

# Transformative learning in collaborative teams designing technology enhanced learning arrangements

HAN University of applied sciences Centre of expertise learning with ict

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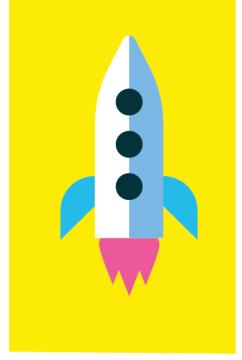


#### Introduction

- Developing evidence-informed, innovative and technology enhanced learning arrangements for students is a challenge.
  - changing routines
  - using new digital tools
  - sometimes new learning objectives,
  - sufficient access to knowledge from research
  - tradition of research-based working

This requires a transformative learning process in which teachers are challenged

- As a result: robust mental model change or transformative learning
- Perspective transformation

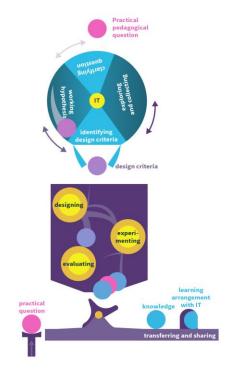




## iXperium Design Teams in a nutshell (since 2013)

Developing technology enhanced learning arrangements

- Aimed at teachers' professional development for technology enhanced learning and teaching
- Practice-based, evidence-informed
- Open-ended
- Multidisciplinary and cross-organisational
- Design thinking, co-creating, thinking outside the box
- Critical reflection and transformative learning







#### Examples iXperium design teams



2022 GEPERSONALISEERD LEREN MET ICT, ORGANISATIE GEPERSONALISEERD LEREN -ONDERZOEK MOVEL

Gepersonaliseerd leren in het rekenonderwijs bij 't Vossenhol

**Primary education** Personalised learning in maths education



2022 GEPERSONALISEERD LEREN MET ICT

Een lessenserie op het snijvlak van kunst, wetenschap en (digitale) technologie

Secondary education A lesson series at the intersection of art, science and (digital) technology



GEPERSONALISEERD LEREN MET ICT

Zelfregulatie bij blended onderwijs stimuleren bij Rijn IJssel

ICT-GELETTERDHEID

Ict-geletterdheid in de opleiding integreren bij Academie Educatie

Vocational education Stimulating selfregulation in blended learning **Tertiary education** Integrating IT-literacy in the curriculum



#### **Process facilitator:**

- guiding and monitoring the process of evidence-informed design
- chairing meetings
- overseeing documentation of findings

Roles of two participants supported by a blended, on-the-job learning track



#### **Researcher:**

- ensuring and supervising the quality of evidenceinformed design and research
- asking critical questions
- linking pin to other iXperium design teams with similar questions

#### iXperiumdesignteams

Blended learning tracks for process facilitators and researchers

- two separate tracks
- intake
- 8-10 online modules
- just in time and on-the-job
- peer-to-peer learning and coaching sessions (feedback)
- assignments and personal learning portfolio (reflection on learning process)
- assessment framework
- intermediate evaluation
- final evaluation



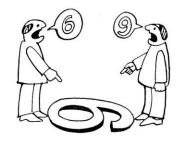


#### 5 aspects contributing to transformative learning

- Difficult and unknown situations
- Friction / disequilibrium
- A safe environment •
- Critical inward and outward reflection
- Learning process involving self-reflection, self-regulation, interaction/collaboration/dialogue, and experiential learning.



Working in the iXperium designteam



Participating in the blended learning track



#### Research questions and methods

1. How is **transformative learning stimulated in the** blended learning track **design?** 

Content analyses (mostly activities & assignments)

- What is the contribution of the training and specific peer-to-peer learning and coaching to transformative learning?
  (4) Interviews with trainees & personal reflection trainers
- 3. What do we learn from the peer supervision and coaching sessions **participants' questions and dilemmas**?

Thematic analyses of (63) dilemmas





## Design of the blended track amplifying TL

- Overall
- Plan their own learning (modules and assignements)
- The learning track runs simultaneously while working in a designteam
- Intake & First module: introduction
- Intake
  - Profile / role requirements
  - o Mutual expectations
  - Exploring outside the comfort zone
  - Learning questions
- Introduction module & Video own perspective on design teams + feedback



## Design of the blended track amplifying TL

#### Peer-to-peer learning and coaching

- Safe context (non-judgmental)
- Presenting dilemmas
- Challenging existing beliefs
- Stimulating self-reflection
- Trying out new practices

- Sharing experiences
- 'Gossiping'
- Individual coaching
- Discussions with peers



## Contributions of the blended track in amplifying TL

#### Peer-to-peer learning and coaching

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## Contributions of the blended track in ampifiing TL

Interview outcomes

- they learned a lot
- valued
  - various parts of the training
  - the complementary work in the designteam
  - the collaboration with the reseacher/proces facilitator in the designteam.



## What do we learn from the peer supervision and coaching sessions participants' questions and dilemmas?

63 questions and dilemmas

#### Categories

- Time
- Role skills and role definition
- Guidance and flexibility
- Organization and context
- Content
- Formulating the question meaningfull (and) motivating the participants

How can I, as a process facilitator, working from ambiguity and a tangle of questions arrive at a working hypothesis that everyone is happy with? Formulating the question meaningfull How can I, as a researcher, ensure that the process runs smoothly without taking over the role of the process facilitator?

Team compos

#### **Role definition**



## Discussion and questions

- How can we ensure that the transformative learning of researchers and process facilitators contributes to their performance within the setting of the design teams so that transformative learning is stimulated in other participants?
- Suggestions for non-intervening methods and data collection in iXperiumdesgin teams about (transformative) learning of the participants





## More information?

https://www.ixperium.nl/onderzoeken-enontwikkelen/ixperium-designteams/



#### IXPERIUM

#### iXperium designteams: Onderzoekend ontwerpen van ict-rijke leerarrangementen

Doel, ontwerpprincipes, werkwijze en organisatie





Onderzoekend ontwerpen van vernieuwende, ict-rijke leerarrangementen samen met mensen uit andere organisaties en disciplines.



#### Wat is een iXperium designteam?

In iXperium designteams ontwerpen leraren, lerarenopleiders, onderzoekers, ict-experts, praktijkdeskundigen en studenten onder begeleiding van een procesbegeleider ict-rijke leerarrangementen. Een ontwikkeld leerarrangement kan bijvoorbeeld een les, een lessenreeks of een volledige leerlijn zijn. iXperium designteams worden samengesteld rond een onderwijskundig praktijkvraagstuk op het gebied van gepersonaliseerd leren met ict en/of lct: gelettwicheid, waarvoor nog geen duidelijke oplossing voorhanden is.