Assessment of Digital Competences: Necessity and Role in the Modern Workplace

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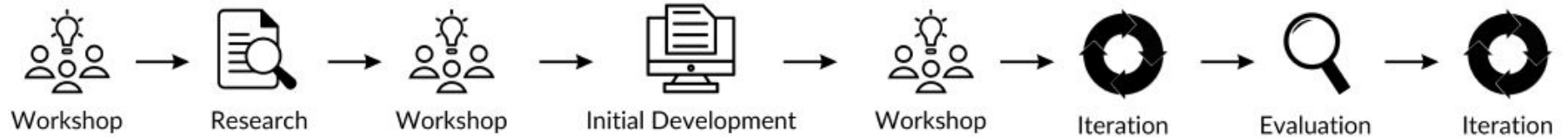[2]Scheer School of Digital Sciences at Saarland University

About us

August-Wilhelm
Scheer **Institut**
Digital Research

- ▫ Independent, non-profit research institute
- ▫ Founded in 2014
- ▫ Focus on innovative technologies and digitalization
- ▫ Over 50 research projects with 150+ partners
- ▫ Interdisciplinary, international team

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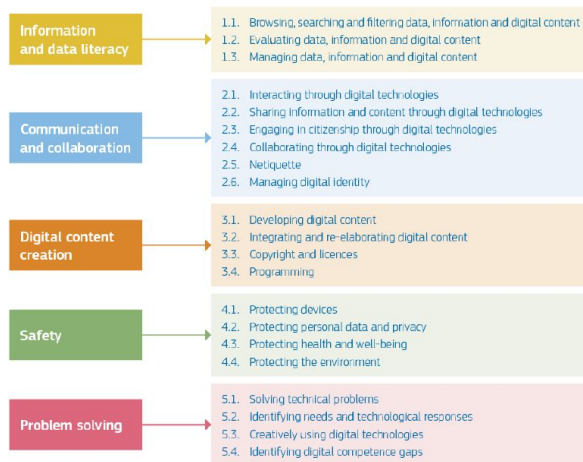
Competence assessment is important to...

- **Keep up with digital transformation:**
  - New technology changes processes at the workplace
  - New technology and new processes change required employee competences

- **Identify and close skill gaps:**
  - Individual development and organizational development

- **Stay competitive:**
  - Enhance efficiency by matching each employee to the best fitting job profile
  - ☐ Best use of human capital

We developed a digital competence assessment instrument

Workshop → Research → Workshop → Initial Development → Workshop → Iteration → Evaluation → Iteration

We based the instrument on 3 frameworks

DigComp 2.2

EntreComp

DELTAS

The instrument covers 5 competence levels

- **Foundation:**
  - Partially solve simple tasks independently, with guidance as needed.

- **Intermediate:**
  - Independently solve well-defined and routine tasks as needed.

- **Advanced**
  - Independently solve various tasks and problems, select optimal solutions, and guide others.

- **Highly specialized:**
  - Independently solve complex, multifactor problems, guide others, contribute to professional practice, and propose innovative ideas and processes.

- **Zero:**
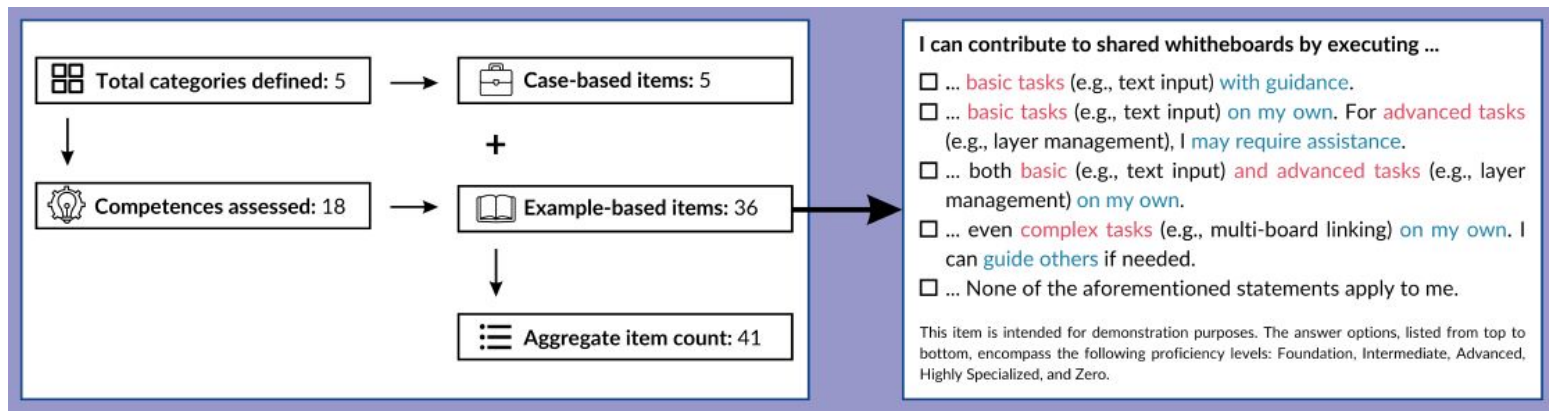 - Meets no requirements of any other level.

