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LEARNING *for* CHANGE AND INNOVATION

WORLD CONGRESS

7-9 NOVEMBER 2016 ADELAIDE, SOUTH AUSTRALIA

CONGRESS SUPPORTERS



the practical business school



Safe failing: Cross-discipline simulation across built environment disciplines

- Werner Soontiens, Khoa Do, Francesco Mancini - Curtin University

This session...

- Safe failing: stakeholders mindsets
- Safe failing: experiential, design, wicked problem
- Application
- Debrief: habits and draft picks
- Capstone
- Considering learning

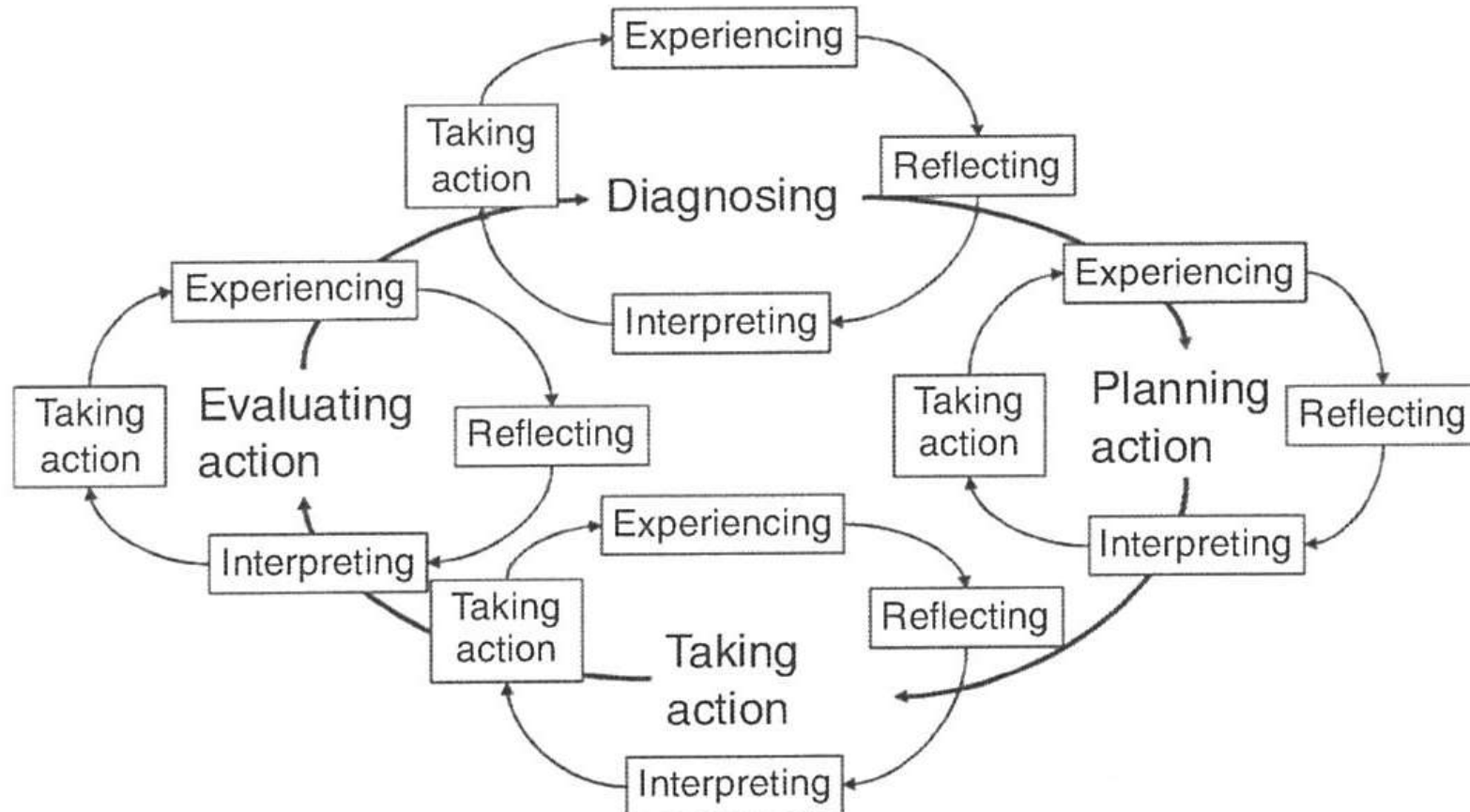


