Investigating organizational structures and means for effective knowledge sharing and coordination in large agile organizations

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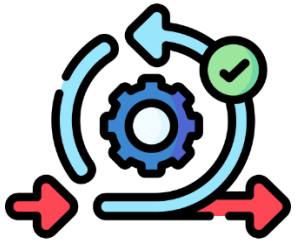
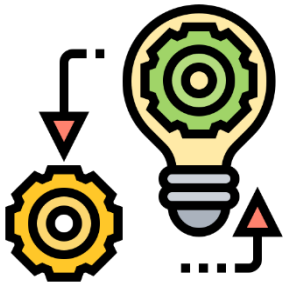
Agenda

- Motivation
- Research Questions
- Methodology
- Initial Findings
- Timeline

Motivation (1/3)



Agile methodologies, initially designed for small teams, have gained popularity in large organizations to enhance flexibility and to increase performance.



However, scaling agile practices for large organizations involves addressing challenges related to communication, coordination, and knowledge sharing.

In large-scale agile organizations, knowledge sharing and coordination play a crucial role for the success.

[1][2][12]

Motivation (2/3)

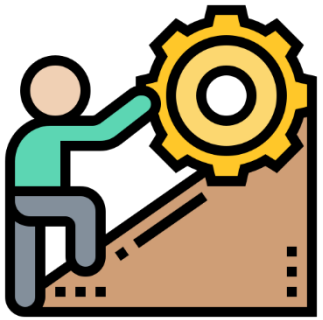
Existing literature investigates the topic of knowledge exchange and coordination in large-scale agile organizations by mainly concentrating on specific organizations and certain aspects of the topic.

However, a broad overview of mechanisms, their usage contexts, challenges and facilitators is limited.

Motivation (3/3)

To fill this research gap, our research aims to shed light on:

Broad overview of the mechanisms used for knowledge exchange and coordination in large-scale agile organizations.



Hindering and required factors for effective knowledge exchange and coordination.

What kind of **mechanisms** can be suitable for organizations in which contexts.

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Research Questions

RQ1	How do knowledge exchange and coordination take place in large agile organizations, which organizational structures and means are used for this purpose?
RQ2	What are the barriers to and requirements for effective knowledge sharing and coordination in large agile organizations?
RQ3	What are the benefits, trade-offs, and application contexts of the organizational structures and means of knowledge exchange and coordination in large agile organizations?

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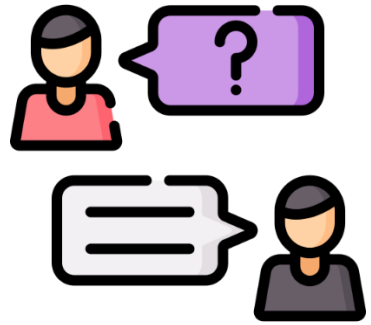
Methodology (1/2)

Literature Review
Google Scholar, ACM Digital Library, Scopus

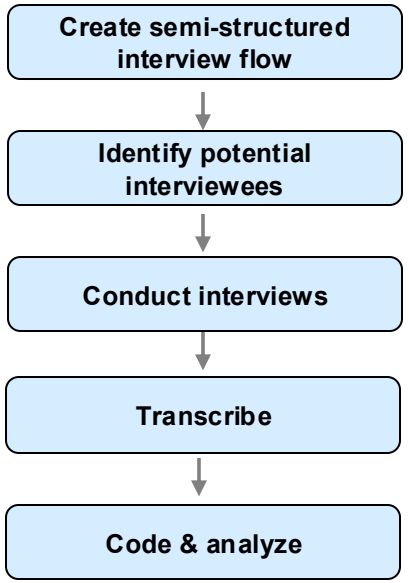
Search string: (agile OR scrum) AND (large OR "large scale" OR scaling OR "inter team" OR distributed) AND ("knowledge sharing" OR "knowledge exchange" OR "knowledge management" OR coordination)

Inclusion criteria:
- Full-text accessible
- In English
- Search string matching the title, abstract or keywords

Exclusion criteria:
- Content not relevant to answer research questions
- Duplicates from different databases



Semi-Structured Expert Interviews



Methodology (2/2)

1. **Data Collection**
   - Literature review
   - Semi-structured expert interviews: Various roles are aimed to be included in the interview process such as software developers, enterprise architects, solutions architects, project managers, product owners, scrum masters, tech leads. (Variety of Voice)
   - Surveys (Depending on the availability of interview partners)
2. **Data Analysis**
   - The interviews will be recorded, transcribed and anonymized.
   - The interviews will be analyzed and codified. After the data analysis, the recordings will be deleted.
   - Means for effective knowledge sharing and coordination within large-scale agile organizations will be identified.
   - Barriers and requirements for effective knowledge sharing and coordination will be investigated.

