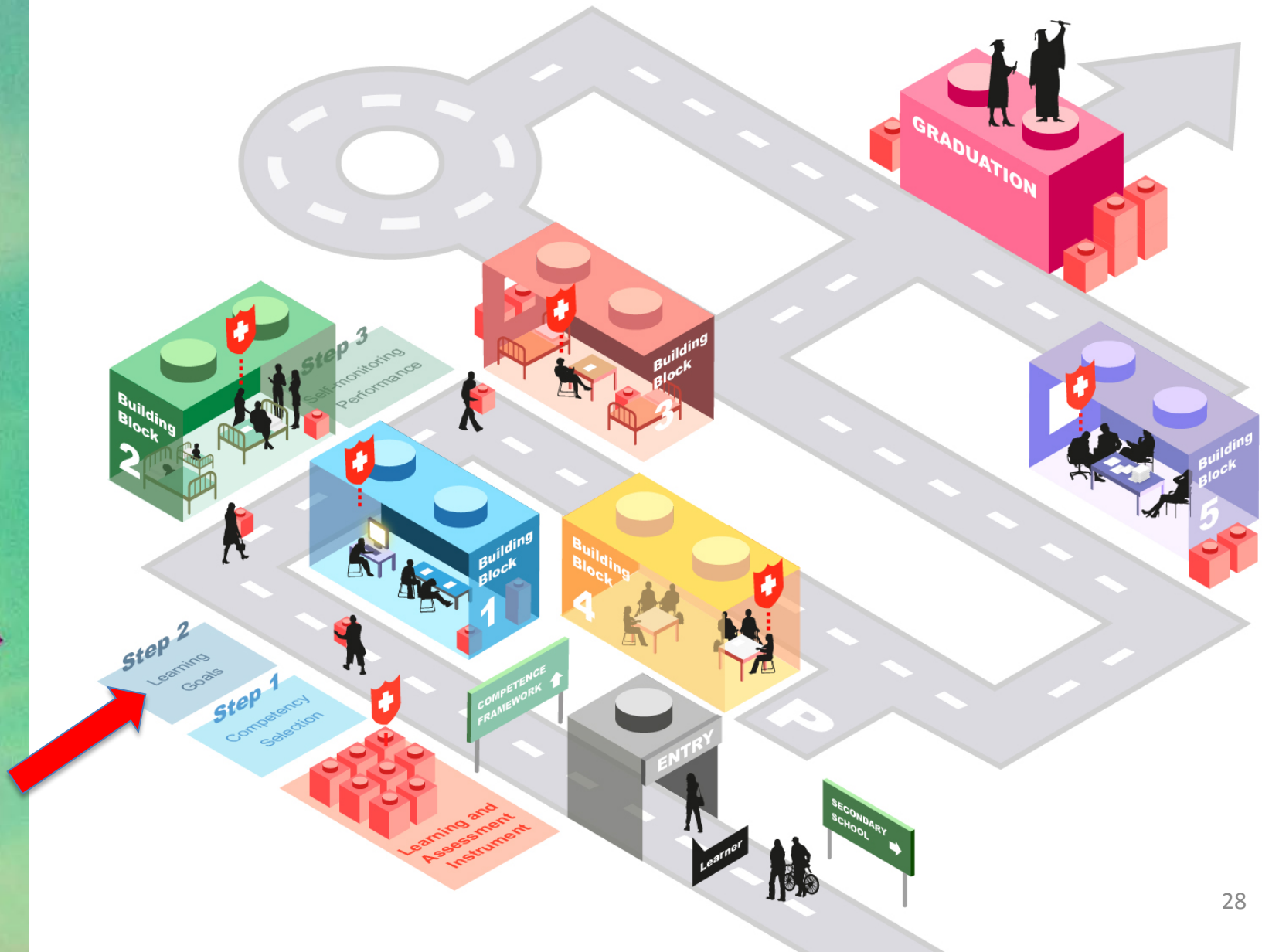


Embo et al. Integrating Learning, Assessment and supervision in a competency framework education. *Nurse Education Today* 2014; <http://dx.doi.org/10.1016/j.nedt.2014.11.022>