SAFE FAILING

- Stakeholders
 - University (assessment)
 - Students
 - Industry
- Facilitating safe failing – little/no consequences, practice industry, facilitates ideation.
- Creating a safe environment to experience an iterative generative process.
- Learn to take the ‘best fail’ forward – developed in a creative , enjoyable atmosphere.

EXPERIENTIAL & CO-OPERATIVE LEARNING

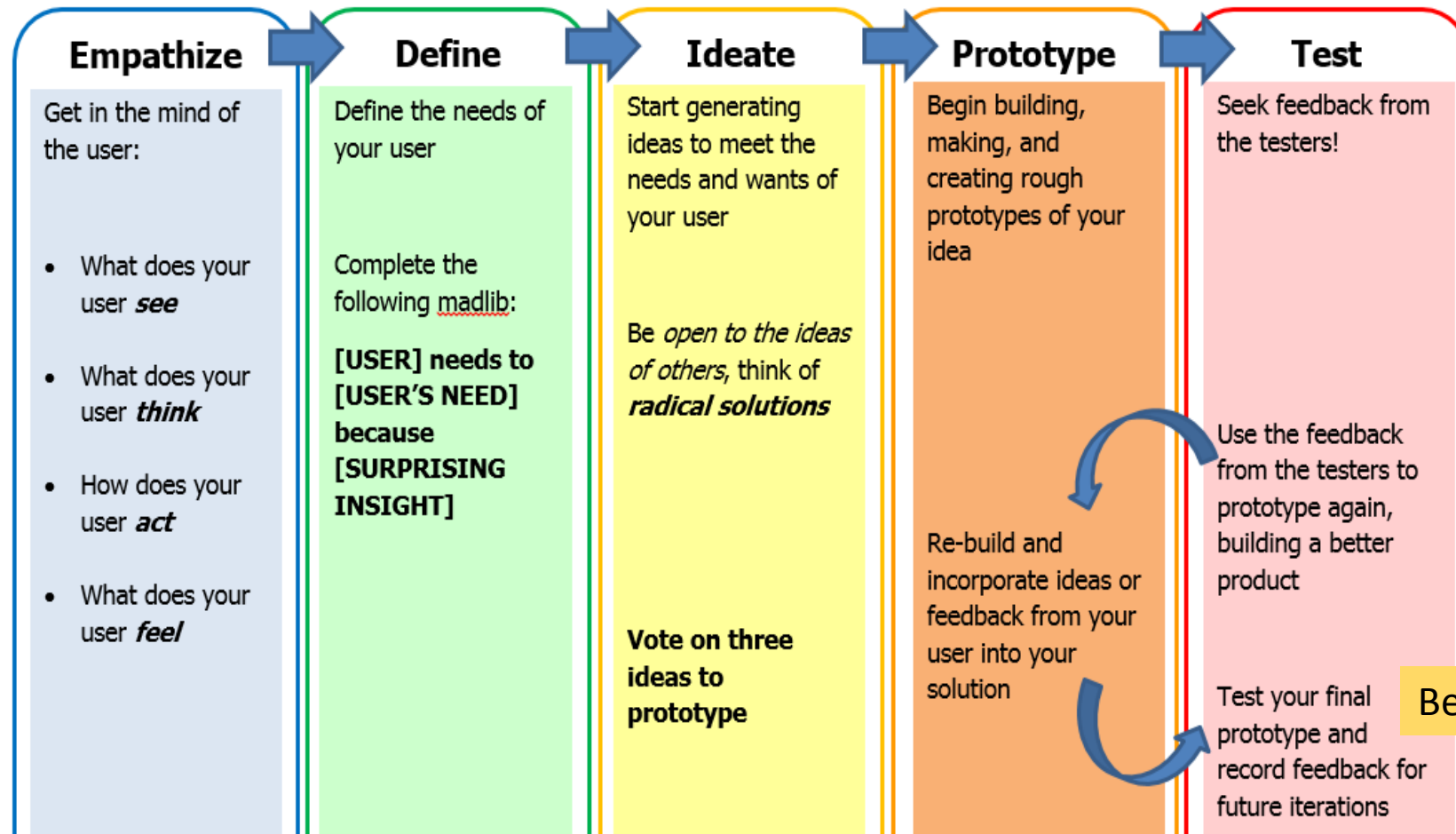
- Experiential learning circle (Coghlan and Brannick, 2005) – turning self-awareness and sensitivity into meta-learning and knowledge.