The items are based on 2 question formats

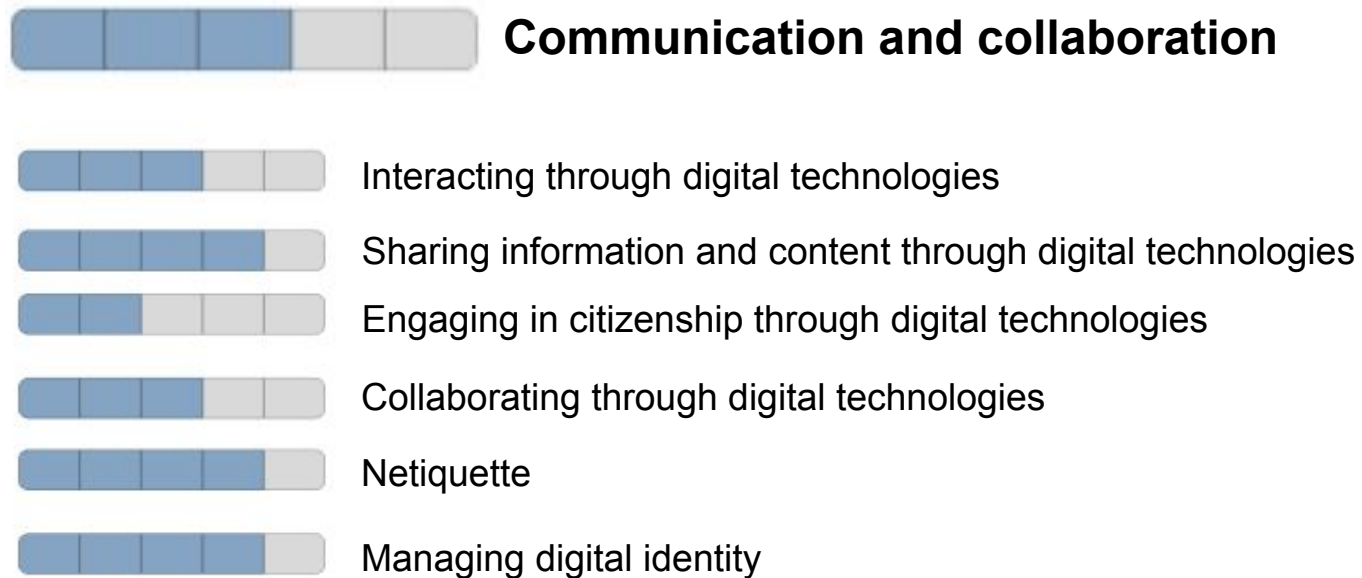- **Example-based questions:**
  - Target competences on a general level but are enriched with company-specific examples to promote understanding and relatedness.

- **Scenario-based questions:**
  - Describe company-specific scenarios requiring each competence in the category.

The outcome is a competence profile

Communication and collaboration

Interacting through digital technologies

Sharing information and content through digital technologies

Engaging in citizenship through digital technologies

Collaborating through digital technologies

Netiquette

Managing digital identity

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There are several use cases for companies

- **Recruitment:**

  - Jobseekers' self-assessment
  - Identify the most suitable candidates

- **Performance management:**

  - Iterative assessment to track employees' competence development
  - Identify company-intern hidden champions

- **Further education:**

  - Identify further development needs
  - Identify targeted further education offers
  - Personalize learning paths

Further research is needed to…

- Validate the instrument

- To scale the instrument

- To extend the instrument to other languages

Any questions?

Thank you for your attention!