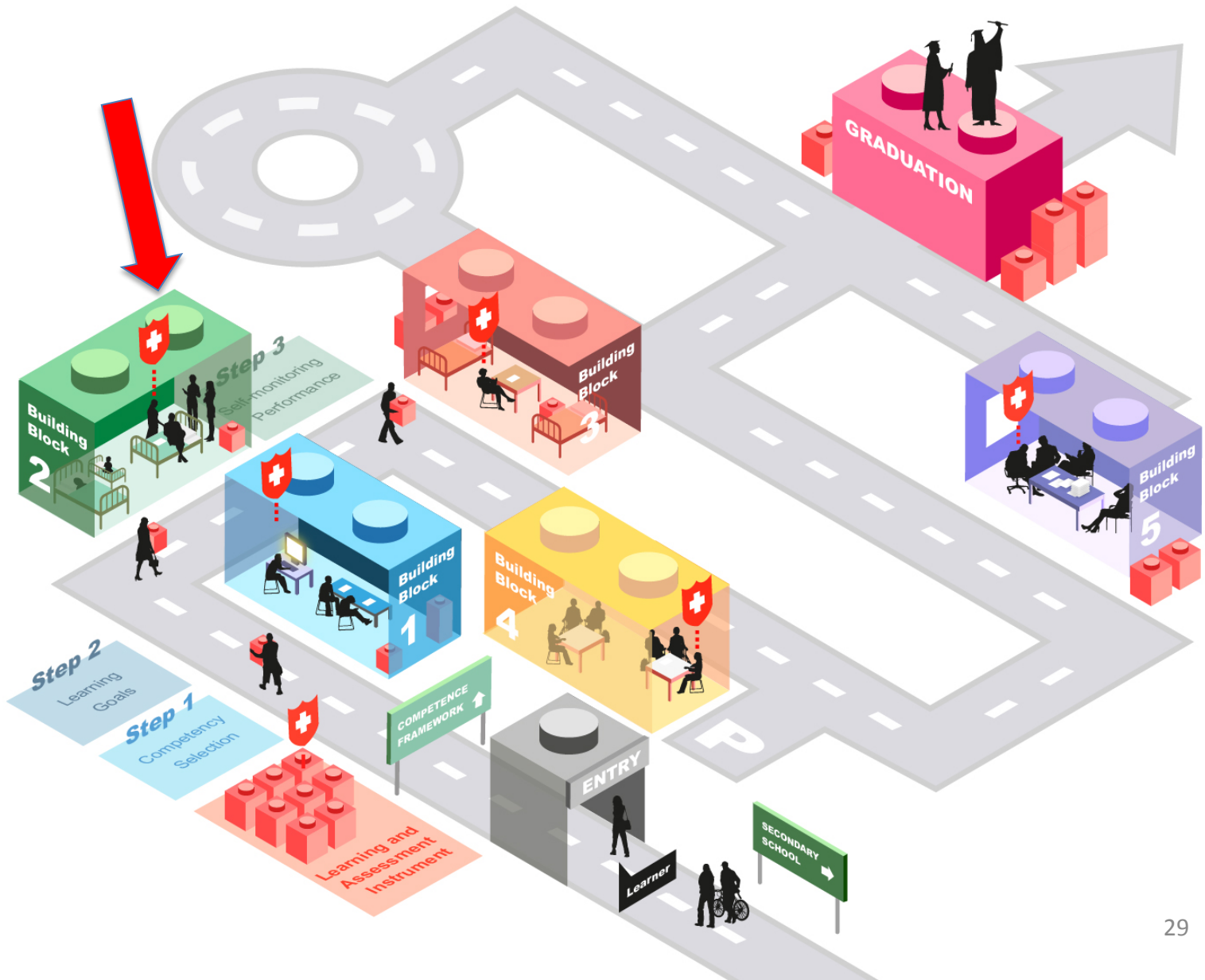
STEP 1: Competency selection



STEP 2: defining learning goals

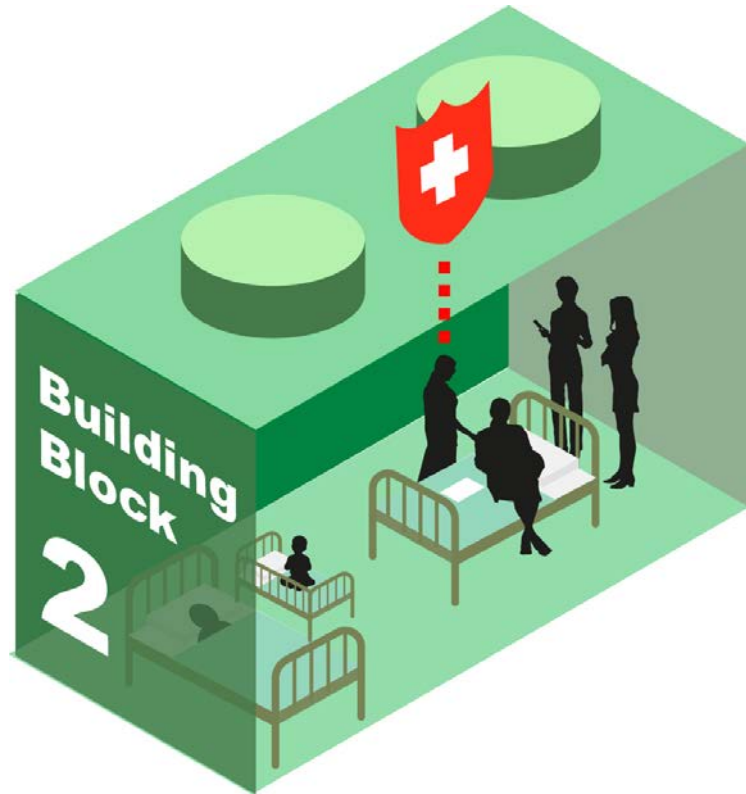


STEP 3: self-monitoring performance



STUDY 1 & 2

Selfmonitoring: reflection on actions (*Eva & Regehr, 2005*)

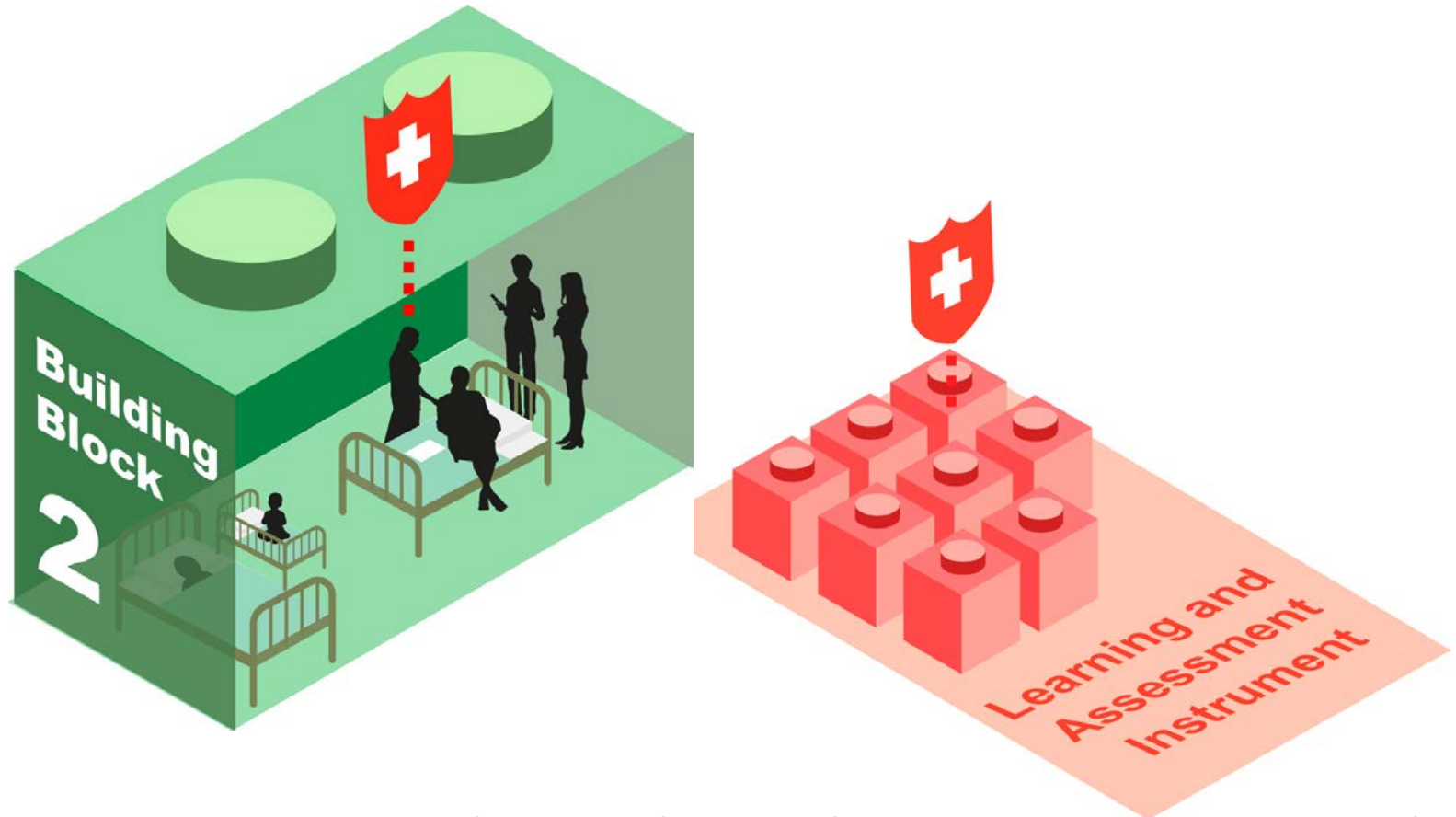


Embo et al. Assessment and feedback to facilitate self-directed learning in clinical practice of Midwifery Students. *Med Teach* 2010;32(7):e263-269.

