

Project planning – Tutorial notes

7COM1079 – Team Research and Development

Dr. John Noll

University of Hertfordshire

CAUTION

Remember our values:

1. Respect.
2. Professionalism.
3. Honesty.

Professionalism requires you to do your share and make meaningful contributions to the development of your group's deliverables.

If you don't set your identities on Git and Trello correctly, your contribution will not be recorded.

- ▶ Set your Git `user.email` property to your `herts.ac.uk` email address.
- ▶ Set your Trello “display name” to your Herts login ID (the part of your email address before the ‘@’).

Rules of Engagement for Tutorials

1. **NO** direct messages to the module team.
2. **NO** questions about recordings: a recording of the tutorial will be posted to Canvas eventually.
3. **NO** off-topic questions. Stick to questions about the tutorial, unless and until the tutors ask for general questions.
4. **NO** questions about timetables. The module team cannot change your timetable. Instead, you need to read the timetable FAQ on the MSc Canvas site.

Introduction

Many of you now have group Trello boards.

All of you will eventually have a group Trello board.

So, how do you figure out what cards to create?

Tasks

- ▶ Cards represent *tasks*.
- ▶ Tasks produce *deliverables*.
- ▶ Tasks that don't produce something are *waste*.

So, start by identifying the deliverables.

Identify Deliverables

The coursework specification already enumerates the deliverables:

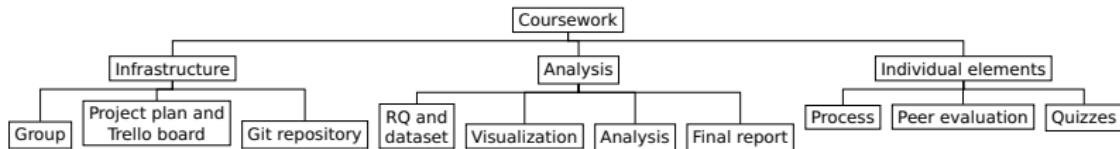
1. Group.
2. Project plan and Trello board.
3. Bitbucket repository.
4. Research question and dataset.
5. Visualization.
6. Analysis.
7. Final report (optional).

Notes:

There are also individual elements (process, peer evaluation, quizzes).
These are not part of your *group* project plan.

Initial Work Breakdown Structure (WBS)

We can organize these deliverables into an initial *Work Breakdown Structure* (WBS):



This WBS is too coarse however: the deliverables are too big and involve multiple things.

Each task needs to be something *one* person can do in less than a week.

So, we need to elaborate the WBS by “breaking down” these deliverables into smaller ones.

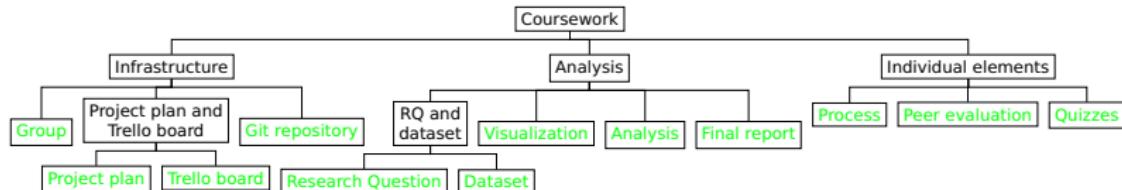
We do this using *noun phrase identification*.

Refined WBS, cont.