Integrated work practice key to raising employability (Myklebust 2016)
...co-operative education model – academic studies with integrated periods of practice in working life -

DESIGN THINKING

- approach (Ideo, & d.School Stanford).



DESIGN THINKING

PHASES

1

DISCOVERY



I have a challenge.
How do I approach it?

2

INTERPRETATION



I learned something.
How do I interpret it?

3

IDEATION



I see an opportunity.
What do I create?

4

EXPERIMENTATION



I have an idea.
How do I build it?

5

EVOLUTION



I tried something new.
How do I evolve it?

STEPS

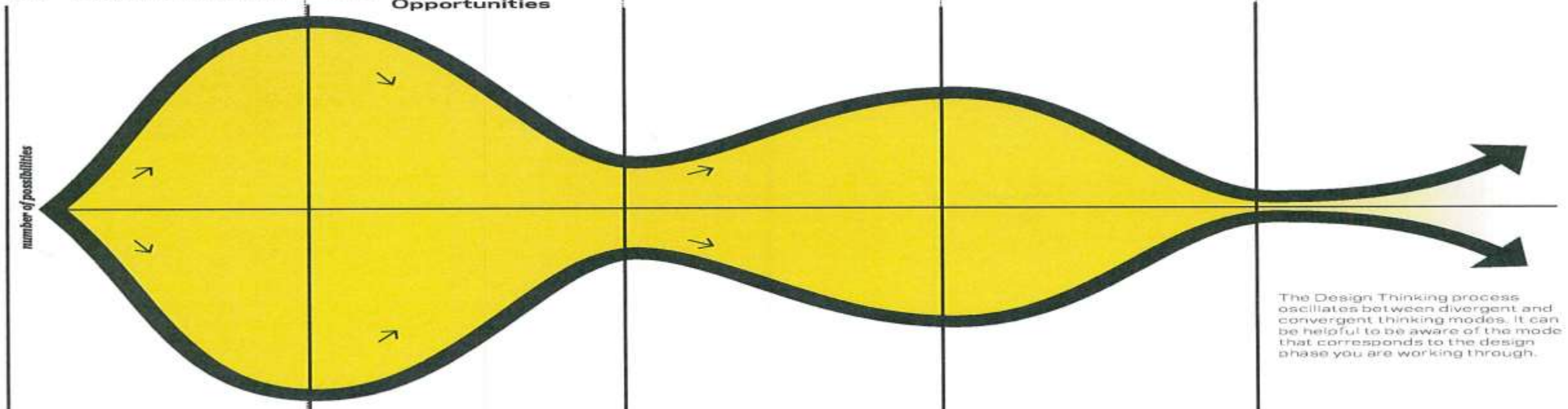
- 1-1 Understand the Challenge
- 1-2 Prepare Research
- 1-3 Gather Inspiration

- 2-1 Tell Stories
- 2-2 Search for Meaning
- 2-3 Frame Opportunities

- 3-1 Generate Ideas
- 3-2 Refine Ideas

- 4-1 Make Prototypes
- 4-1 Get Feedback

- 5-1 Track Learnings
- 5-2 Move Forward



The Design Thinking process oscillates between divergent and convergent thinking modes. It can be helpful to be aware of the mode that corresponds to the design phase you are working through.