Embo et al. A framework to facilitate self-directed learning, assessment and supervision in midwifery practice: A qualitative study of supervisors' perceptions. *Nurse Educ Pract* 2014;14(4):441-446.

STUDY 1 & 2

Effect of an integrated learning- and assessment instrument on daily practice



Embo et al. Assessment and feedback to facilitate self-directed learning in clinical practice of Midwifery Students. *Med Teach* 2010;32(7):e263-269.

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RESULTS STUDY 1

Students' perceptions

Effect integration

RESULTS STUDY 2

Supervisors' perceptions

Effect integration

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Supports **active** learning

Reflection & feedback **information**

Checklist is a '**quick scan**' to facilitate learning and assessment

RESULTS STUDY 2

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Supports **active** learning
Reflection & feedback is information
Checklist is a '**quick scan**' to
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RESULTS STUDY 2

Supervisors' perceptions

Effect integration

Student-centred supervision
Information is **memory support**
Checklist visualises **growth** and
makes **outcomes** explicit

RESULTS STUDY 1

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Supports **active** learning
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Checklist is a '**quick scan**' to
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Summative assessment: **score** ?

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Summative assessment: **role** ?

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Summative assessment: **score** ?

Barriers

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RESULTS STUDY 2

Supervisors' perceptions

Effect integration

Student-centred supervision
Information is **memory**

support

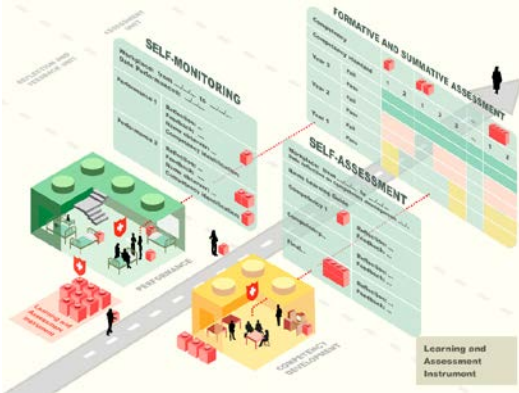
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Summative assessment: **role**?

Barriers

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Essential underlying educational conditions

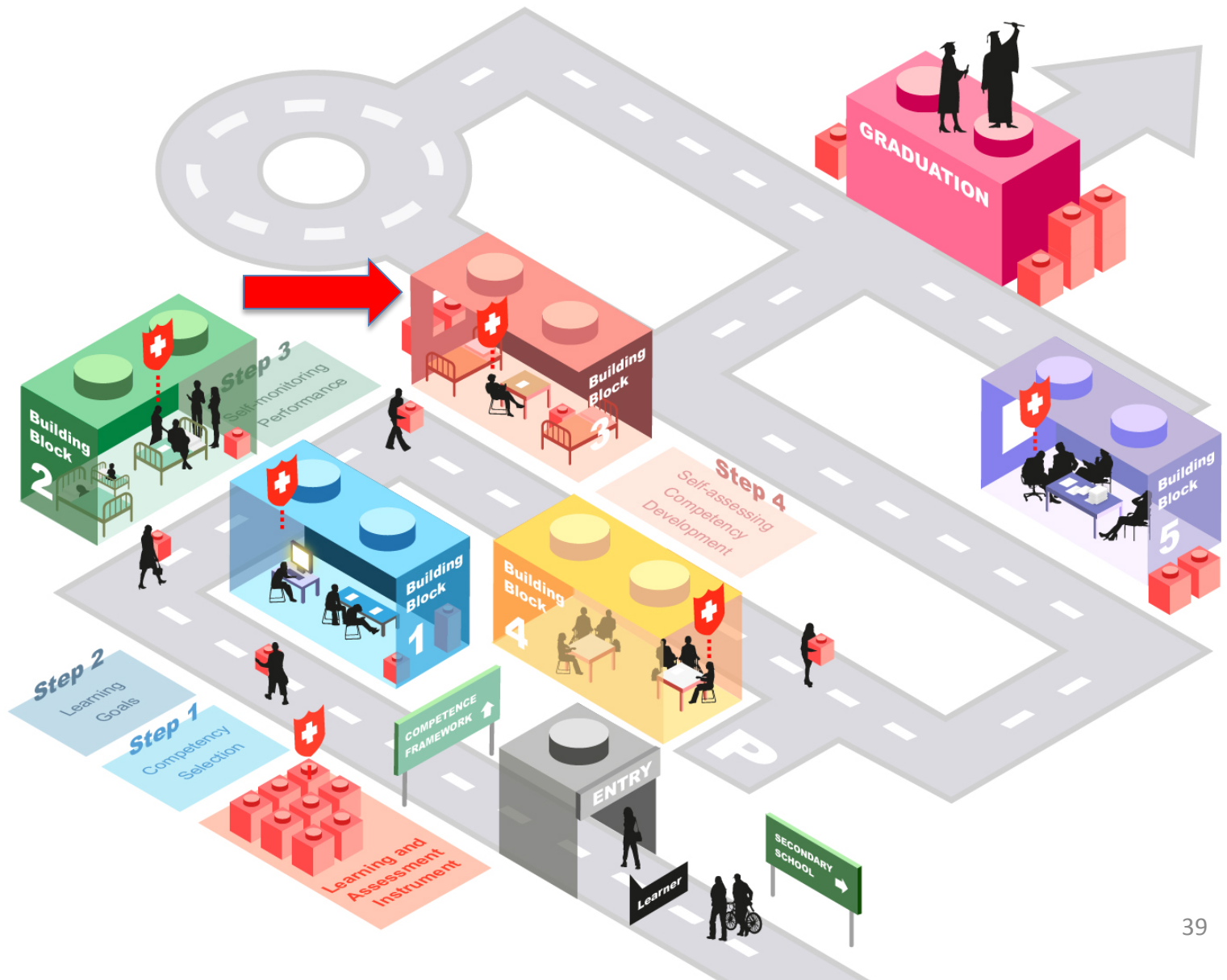


FEEDBACK - CULTURE



STEP 4: self-assessment

Reflection on **competency development** *(Eva & Regehr, 2005)*



STUDY 3

A comparison between **reflection on actions & reflection on competency development**

(Eva & Regehr, 2005)

