ITELab – Innovating ITE curricula

Key Action 2 - Knowledge Alliance project

ITE Forum: 12th Dec 2019, 15hCEST

Returns to Innovative Teaching: a focus on VR and Video

Discussion question: “The challenges and advantages of using leading-edge technology in teaching & learning settings?”
Characteristics:

- U + I
- Knowledge-sharing
- Multiple voices
- Contemporary topics
- Monthly
ITE FORUM: TODAY’S AGENDA

1. **Welcome** by co-chairs Dr Conor Galvin (UCD) & Peter Claxton (SMART)

2. **Returns to Innovative Teaching – a focus on VR and Video**
   
   University of Würzburg: Prof. Dr Silke Grafe, Gabriela Ripka, Thomas Schoeter
   
   SMART Technologies: Peter Claxton
   
   IRIS Connect: Shawn Edmondson, Vesna Belogaska.

3. **Open Forum**: “The challenges and advantages of using leading-edge technology in teaching & learning settings?”

4. **Moving forward 2020 – EUN FCL, Bart Verswijvel**
ViLeArn

Virtual Reality in Teacher Education

Project members

School pedagogy: Silke Grafe, Gabriela Ripka, Thomas Schröter, Jennifer Tiede
Human-Computer-Interaction: Marc Latoschik, Florian Kern, Peter Kullmann
University of Wuerzburg, Germany
The project ViLeArn - Aims

Fostering media pedagogical competences of student teachers and teacher educators in higher education

Development of a virtual situated learning environment with avatars and agents
Virtual Learning Environment
Design and timeline

- 2018
  - School pedagogy
    - Needs’ analysis TE+ST
  - HCI
    - Technical needs’ analysis

- 2019
  - Didactical concept TE+ST
  - Development VR environment

- 2020
  - Impact researches in 5 iterative cycles

- 2021
  - Further training concept TE
  - Didactical concept ST
  - VR application

- 2022
Results needs analysis

- Flexibility
- On-the-job-training
- Teacher Educators
- Feasibility of hardware
- Communication
- Interaction
- Adaptation of reality
- Student Teachers
- Face-to-face workshops
Study student teachers
Research design

- Needs' analysis
- Media pedagogical competencies*
- Flipped classroom
- Action-oriented concept
- Evaluation

*Tulodziecki, Herzig & Grafe (2019)
Study student teachers
Intervention

• Teacher activities

• Learner activities
Teacher activities
Learner activities
Needs’ analysis
Teacher educators

(some) TETCs*

FE Workshop:
Action-oriented activities

evaluation

Study teacher educators
Research design
Workshop

*Foulger et al. (2017)
Study teacher educators – Further education workshop

Didactical design

- technical introduction
- VR
- didactical introduction
- VR
- small group learning activities
- VR
- presentation

Group discussion

Group discussion
Discussion and Future perspectives

• Exploratory study, small sample sizes
• Technical chances and limitations
• Inclusion
• Context of implementing ViLeArn
Contact

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Transform whiteboards and handwritten notes into high-fidelity digital SMART ink.

Convert handwritten artifacts to digital ink

- Capture or import photos
- Perspective correction, glare reduction
- Annotate over scanned documents & receipts
- Quickly select, move, scale groups of digital ink
- Share with others as pdf or jpeg
- Share to a SMART Board with iQ
Results

Paper

SMART InkScan
Use Cases

• **Anyone**
  – who regularly snaps photos of whiteboards, flipcharts, documents, receipts, or sticky notes and needs to edit and share the content
  – who needs the flexibility to productively **work and learn in both they physical and digital domains**

• **Students** in K-12 and higher education
  – who use pen and paper for notes, sketches, brainstorms etc.

• **Teachers** in K-12 and higher education
  – who rotate rooms for lectures and office hours
  – who have many paper artifacts such as posters, flipcharts, and worksheets
Questions
Video for deliberate practice: learning by doing, observing and focusing on change
Practice makes perfect better
Practice alone does not make perfect

<table>
<thead>
<tr>
<th>LEARNING ZONE</th>
<th>PERFORMANCE ZONE</th>
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<tbody>
<tr>
<td>GOAL</td>
<td>to improve</td>
</tr>
<tr>
<td>ACTIVITIES FOR</td>
<td>improvement</td>
</tr>
<tr>
<td>FOCUS ON</td>
<td>what you haven’t mastered yet</td>
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<tr>
<td>MISTAKES TO BE</td>
<td>expected; encouraged</td>
</tr>
<tr>
<td>BENEFIT</td>
<td>prepare for future performance</td>
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The video dilemma

1. Ease of use
2. Security and privacy
3. Storage
4. Giving just the tools is not enough
coaching
collaboration
observe others
self-reflect
observe others

self-reflect
coaching

collaboration
Making the Network for teaching

1. 2500 organizations
2. 30 countries
3. Over 90,000 teachers
"The challenges and advantages of using leading-edge technology in teaching & learning settings?"
MOVING FORWARD: 2020

- **Sustainability** activities linked to European Schoolnet’s Future Classroom Lab – ITE
  - FCL Community
  - Research
  - Training workshops
  - School Innovation Forum
  - MOOC ‘Networked Teacher’ Autumn 2020

- Keep on our ITE mailing list

- Sign up to EUN newsletters:
  - [http://fcl.eun.org](http://fcl.eun.org): FCL newsletter
  - [http://www.eun.org](http://www.eun.org): policy newsletter, teachers newsletter
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