WICKED PROBLEM - SIMULATION

a problem that seems difficult or impossible to solve.

Common characteristics:

- incomplete or contradictory data or requirements around the problem
- connected to, and impact other problems
- no single satisfactory answer to the problem OR
- the obvious answer is not the answer you want.

As is often the case with research, the most important step towards solving the problem is framing the most accurate (right) problem statement accepted by stakeholders.

e.g. MAPPING

CIRCLE MAP

Defining in Context



How are you defining ideas? What is the context? What is your frame of reference?

BUBBLE MAP

Describing Qualities



How are you describing this idea? Which adjectives would best describe this idea?

DOUBLE BUBBLE MAP

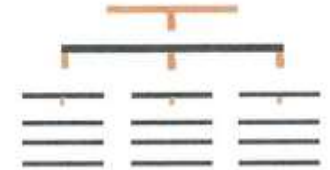
Compare and Contrast



What are the core ideas, supporting ideas, and details in this information?

TREE MAP

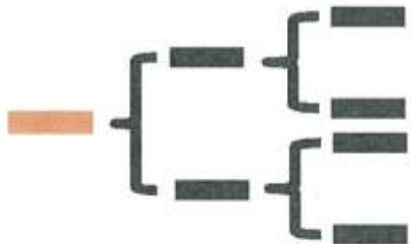
Classification



What are the core ideas, supporting ideas, and details in this information?

BRACE MAP

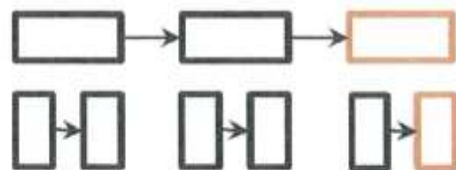
Part-Whole



What are the component parts and subparts of this idea as a whole?

FLOW MAP

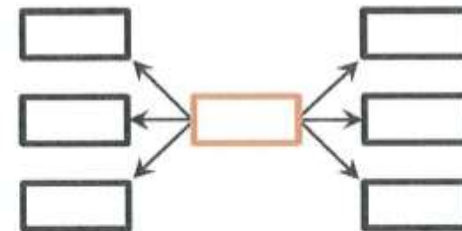
Sequencing



What is the sequence of the idea? What are the sub-stages?

MULTI-FLOW MAP

Cause and Effect



What are the causes and effects of this idea? What might happen next?

BRIDGE MAP

Seeing Analogies



What is the analogy being used? What is the guiding metaphor?