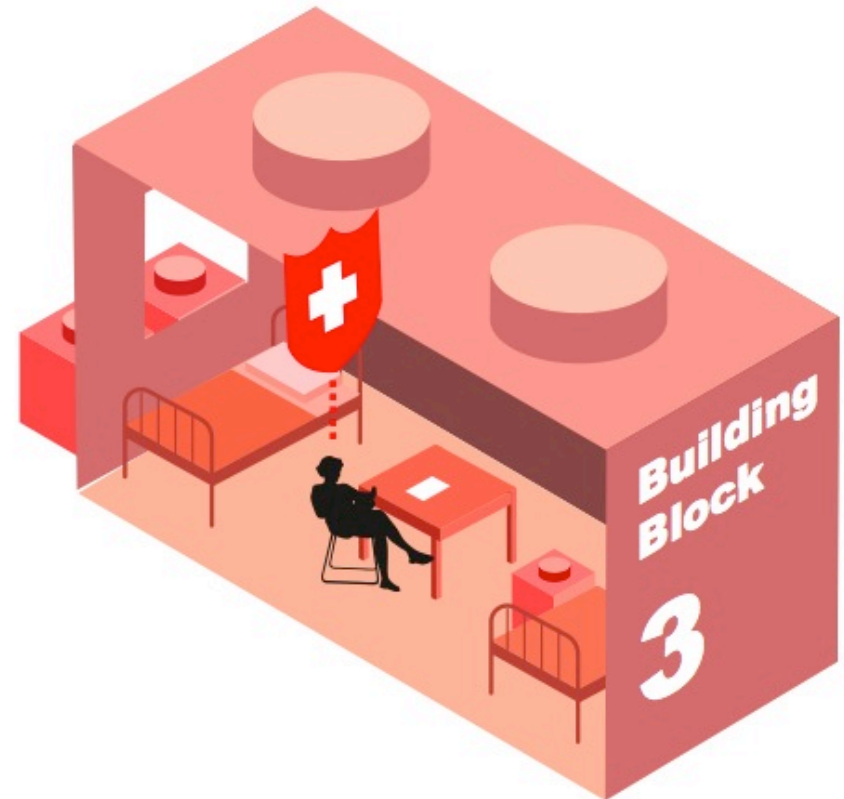
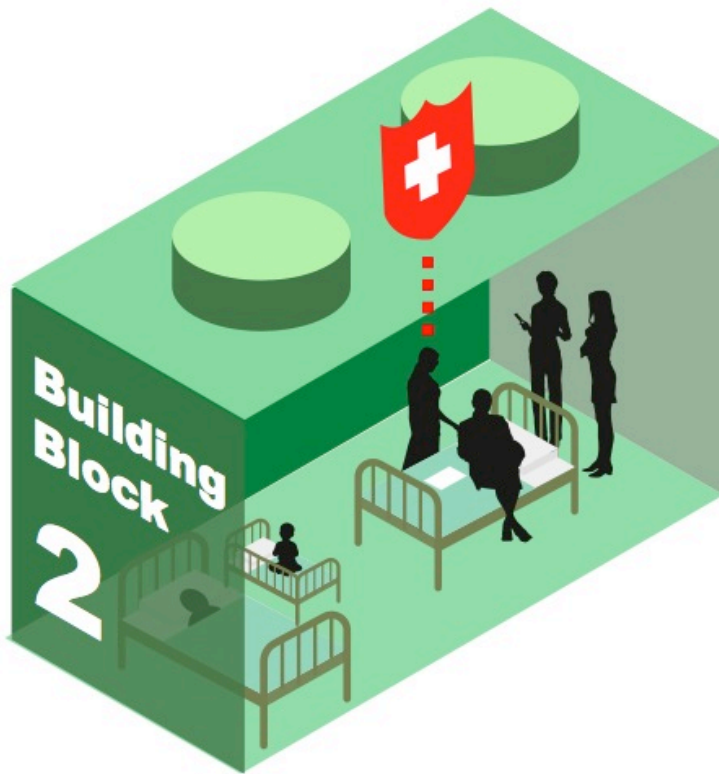


Self-monitoring

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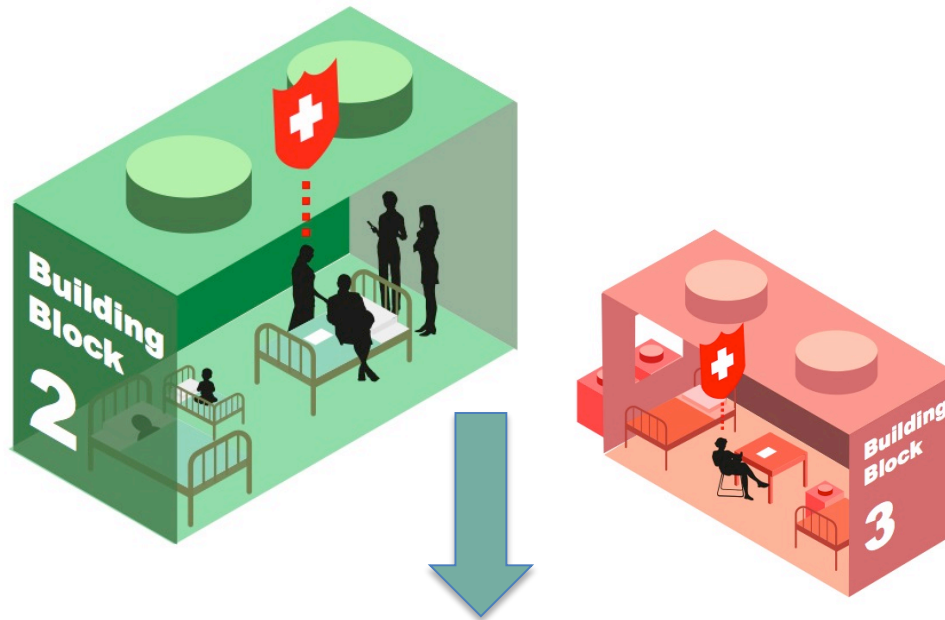


Self-assessment



Embo et al. Scaffolding reflective learning in clinical practice: A comparison of two types of reflective activities. *Med Teach* 2014;36(7):602-607.

