IT Professionals Use of AI and Implications for Education

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Outline

- The planned study
  - IT professionals use of AI
  - Student perspectives
  - Faculty strategies

- Competency Based Education
  - What is it?
  - Relation to the study

- The future

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IT professionals use of AI

Research Questions:

1. How does AI influence work engagement for IT professionals

2. How does AI affect the socio-technical work dynamics for IT professionals?

3. What are the implications of integrating AI on the acquisition and enhancement of professional competencies and the learning processes of IT professionals?

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Interviews with IT Professionals

- 20 in New Zealand, 20 in Sweden and 20 in UK

- Purposeful sampling
    - Defining categories on SFIA role profiles
        - Matrix with
            - Professional skills & skill levels
            - Role titles
        - Aim: at least 10 in each category

    - Variation in demographics

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Interviews with IT Professionals

- Semi-structured interviews

- Sections

  - Demographic information
    - Role/position, Years of experience, Industry/domain, Organisation size, AI technologies used
  - Understanding AI
    - Own perception of AI, specific AI technologies, reasons/motivations, impact, challenges/opportunities
  - Work engagement and AI
    - Own perception of work engagement, of influence, aspects of AI contributing to change, observed differences
  - Socio-technical work dynamics
    - Affect on dynamics, change in responsibilities, examples
  - Professional development and competencies
    - Need for professional development, skills/knowledge becoming more important, training

