



# **Digitalisation of Apprenticeship Training**

## **Problem Statement**

**Use Case:** A network of Styrian companies in metal and electrical engineering need an online learning platform for their apprentices.

### Research opportunities:

- Apprentices as target group are underresearched, therefore highly interesting:
  - Research on working population in the age group 15 19 is scarce
  - Workplace learning meets educational setting
- Contributing to ongoing research on reflection guidance technologies

## Method RQ 1 & RQ 2

### Mixed-method approach

### **Quantitative method:**

- Questionnaire
- Participants: 72 apprentices

### **Qualitative method:**

- · Semi-structured in-depth interviews
- Participants: six apprentices

#### **Evaluation:**

- Analysis of questionnaires with IBM SPSS
- Descriptive statistics
- Corelative analysis with Mann-Whitney Hugh and Kruskar Wallis tests

### **Research Questions**

- RQ 1: How do apprentices use computers?
- **RQ 2:** How self-efficacious are apprentices with regard to ICT?
- **RQ 3:** How does naming or not naming themselves learners contribute to the apprentices' construction of identity?
- **RQ 4:** What characterises apprentices as a community of practice?
- **RQ 5:** How can reflective learning be effectively promoted via an online learning platform?

## Results RQ 1 & RQ 2

- Primary ICT tool is the smartphone (100%)
- Apprentices use ICT every day
  - average: 2-3 hours
  - 76 % until they fall asleep (weekdays)
- Most important activity: communication
- High level of ICT self-efficacy
- Positive attitude towards computers
- Problem-solving strategies
- No significant gender differences

# Design implications for computer-mediated learning interventions:

- Communicative aspect to capture interest
- Mobile technologies recommended

# What's coming next:

## Method RQ 3 & RQ 4

### Method:

• Semi-structured in-depth interviews

### Approach:

Critical Discourse Analysis

### **Participants:**

- Eight apprentices
- Three supervisors
- Three trainers

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# Method RQ 5

### Research through design

Design of *Rebo* – the chatbot that guides reflection

### **Evaluation phase**

- Analysis of reflective dialogues from learning platform with WordSmith Tools
- Feedback on learning experience and reflection

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