RESULTS STUDY 3

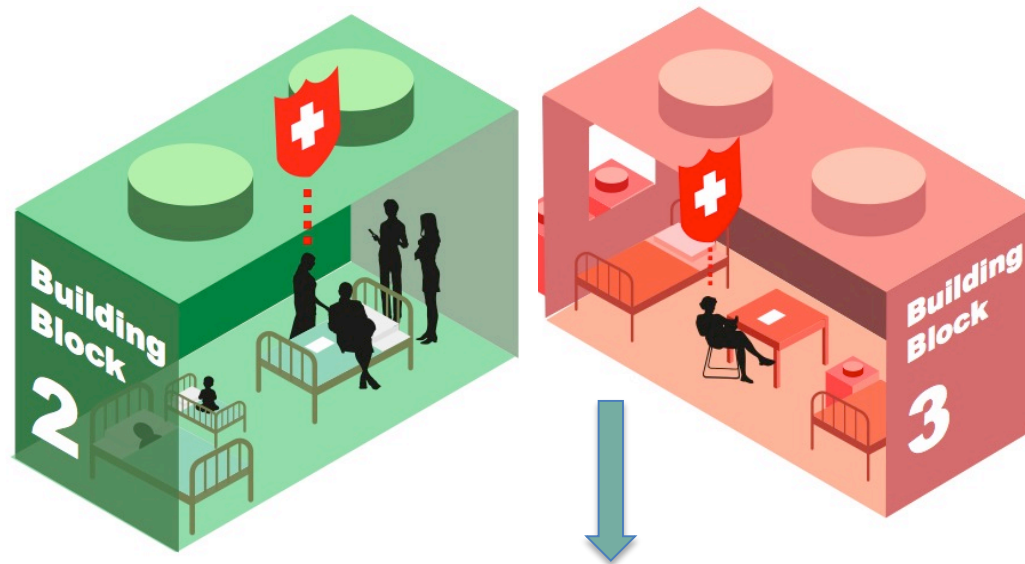


		Reflection-on-actions			Reflection-on-competency development		Paired sample t-test			Effect Size
	<i>n</i>	Mean	SD	>	Mean	SD	<i>t</i>	<i>df1</i>	<i>sig</i>	
year 1	32	7.28	1.08		5.70	1.99	4.31	31	0.000	0.98
year 2	57	6.85	1.20		4.57	1.81	8.06	56	0.000	1.48
year 3	36	6.88	1.23		5.20	1.76	5.57	35	0.000	1.10
grad.	21	6.88	1.77		6.42	1.66	0.74	20	0.466	0.26

N= number of respondents; Mean: on a score from 1 to 10; SD= standard deviation; t=paired samples t-test; df=degrees of freedom; sig=significant at $p < 0.0001$; Effect size= Effect size estimate for the differences between two means.

