Reducing Meeting Overhead in Engineering Teams

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Abstract

This project aimed to reduce meeting overload within an aerospace engineering team by integrating Agile practices and alternative communication methods such as email and project management tools. Two surveys were conducted to evaluate meeting frequency, effectiveness, and opportunities for improvement before and after implementing the proposed strategies. Results indicated a reduction in the average number of meetings attended per week and an improvement in perceived meeting effectiveness. The study concluded that adopting structured Agile-inspired practices and replacing certain meetings with asynchronous communication can improve team productivity and satisfaction.

Introduction

Engineering projects in the aerospace industry demand constant coordination across disciplines. However, the growing number and duration of meetings have reduced focus time and slowed progress. Team feedback indicated that many discussions could be handled through email or digital tools such as Jira and Microsoft Teams. This project aims to enhance communication efficiency by applying Agile principles and integrating digital collaboration methods to maintain effective coordination while minimizing unnecessary meetings.

Literary Review

Agile methodologies emphasize adaptability, collaboration, and continuous value delivery through short, focused interactions. Frameworks like Scrum promote team accountability and communication across disciplines. Research shows that excessive or poorly structured meetings lead to fatigue and reduced productivity, while clear agendas and time limits improve outcomes. Digital tools such as Microsoft Teams and Jira enable asynchronous communication, allowing teams to share updates efficiently and reduce real-time meeting demands. Integrating Agile practices with these tools can help organizations sustain collaboration while preventing meeting overload.

Methodology

- Initial Data Collection:

A baseline survey using Google Forms assessed meeting frequency, duration, agenda clarity, and productivity. The data were analyzed using descriptive statistics and thematic review to identify inefficiencies.

- Intervention:

Based on findings, structured agendas were introduced, meeting frequency was reduced, and asynchronous communication through Jira and Teams was emphasized. Each meeting invitation required a clear purpose, expected outcomes, and a list of essential participants.

- Post-Implementation Evaluation:

A follow-up survey was conducted after 4 to 6 weeks to measure changes in meeting time, tool usage, and perceived productivity. The results were reviewed in team discussions like Agile sprint reviews to assess improvements and define next steps.

Findings

- Meeting Frequency and Duration:

The baseline survey showed that most employees attended 6 to 10 meetings per week, with some attending more than ten, leading to reduced focus time and productivity.

After implementing structured agendas and improved scheduling, the number and duration of meetings decreased. Employees reported that only essential participants were invited, and many project updates were handled asynchronously using Jira and Teams.

This shift allowed engineers to dedicate more time to design and analysis tasks, improving time management and aligning with Agile principles of short, outcome-oriented interactions.

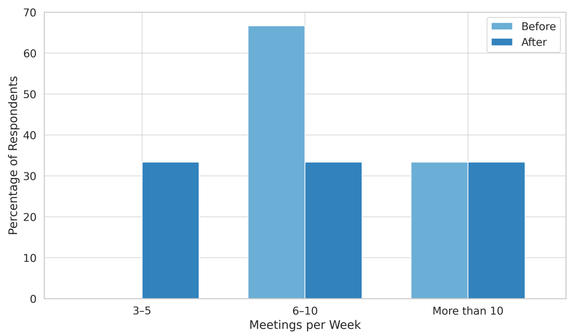


Figure 1
Average weekly meetings

- Perceptions of Effectiveness:

Employee feedback reflected a noticeable improvement in meeting clarity, relevance, and productivity. After the Intervention, participants rated meetings as more goal-oriented, concise, and actionable. Predefined agendas and focused participation increased engagement and accountability.

Table 1
Meeting Effectiveness Ratings

Metric	Baseline Avg	Post-Implementation Avg
Agenda Clarity	3.3	4.3
Participant Relevance	4.3	4.3
Productivity	3.7	3.7

- Preference for Alternative Communication Channels:

A strong shift was observed toward asynchronous tools and digital communication. Before the intervention, 55% of employees preferred using email or project management platforms for updates instead of meetings; after implementation, this increased to 65%.Employees increasingly relied on Microsoft Teams and Jira to share progress, track tasks, and document project milestones—reducing redundant discussions and promoting transparency.

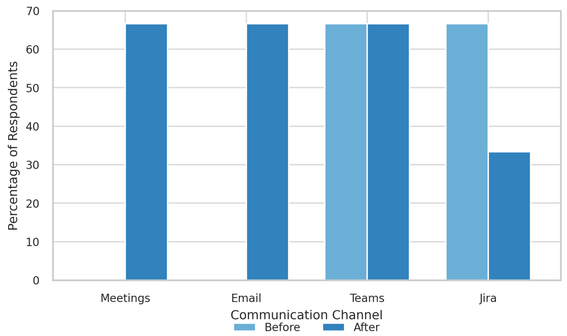
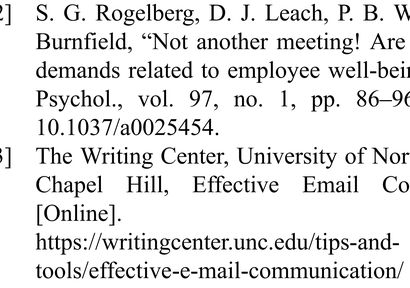


Figure 2
Communication Preferences

Overall, these results demonstrate that introducing Agile-inspired practices and structured communication tools successfully reduced meeting overload, improved clarity, and increased employee satisfaction within the engineering team.

Recommendations

- Maintain short, focused meetings with clear agendas and defined objectives.
- Limit attendance to essential participants and assign a facilitator to stay on track.
- Use project management tools for progress tracking and documentation instead of routine status meetings.
- Reserve email for non-urgent communication and establish clear guidelines for when to use each channel.
- Continue applying Agile practices—such as stand-ups and retrospectives—to promote continuous improvement and adaptability.



Conclusions

The implementation of Agile-inspired strategies and digital collaboration tools successfully reduced meeting overload within the aerospace engineering team. Structured agendas and asynchronous communication led to fewer, more effective meetings and improved time management. Employees reported greater clarity, engagement, and satisfaction. Overall, combining Agile principles with digital tools created a more efficient, focused, and sustainable work environment that supports productivity and organizational success.

References

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