[5][6][7][8][9]

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Initial Findings

- Knowledge sharing increases the work efficiency and performance, ultimately leading to overall project/product quality. [4] [10] [14] [17]
- Different organizational structures influence the implementation of agile methodologies. Common structures include classical organizations, matrix organizations and large-scale agile frameworks like SAFe (Scaled Agile Framework) and LeSS (Large-Scale Scrum). The choice of structure impacts communication channels, decision-making processes and overall agility. [1] [24]
- Common knowledge sharing and coordination mechanisms include CoPs, trainings, regular stand-up meetings, daily scrums, sprint plannings and restrospectives which bring various pros and cons depending on in which contexts they take place. [11] [18] [20] [21]
- Literature highlights challenges including but not limited to:
  - ✓ Resistance to change [1] [11] [13]
  - ✓ Lack of trust [13] [15]
  - ✓ Customer collaboration [1][11]
  - ✓ Physical distance [4] [15] [16] [19]
  - ✓ Large number of teams [12] [22] [23]
- Ad-hoc conversations are observed to be more effective than scheduled meetings, as scheduled meetings have a tendency to turn into a status reporting session. [12][18]

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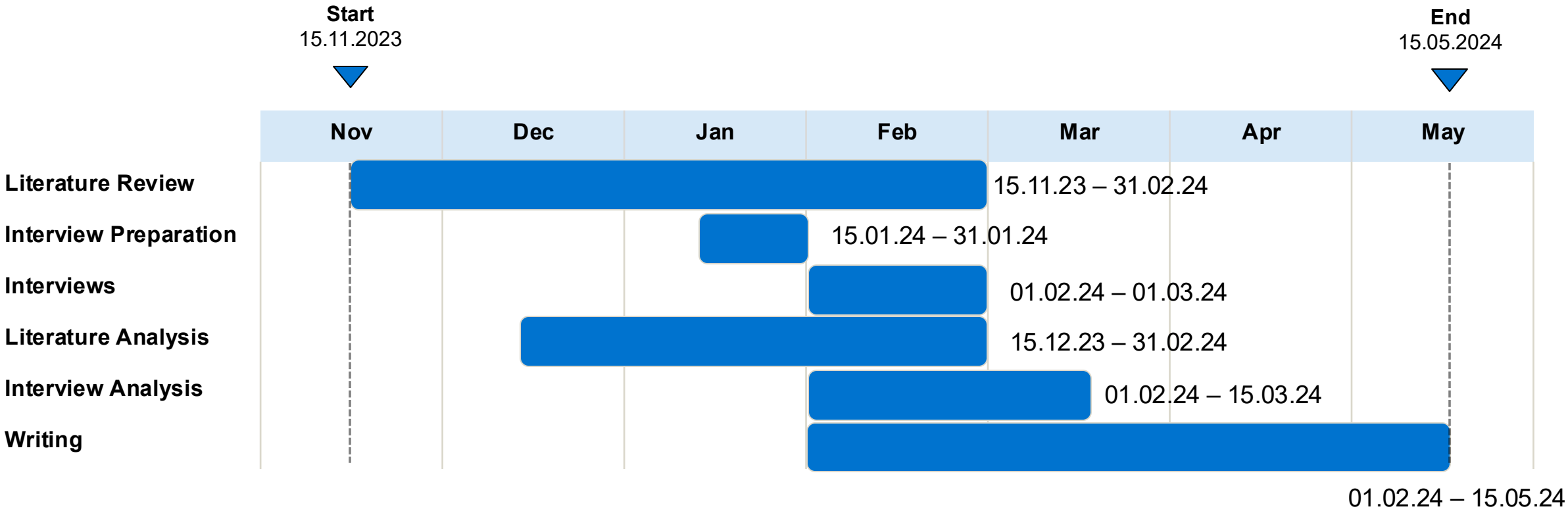

Thank you!

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