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RESULTS: STUDY 3

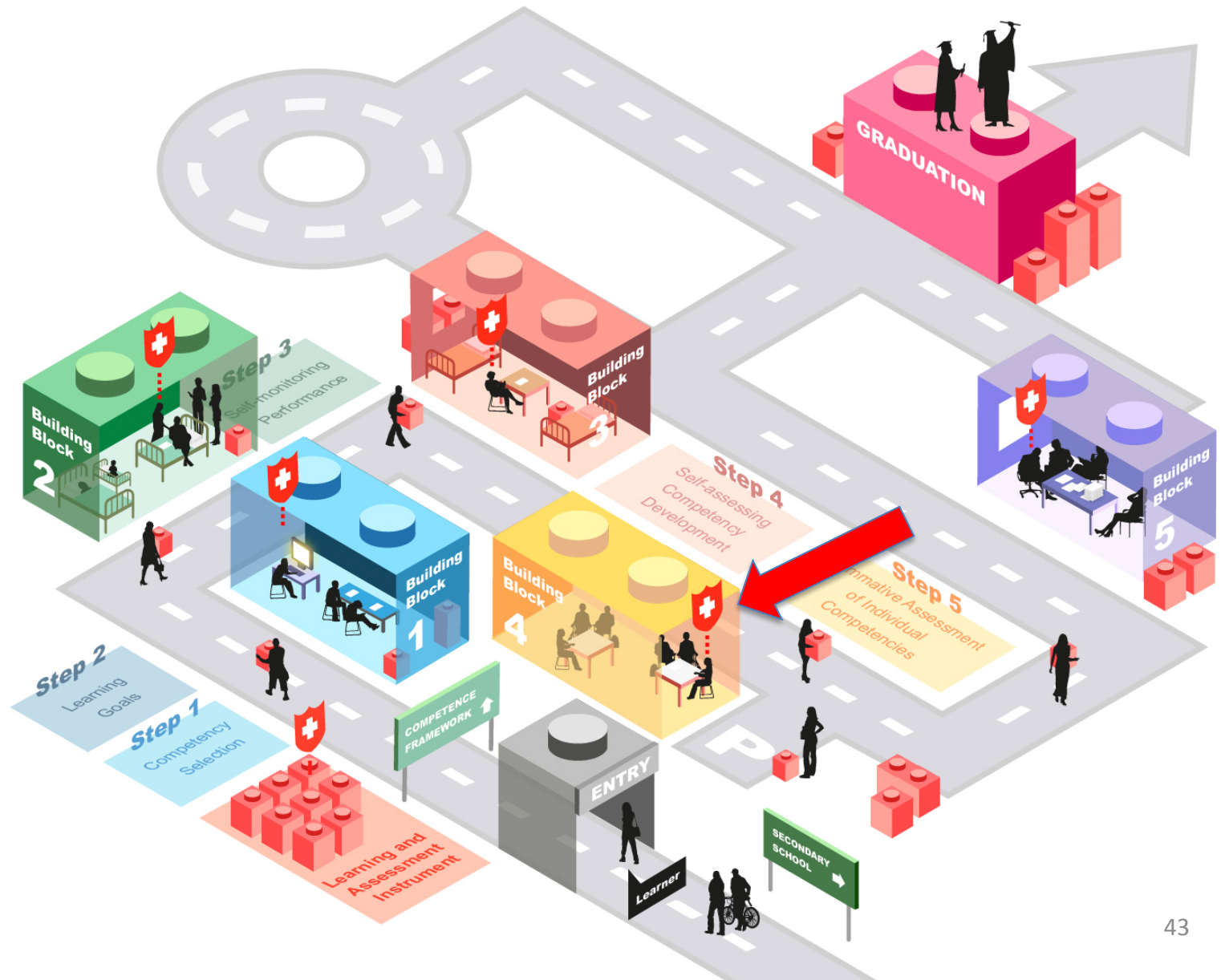


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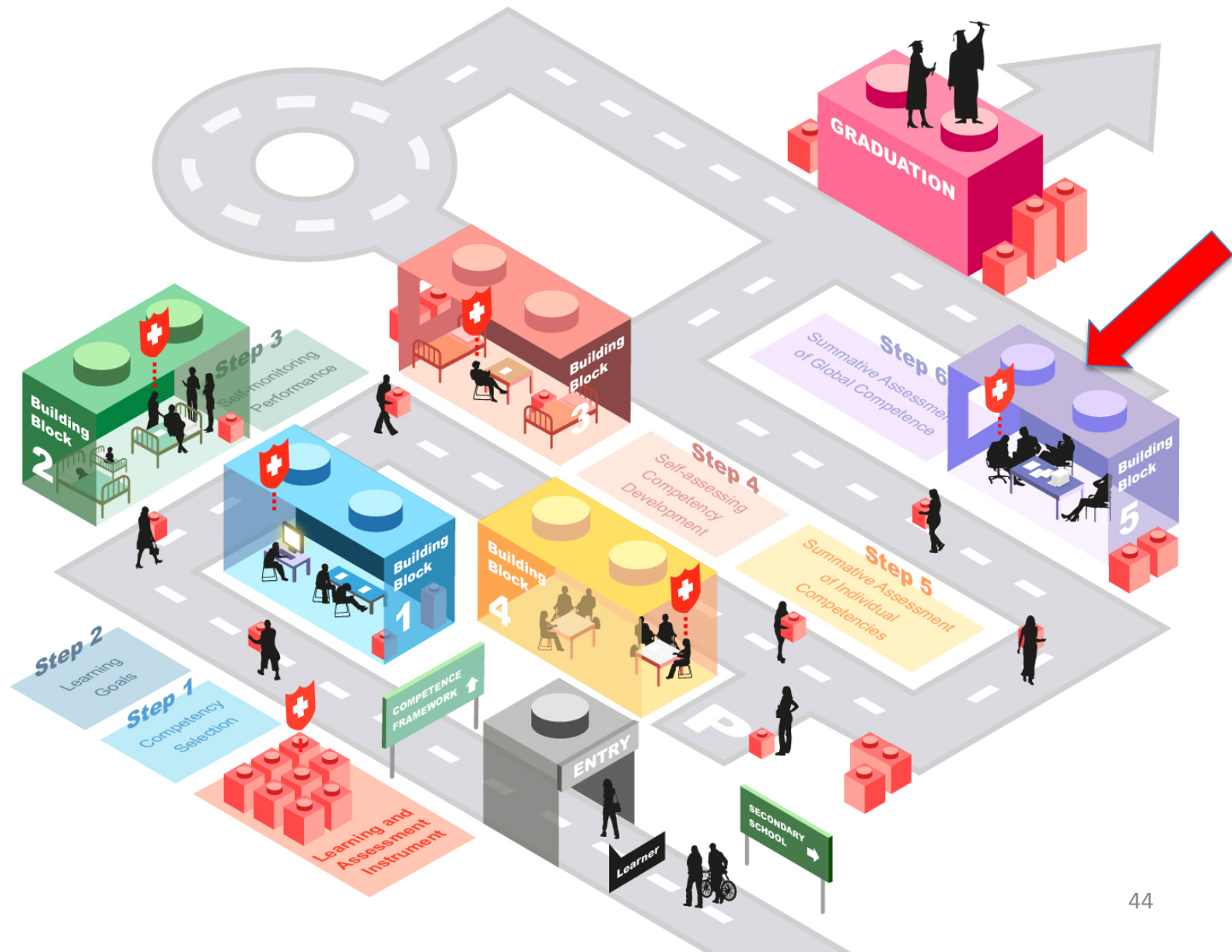
Embo et al. Scaffolding reflective learning in clinical practice: A comparison of two types of reflective activities. *Med Teach* 2014;36(7):602-607.

STEP 5: assessment of individual competencies



STEP 6: assessment of professional competence

(Hodges, 2013)