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Student perspectives

- Perceptions of (generative) AI

- Use of (generative) AI

- Methods
  - Focus groups
  - Case studies

Faculty adaption & teaching strategies

- Strategies for integrating (generative) AI

- Variation of courses

- Methods
  - Interviews
  - Observations

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Competency Based Education
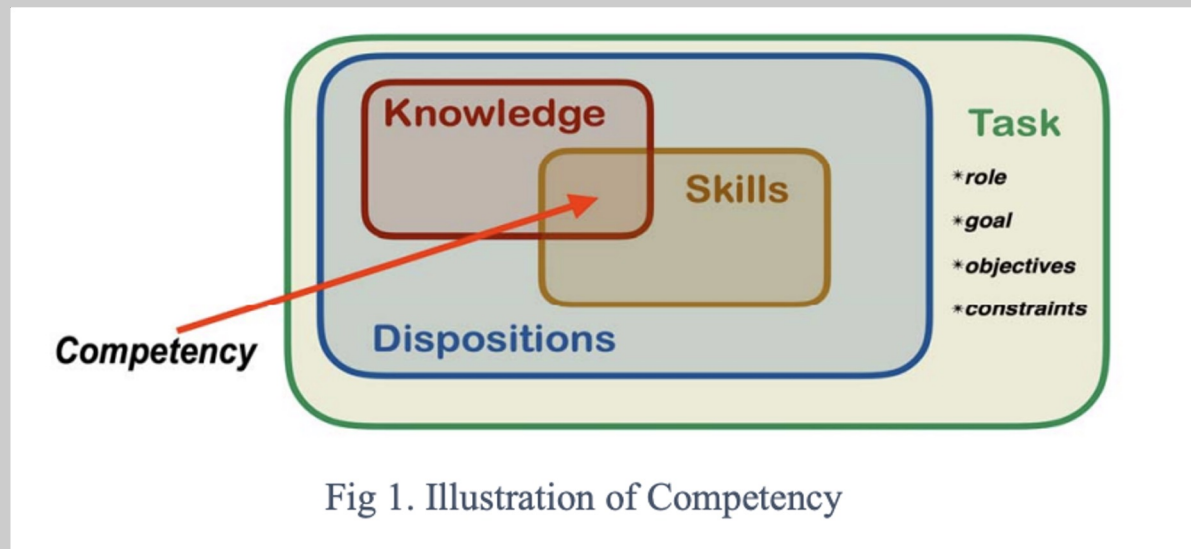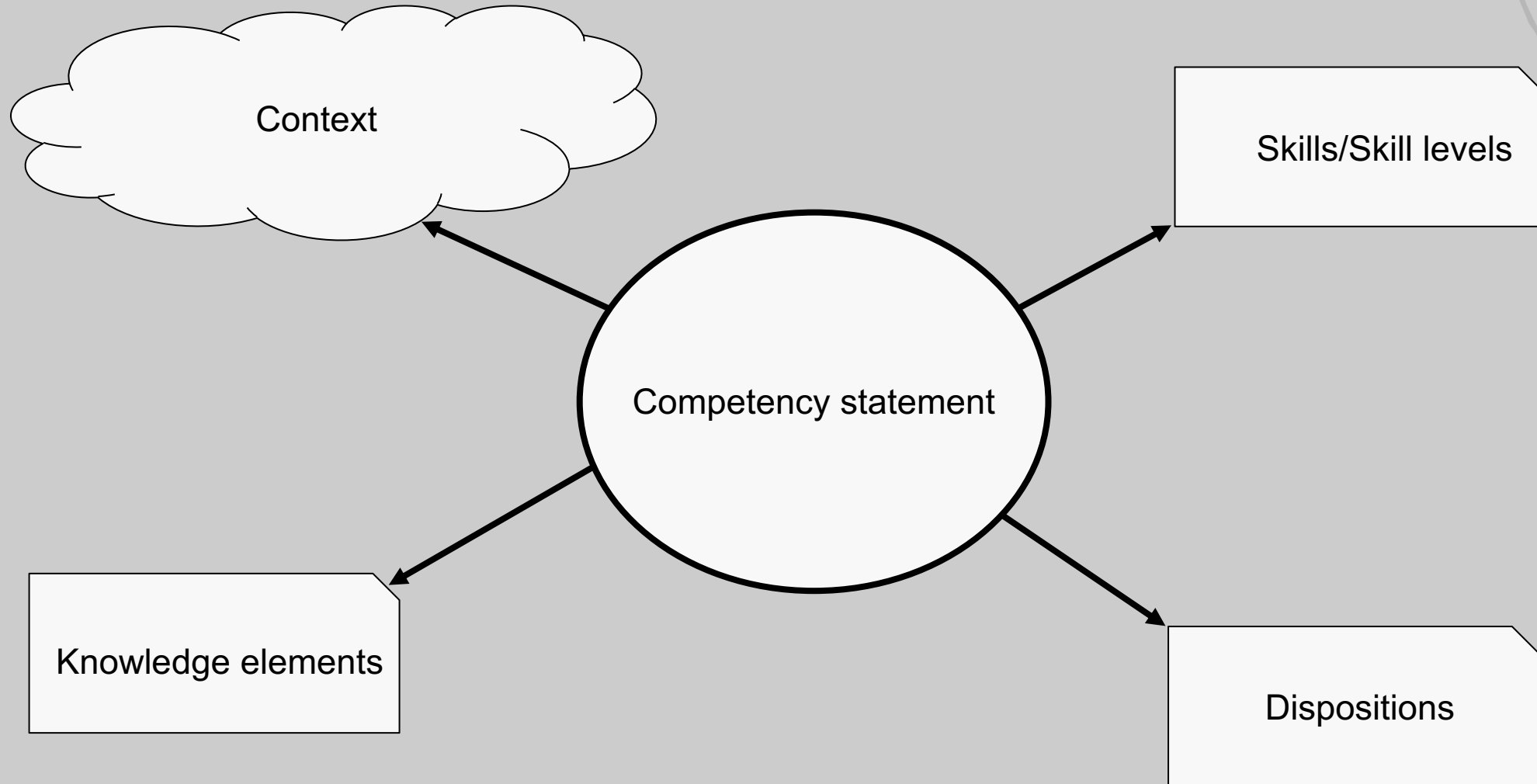
Competency

Fig 1. Illustration of Competency

Competency Based Education

Results & the Future?

Strategies &
Recommendations

Competencies?

Ethical issues?

New curricula?

Education in general?

Pedagogies?

Collaboration?

Open Ended Problems?

Society needs?

Holistic issues?

Other subjects?

Other teachers?

Other professions?

Other students?

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