Guidance on working in a team environment, reduce workload and increase productivity

The following provides simple steps to support collaborative work (two members working on a use case) using agile practice and scrum methodology. Aims to emphasize teamwork, equal contribution and effective communication to reduce workload and optimize productivity, introducing software options and tools to facilitate collaboration.

Contents

Software Options

Systems for Data Sharing:

- *Miro.* a visual 'post-it' workspace for teams to manage projects, design ideas and build collaboration.
- *Trello - Melbourne City.* a tool to manage workflow, empowering to ideate, plan, manage and celebrate work achieved during the sprint.

'Collaborating visually to make sense of complex projects' - (Solomon, 2022)

Meetings Applications:

- MS Teams.

- Zoom.

Integrated Development Environments (IDEs):

- Google Colab.

- Deepnote.

- Pycharm.

Scheduling Applications:

Non-Subscription applications:

- When2Meet.

- Polly (MS Teams integrated).

- Calendly.

Subscription applications:

- Monday.com.

- Lomly.

Set Team Ground Rules

Code of Conduct:

- Identify unified rules for the team to increase unity, agreement and productivity.

    Recommendations ([indeed, 2023](#)):

    o **Respectful relationships:** When allocating tasks, prevent conflict and encourage agreement amongst the team.

    o **Communicate openly:** to recognise the importance of speaking honestly and directly.

    o **Constructive feedback:** objective feedback that members can use to improve work quality which is actionable, encouraging members to use objective responses when suggesting alternatives or assigning workloads.

    o **Equality:** regardless of skill or background, aim to treat members fairly to promote equal treatment increasing member satisfaction and reducing conflict.

    o **Celebrate accomplishments:** encourage members to celebrate other's accomplishments, to promote an amicale and positive workplace.

    o **Address conflict immediately:** encourage open communication and resolve conflicts effectively.

    o **Time efficiency:** create appropriate scheduling, prioritisation, and organisation. Aim to set expectations for each member at the onset of tasks and promote streamlined communication between members to support time management.

    o **Task completion:** encourage all members to take accountability and evaluate schedules before accepting responsibilities to promote project success.

    o **Meet deadlines:** set appropriate deadlines and clarify member expectations to prioritise effective scheduling and time management.

Team Communication

MS Teams:

- **Dedicated channel:** create chat for the use case project, centralise discussion, updates and important announcements to this channel.

- **Direct messaging:** to support open communication while respecting work/ life balance and peer boundaries.

- **Knowledge sharing:** achieved through regular code review and peer feedback. Sharing insights and learnings will lead to a stronger project outcome!

- **Send Code Snippets in MS Teams:** use the 'format' icon in the message box and choose 'Code Snippet', see *further reading* for syntax highlighting and auto-indentation tips.

Meetings:

> ***In the first meeting: <u>Set Team Ground Rules.</u>***

- **Set <u>regular</u> meetings:** utilising video/ voice calls (timed), add to calendar (invite all team members) and set reminders. Additionally use Polly (MS Teams integrated) to create a poll for members to identify appropriate meeting times.

  - o Recommendations: *Daily Stand-up* duration 15-minutes, or *Tridaily* (72-hours) duration 30 min-1 hour), to discuss project direction, clarify doubts and define next steps.

- **Practice *active listening*:** during meetings, take notes and ask questions for clarification.

  - o Recommendations: Summarise key points to ensure both members have a shared understanding of requirements and expectations, refer to meeting template.

Meeting Recommendations

Daily Stand-up/ Tridaily:

> ***Using any shared software for collaborative text editing). Review meeting minutes together (in-real time) as the meeting progresses.***
>
> **See Meeting Template*

- **First meeting:** *Set Team Ground Rules.*

- **Highlights:** briefly review previous meeting highlights.

- **Aims:** outline current aims, tick off Trello Card together as tasks are discussed.

- **Project update:** outline progress made on use case, include obstacles faced since last meeting.

- **Set new highlights:** briefly outline progress made, move key points to the next meeting agenda.

- **Set new aims:** briefly outline aims made, move key points to the next meeting agenda.

- **Set completed tasks:** briefly outline completed tasks made, this can be taken from Trello cards.

- **Agenda:** set the next meeting agenda together *(alternate each week who scribes, share responsibility).*

Project Use Case Name MOP Project − [Daily Stand-up or Tridaily] Team Meeting Agenda & Minutes

Date	Day of week, Month day, year	Host	[Enter name, *alternate between team members*]
Time	[Enter time]	Minutes	[Enter name, *alternate between team members*]
Team Member/s	[Enter name/s]	First meeting	[Enter Ground Rules]

Acknowledgement of Country

I acknowledge that I am hosting and recording this meeting from the lands of the <<Wurundjeri >> people who are the Traditional Custodians of the Land, where I am located today. I also acknowledge the Traditional Custodians of the various lands on which you all work today and the Aboriginal and Torres Strait Islander people participating in this meeting. I pay my respects to Elders past, present and emerging and celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of Victoria.