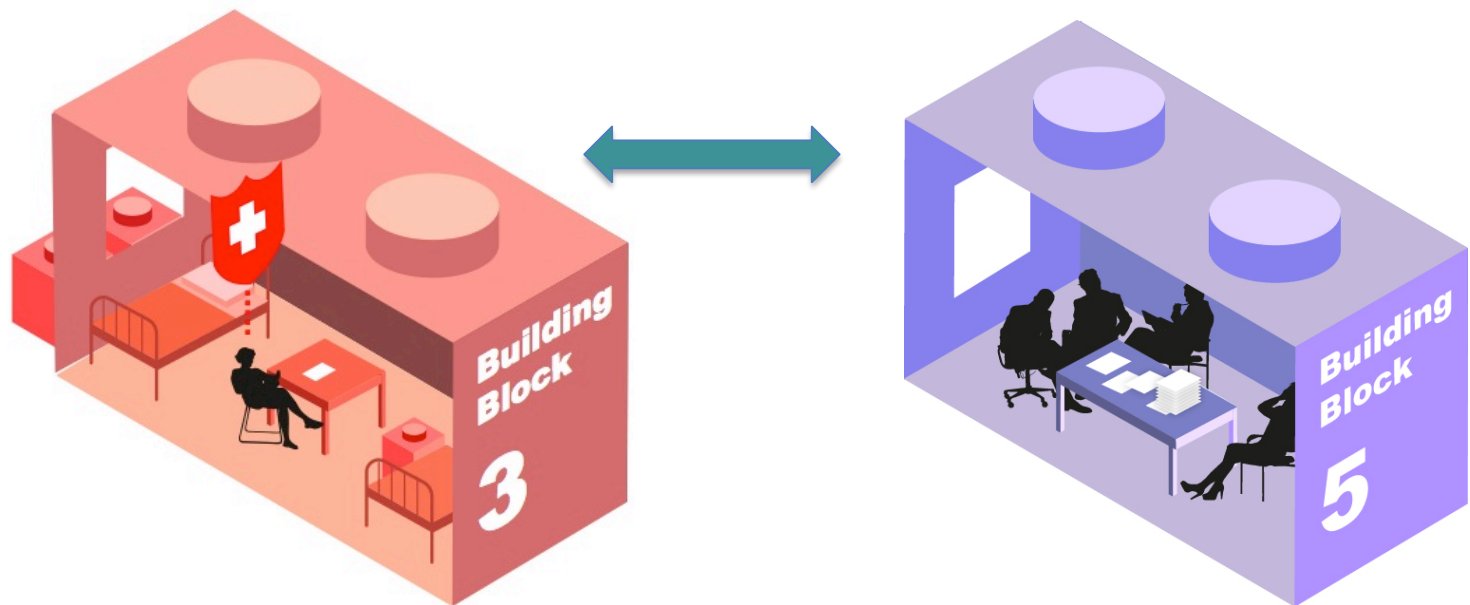
STUDY 4

Relationship between

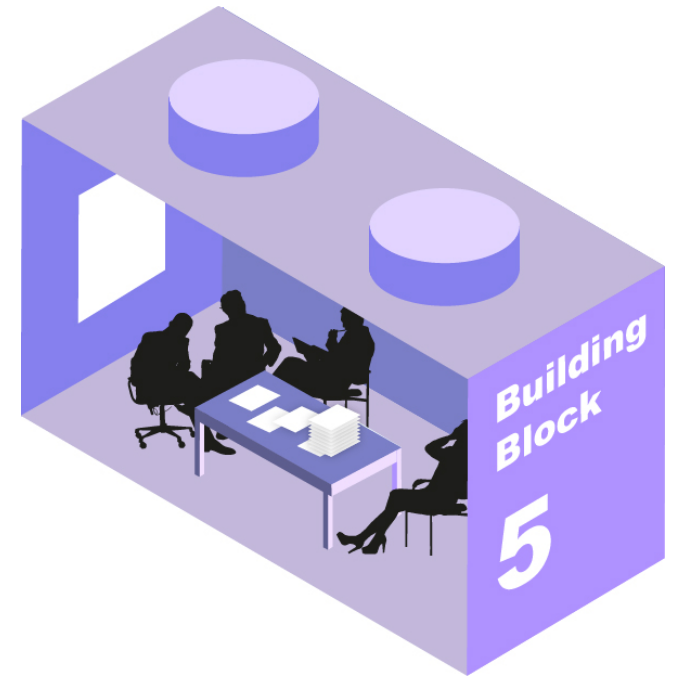
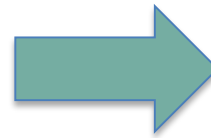
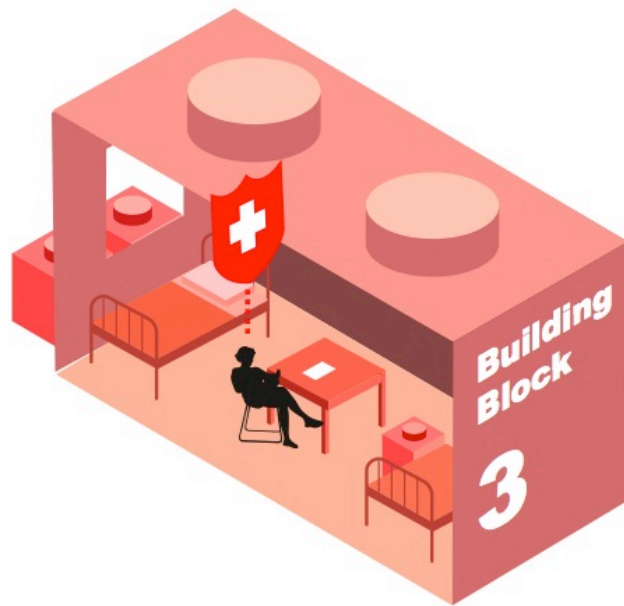
Reflection on
competency development

&

Reflection on
professional competence



Embo et al. Relationship between reflection ability and clinical performance: a cross-sectional and retrospective-longitudinal correlation cohort study in midwifery. *Midwifery* 2015;31(1):90-94.

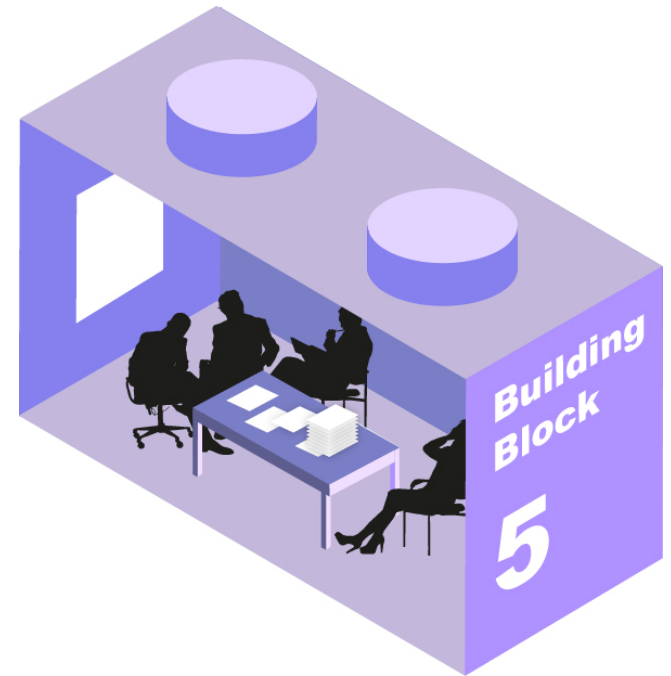
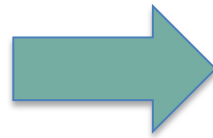
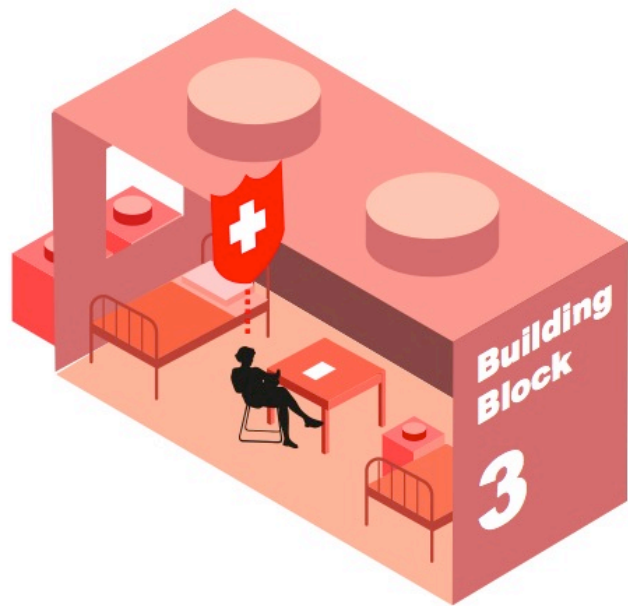


	Year 1	Year 2	Year 3
Cross-sectional	0,56**	0,55**	0,30*
Retrospective	0,42**	0,40**	0,45**

* correlation is significant at the 0.05 level (one-tailed)