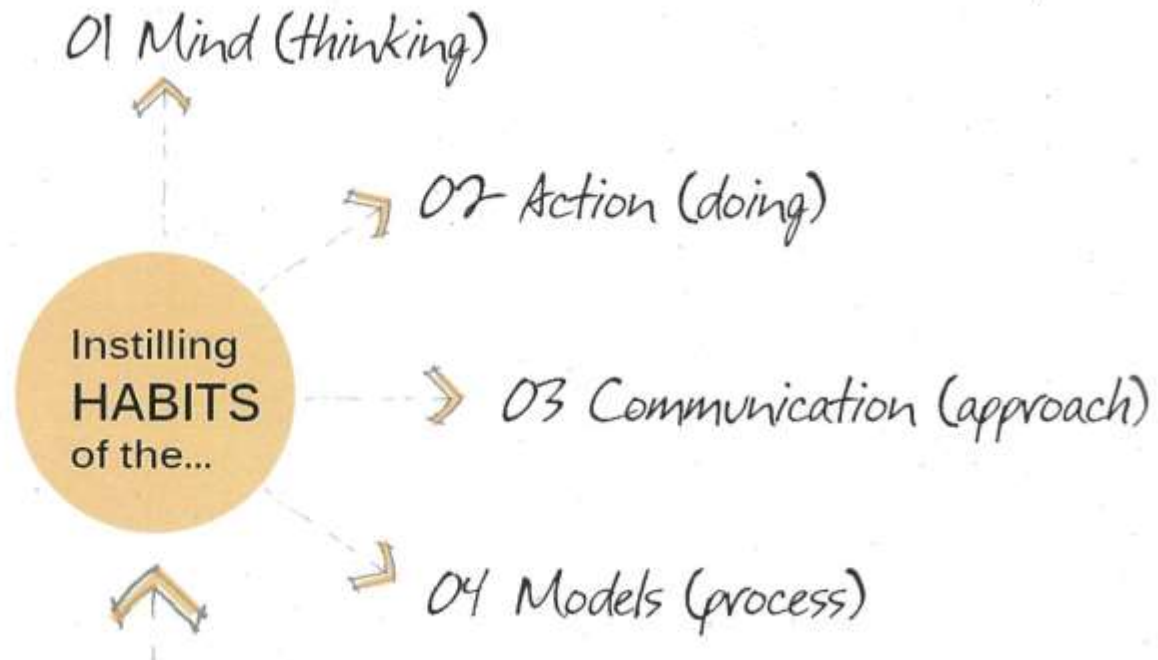
**Cameras
(or not)**

....

ACTION

Debrief

WHAT WE ARE HOPING FOR



activities



play &
recreation



learning
landscapes



learning
reflectively



learning by
ideation



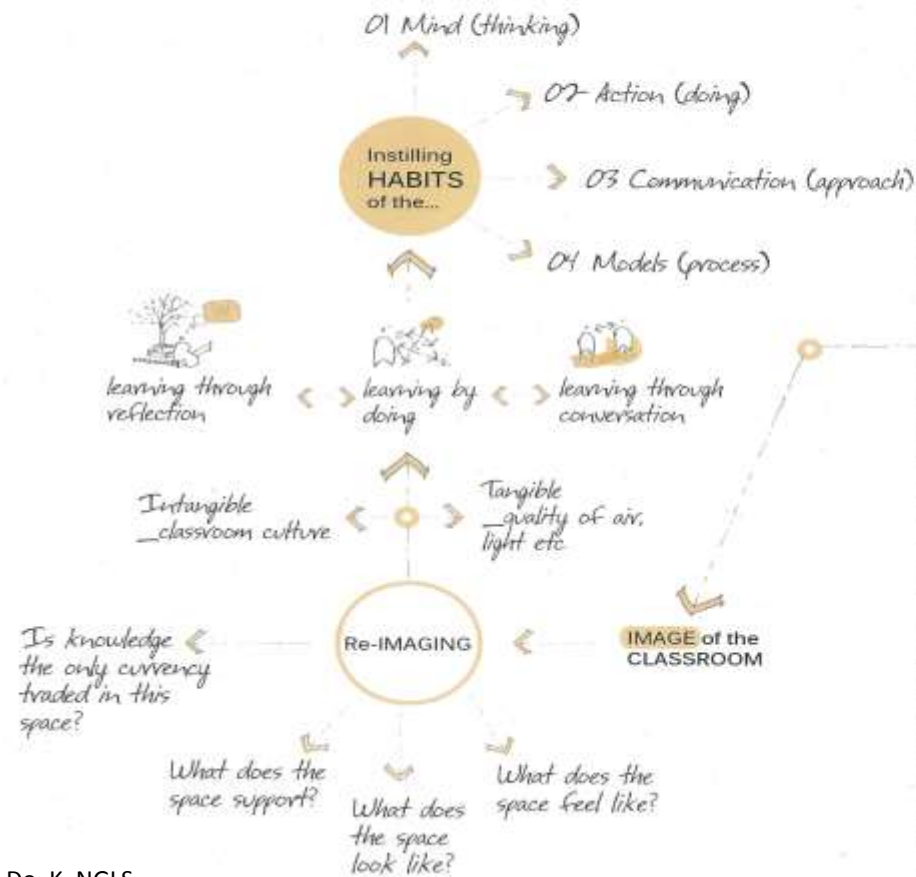
learning by
dialogue

CONSIDERATIONS

NEXT GENERATION LEARNING SPACES - adapted

THE DESIGN DISCOVERY PROCESS

...to engage the qualitative and the quantitative...
...tangibles and intangibles.