Highlights: *briefly review previous meeting highlights.*

- [Insert highlights]

Aims: *outline current aims (tasks), tick off Trello cards together as tasks are discussed.*

- [Insert aims]

Project update: *outline progress made on use case.*

- [Insert project updates]

Set New Highlights: *briefly outline progress made, move key points to the next meeting agenda.*

- [Insert new highlights]

Set Aims and completed tasks: briefly outline aims made, add responsible person assigned/ data and move key points to the next meeting agenda. Review Completed tasks and

Aim/s	Responsible	Date Due
● [Insert aim]	● [Insert name]	● [Insert due date]
Completed Tasks	**Responsible**	**Date**
● [Insert Task]	● [Insert name]	● [Insert due date]

Set new Agenda: set the next meeting agenda together *(alternate each week who scribes, share responsibility).*

Clean Coding, Ethics & Environments

How to Work Collaboratively in IDEs:
- Code simultaneously with team members using Google Colab.
- Establish effective communication channels within the IDE, such as commenting on specific lines of code.

How to write comments and structure code:
- Use comments to provide context, not just describe what the code is doing.
- Include high-level documentation outlining the project, its purpose, and how to set it up.
- Use linters and formatters to automate adherence to coding standards.

Code Functionality:
- **Functionality:**
  - Briefly describe what the code does or the purpose it serves.
  - Include any key features, algorithms, or methods employed.
- **Reusability:**
  - Discuss how modular the code is and if its components can be easily reused in different parts of the project or in other projects.
  - Mention if the code follows best practices for reusability, like using functions, classes, or modules.
- **Readability:**
  - Evaluate the code's readability by considering factors such as variable/method naming, indentation, and comments.
  - Ensure that the code is easy to understand by someone who did not write it.
- **Maintainability:**
  - Explain how easy it is to maintain and update the code.
  - Consider factors like documentation, code structure, and the use of version control systems.

Styling:
- Address consistency in formatting, spacing, and naming conventions.
- Note if the code adheres to any specific standards adopted by the development team or community.

Publishing:
- **Publishing Use Case:** refer to documents in [*MOP-Code/ datascience/documentation/Use case publishing guide.pdf*], '*Use Case Publishing Guide - Richards & Smith'*

Additional Recommendations

Documentation:
- Store in a single directory, maintain clear and updated documentation throughout the use case project which all members of the team have real-time access to.
- Documentation includes, decisions, technical specifications, user requirements, all in progress working files and meeting minutes.

Retrospective:
- Conduct Regular retrospectives to reflect on teams performance and identify areas for improvement, use feedback to continuously refine the collaboration process.

Respectful Relationships:
- Provide advance written notice (direct message in MS Teams) when rescheduling meetings and support each other's outside unit commitments.
- Acknowledge each other's contributions and support a positive working environment.

Slow Down Between Sprints:

- Data science is about experiments, you are '...attempting to falsify a hypothesis, prove or disprove something...' (Morrison, 2018). The next logical task could look entirely different from the first, depending on the objective aims and outcomes. Examine if goals are achievable within the timeframe (sprint), data science tasks are not features being implemented but a '...conceptual-looking kind of product backlog...' (Morrison, 2018). Remember, the most valuable part of an agile workflow is the part *in-between sprints*!

    'A few ways people try, and fail, to dry out a wet idea: Circulate a draft' - (Morrision, 2021)

Further reading

Add any relevant links or references here.

- Send Code Snippet in a message in Microsoft Teams - (Microsoft, nd)
- On Agile, Trello and the 'dryness of ideas - Towards Data Science (Morrision, 2021)
- Miro Research Design Builds Customer Culture (Solomon, 2022)
- Data Science Teamwork and Critical Success Factors (Pleban, 2021)
- Ground Rules for Teams: Definition and Examples (Indeed, 2023)
- The Scrum Guide (Schwaber, Sutherland 2017)

Author/s

Te' Claire, Harley Ngo. (2023)

References

1. de Cruz, N. (2022, November 24-25). The potential of Miro in building collaborative learning environments [Conference session]. BPS Division of Academics, Researchers, and Teachers in Psychology (DART-P) Annual Conference, United Kingdom. https://cms.bps.org.uk/sites/default/files/2022-11/DARTP%20Annual%20Conference%20Programme%202022.pdf
2. Indeed [Indeed Editorial Team] (2023) *Ground Rules for Teams: Definition and Examples*. https://www.indeed.com/career-advice/career-development/ground-rules-for-teams.
3. Morrison, A. (2021) 'On Agile, Trello, and the 'dryness' of ideas - Towards Data Science,' *Medium*, 6 December. https://towardsdatascience.com/on-agile-trello-and-the-dryness-of-ideas-bf66985796cb.
4. Pleban, D. (2023) *Data science teamwork and critical success factors*. https://dagshub.com/blog/critical-success-factors-for-data-science-teamwork/.
5. Schwaber, K, Sutherland, J. (2017) *The Scrum Guide*. https://scrumguides.org/docs/scrumguide/v2017/2017-Scrum-Guide-US.pdf