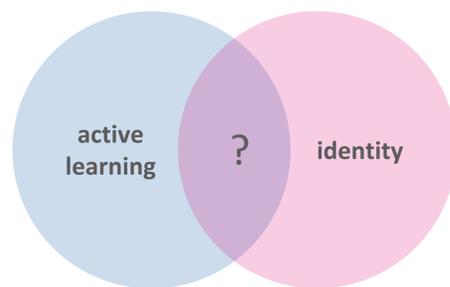


How active learning and identity are interrelated?



Problems in CS at university

Academia:

- recruitment
- retention
- gender gap

Students:

- loss of interest in the computing field and career
- feelings of not belonging
- a notion that a non-CS career would be more fulfilling

Possible solutions

- incorporation of innovative practices into higher education curriculum
- providing a “real-life” and “hands-on” experience where students gain more than just the core software engineering and development skills
- active learning

Research objectives

How is university students' IT-identity formed through innovative learning in IT courses?

- RQ1: What is IT identity for students?
 RQ2: What influences students to pursue a higher education in IT?
 RQ3: How is the process of IT identity formation shaped by group dynamics in LtC settings?
 RQ4: How do LtC classroom settings, including stakeholder and client involvement, influence students' identity formation?

Research framework

Worldview Constructivism

Ontology: Reality is an individual mental construction

Epistemology: Knowledge is constructed by the researcher and not discovered in the world

Aim: present student's IT identity from their perspective

Approach Thematic qualitative study with principles of grounded theory

Method In-depth interviews

Theories

- Social Identity Theory
- Social Theory of Learning
- Communities of Practice
- Constructivism
- Constructionism*

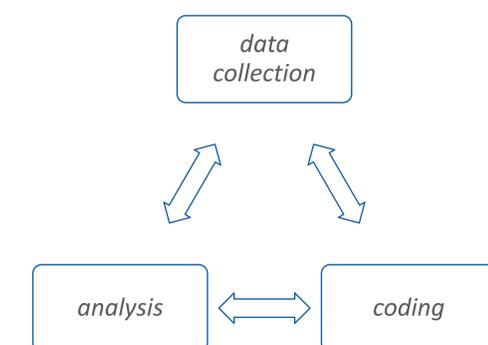
Data gathering

Two courses that use the LtC method:

GameLab at NORD in Steinkjer, Norway

Customer Driven Project at NTNU in Trondheim, Norway

At least 20 in-depth interviews with students will be conducted



Identity as a **sensitizing concept**
(Blumer, 1954)

without the blinders of **hypotheses**

Key words

IT identity
higher education
active learning

Learning through Construction's influence on IT Students' Identity formation

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June 17, 2018

In recent years, there has been significant investment in the incorporation of innovative practices into higher education curriculum. Although there are studies that have provided some insights into IT students' identity development, we need to get a better understanding of how it can be influenced by innovative group learning practices.

The purpose of this research is to provide a better understanding of how university students' IT-identity is shaped through innovative learning during IT courses. This work aims to be a thematic qualitative study with overtones of grounded theory. The analysis will be built on 30 in-depth interviews among students from two study programs; GameLab at NORD University and Customer Driven Project at the Norwegian University of Science and Technology.

It will be an inductive study looking at the process of IT-identity formation in the context of Learning through Construction at University. Research will be data-driven and inductive codes and memos will be created based on the interviews. Concepts will be driven from the data not imposed by literature, nevertheless literature will be used to enhance analysis and to compare and contrast findings of the study.

The research methodology in this study belongs to the domain of exploratory research design. Principles of grounded theory will be used to investigate the process of IT-identity development.