Envisioning the possible learning futures...

01 PEDAGOGY

- + Curriculum / content
- + Knowledge keepers
- + Learning interactions
- + Learning experience

The effectiveness of the Next Generation Pedagogy

02 SPACE

- + Physical dimension
- + Foreground & background
- + Support learning interactions
- + Learning experience

The effectiveness of the Next Generation Technology

03 TECHNOLOGY

- + Connectivity
- + Time
- + Mobility & Access
- + Integration
- + Learning experience
- + Ubiquitous

TRENDS



"Sage on the stage"

- _teaching centred
- _knowledge holder
- _instructional
- _delivery focussed



"Guide on the side"

- _student orientated
- _peer to peer
- _self-reflective
- _social & collaborative
- _interactive
- _social

SHIFTS



"Volumes"

- _structured
- _hierarchical
- _focussed
- _convergence
- _raised



"Environments"

- _less-structured
- _divergence
- _level playing field
- _multi-focussed
- _points of convergence

DEVELOPMENT



"Tool-kit"

- _implements
- _apparatus
- _tacit



"Devices & gadgets"

- _storage devices
- _information portals
- _virtual applications
- _network

01

PEDAGOGY

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The effectiveness of the Next Generation Pedagogy

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Consortium members

- Academics
- Students (UG & PG)
- Accreditors
- Architects (A & IA)
- Planners
- Builders
- Community
- Government



GLOBAL CENTRE FOR
WORK-APPLIED LEARNING
PIONEERING WORK-APPLIED LEARNING



ACTION LEARNING, ACTION RESEARCH
ASSOCIATION INC.

The effectiveness of the Next Generation Technology

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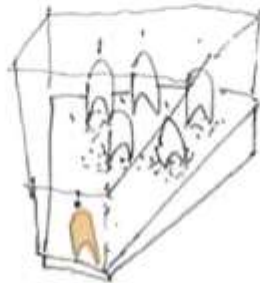
02 SPACE

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- + Support learning interactions
- + Learning experience

??

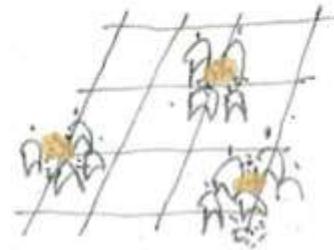
Experience??

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GLOBAL CENTRE FOR
WORK-APPLIED LEARNING
PIONEERING WORK-APPLIED LEARNING



Intangible
Interactive dynamics

Tangible
Project
environment



Is knowledge the only currency traded in this space?

IMAGE of the Experience 'SPACE'

What does the space support?

What does the space look like?

What does the space feel like?

- Points of difference

1. Ability to reflect on unfinished work
2. Ability to participate in something you are not good at
3. Ability to take on problems that don't have a clear answer (wicked problems)
4. Sharing expertise and finding innovation in the spaces between expertise
5. Collaborate without 'bigfooting'
6. Bring out the potential creativity and innovativeness in people

- Takeaways

1. Don't ignore emotions/feelings/intuition
2. Go for early fails (prototyping)
3. Visualisation is a tool (diagramming); don't just rely on words
4. Look for insights, not solutions
5. The stated problem may not be THE problem
6. Don't be afraid of the unknown
7. Look for ways to collaborate
8. Don't solve the problem, just move forward
9. Solve for yourself

A CAPSTONE COMPLEMENTING CURTIN'S

- work integrated (applied) learning.