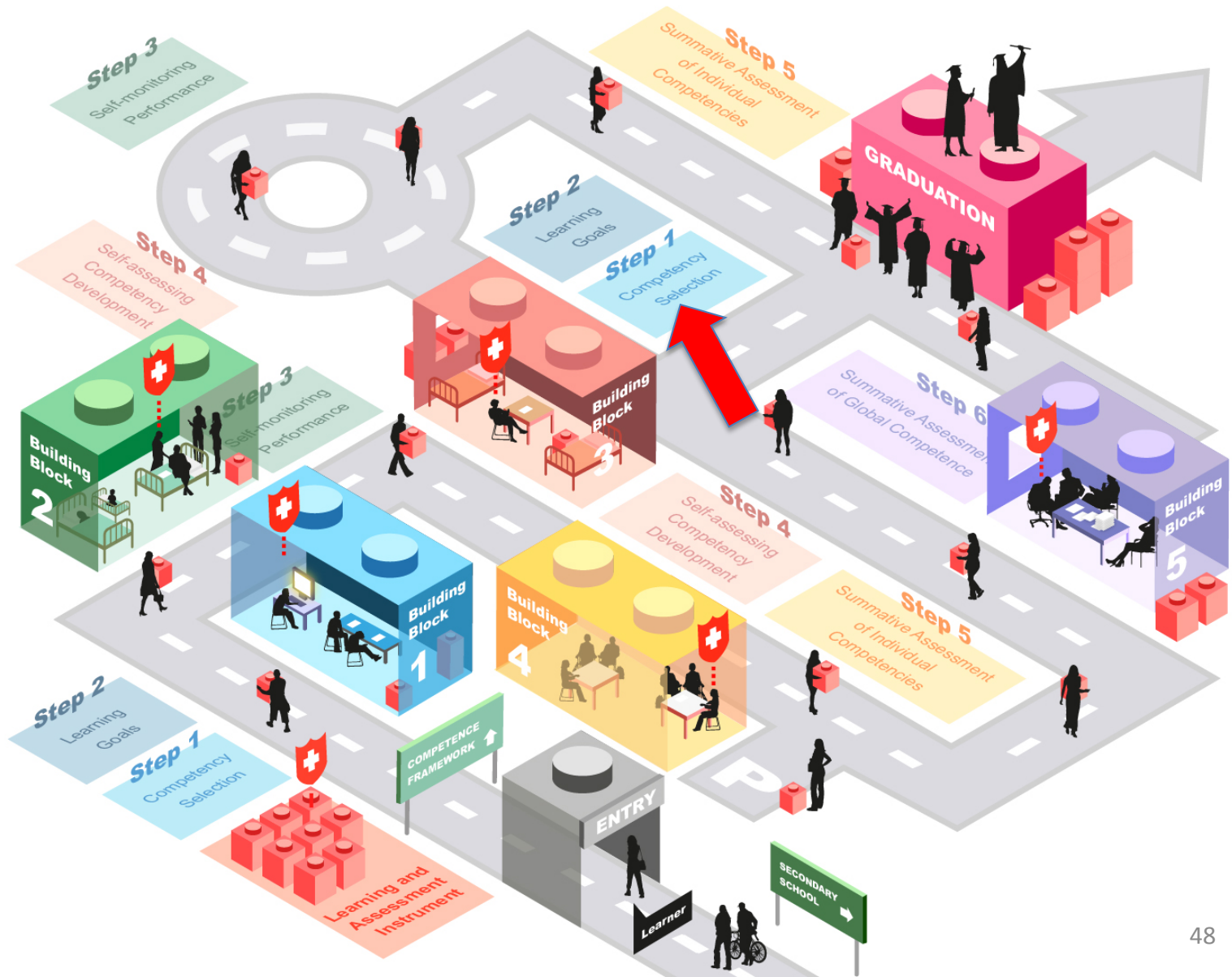
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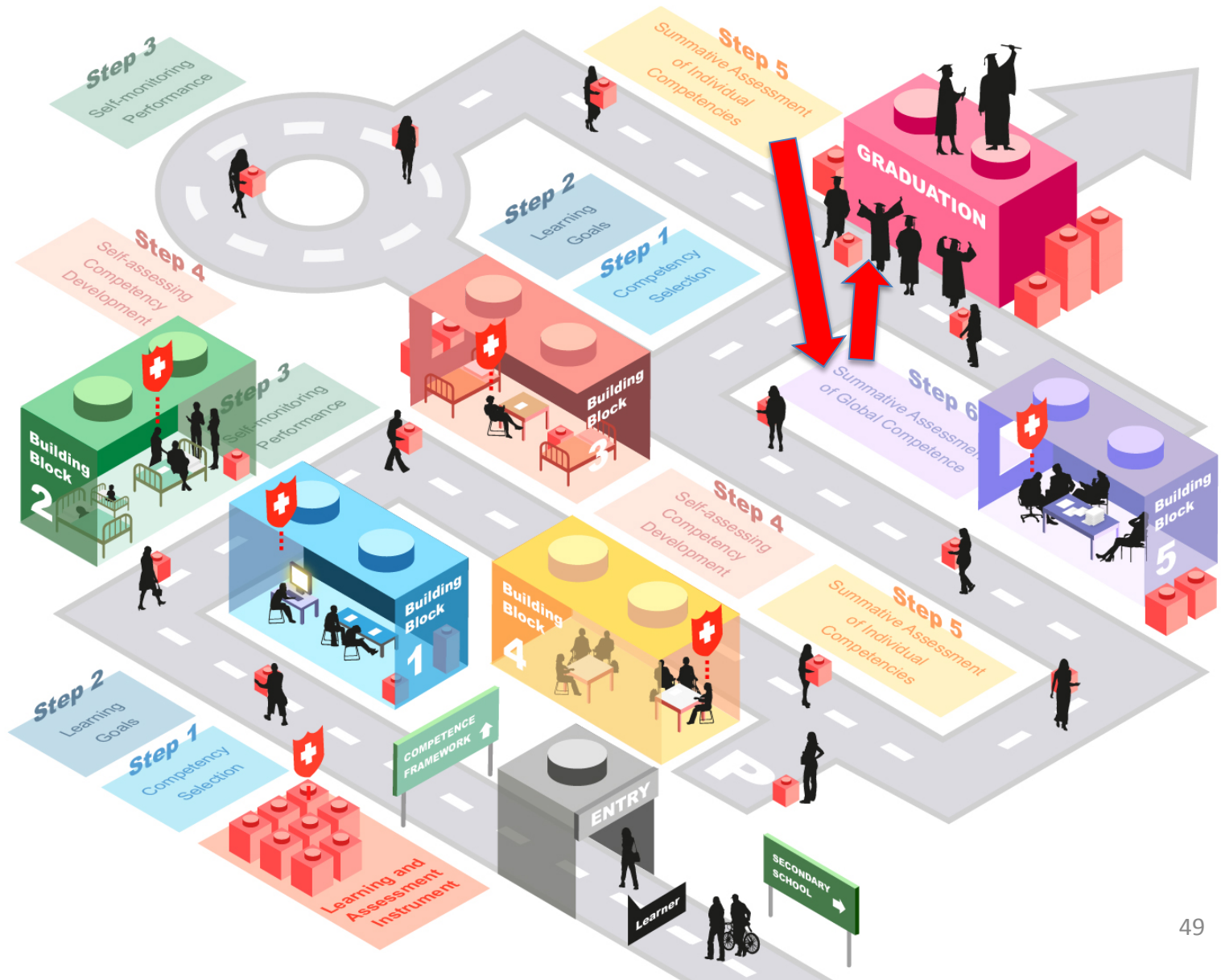
	Year 1	Year 2	Year 3
Year 1	0,42**	0,27**	0,27*
Year 2		0,40**	0,25**
Year 3			0,45**

STEP 5 – STEP 6: Programmatic continuüm



STUDY 5

Programmatic continuüm



Conclusion

How to integrate learning, assessment and supervision?

An **integrated** model is potentially valuable to support **continuous workplace learning**, but the success depends of **conditions**



What's the effect on the learning design?

A twofold **reflection- and feedbackstrategy** supports a self-regulated **learning continuüm**



What's the effect on the design of summative assessment?

A twofold **assessment strategy** supports a programmatic **assessment continuüm**

Integrating workplace learning, assessment and supervision in health care education

<http://pub.maastrichtuniversity.nl/700fdd2c-b660-48cf-ad32-2a9f4effff95>



University Maastricht
Mieke Embo

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Prof. dr. C.P.M van der Vleuten
Prof. dr. M. Valcke
Copromotor
Dr. E.W. Driessen





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Rector M. P. C. Eneo

Thanks

Time for questions!



Interest and ideas for further research?
mieke.embo@arteveldehs.be