Fieldwork

Practical component, required as integral part of the course, conducted outside the normal University setting

WIL

includes work placements, fieldwork, industry-based projects, case studies, simulations, virtual simulations, reflective journals, problem-based learning, mentoring from industry partners, work-related presentations, role plays, laboratories and capstone subjects

= Your Curtin degree
+ industry experience

Curricular & co-curricular

Assessment

Intensity & Focus

Frequency
Duration
Industry partner



Adapted from Do, K. NGLS

- Capturing of work integrated (applied) learning.

Explore

Evidenced – low intensity, no assessment

Apply

Developed – focussed , some assessment

Highly Developed
(Placement, Internship, Simulation)
full credit

Absent

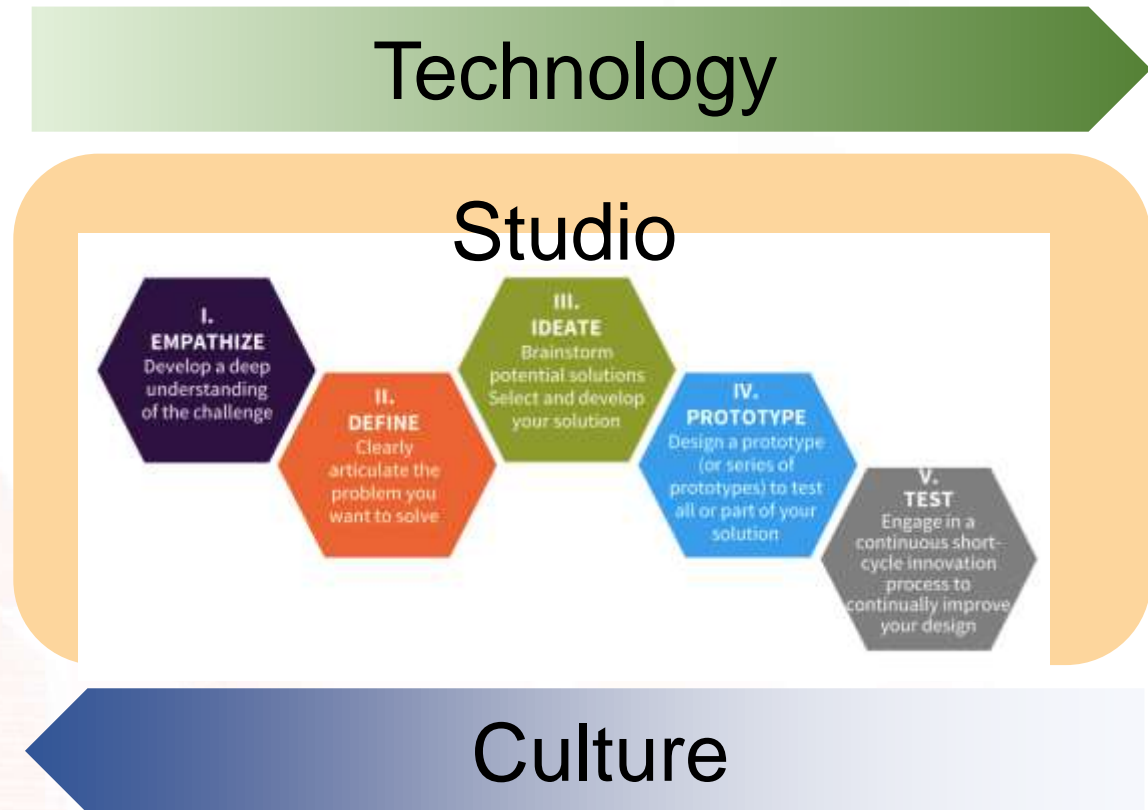
Theoretical and/or introductory content

Ignorant

Not evidenced

A CAPSTONE COMPLEMENTING SOBE'S

- Sanditechure (1st yr)
- Resignification
- Studio (continuous)
- Themed Constructions (3rd yr)



Resignification



Themed construction



Coming Soon @ Curtin University
on Monday 24/05/2016 at 12pm

Adapted from Do, K. NGLS

• THANK YOU



Adapted from Do, K. NGLS