To do this, identify the *nouns* in the deliverable description (this is called *noun phrase identification*):

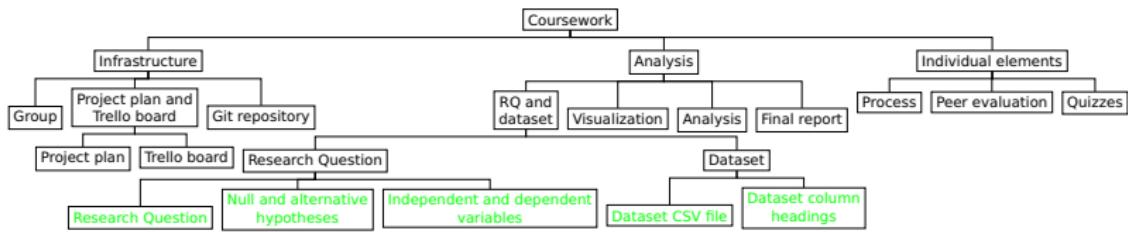
- ▶ *Group*
- ▶ *Project plan*
- ▶ *Trello board*
- ▶ *Git repository*
- ▶ *Research question*
- ▶ *dataset*
- ▶ *Visualization*
- ▶ *Analysis*
- ▶ *Final report*
- ▶ *Process*
- ▶ *Peer evaluation*
- ▶ *Quizzes*

This yields the next level of decomposition:



Refined WBS, cont.

At this stage, we really don't have enough information to elaborate any of these deliverables further, except for the *Research Question*:



The other components can be elaborated after the corresponding lectures.

Identifying Tasks

The *leaves* of this WBS identify *deliverables*: these are the *nouns* (“What”) of your project.

Deliverables are produced by *tasks*: these are the *verbs* (“How”) of your project.

Never, EVER create tasks that don't have deliverables! Tasks that don't produce anything are wasted effort.

Tasks are performed by group members: these are the “Who” of your project.

Identifying Tasks, cont.

Tasks are described by *verb phrases* that convey what needs to be done to produce the corresponding deliverable:

Deliverable	Task
Group	<i>Form</i> group
Project plan	<i>Create</i> project plan
Trello board	<i>Create</i> Trello board
Git repository	<i>Create</i> Git repository
Research question	<i>Formulate</i> research question
Null & alt. hypotheses	<i>Write</i> null and alt. hypotheses
Ind. & dep. variables	<i>Identify</i> ind. and dep. variables
Dataset CSV file	<i>Download</i> dataset as CSV
Dataset column headings	<i>Identify</i> dataset column headings
Visualization	<i>Create</i> visualization
Analysis	<i>Do</i> analysis
Final report	<i>Write</i> final report

Create Task Cards

- ▶ Each task gets *one* and *only* one card.
- ▶ Add task cards to the *Backlog* column.
- ▶ No duplicate cards are allowed!
- ▶ Never, **EVER** create task cards that don't have a deliverable.

A_group_999 | Trello

https://trello.com/b/CARLDC0v/agroup999

Most Visited Google News UK Mail - John Noll - Ou... 7COM1079-0901-2... HertsHub - Home https://moduleplan... Library and Compu... Pulse Connect Secure Other Bookmarks

Trello Workspaces Recent Starred Templates Create

A_group_999 Workspace visible Board

Backlog

- Write null and alt. hypotheses
- Identify independent and dependent variables
- Download dataset as CSV
- Identify dataset column headings
- Formulate research question
- Create visualization
- Do analysis
- Write final report
- Submit peer evaluation
- + Add a card

Doing

- List actions
- + Add a card

Review

- + Add a card

Done

- Form group
- Create project plan
- Create Trello board
- Create Git repository
- + Add another list
- + Add a card

Automation

- When a card is added to the list...
- Every day, sort list by...
- Every Monday, sort list by...
- Create a custom rule ↗
- Move all cards in this list...
- Archive all cards in this list...
- Archive this list

Name the Cards with Verb Phrases

A_group_999 | Trello

https://trello.com/b/CARLDC0v/agroup999

Most Visited Google News UK Mail - John Noll - Ou... 7COM1079-0901-2... HertsHub - Home https://moduleplan... Library and Compu... Pulse Connect Secure Other Bookmarks

Trello Workspaces Recent Starred Templates Create

Board Automation Power-Ups Filter Share

Backlog Enter a title for this card... + Add card Write null and alt. hypotheses Identify independent and dependent variables Download dataset as CSV Identify dataset column headings Formulate research question Create visualization Do analysis Write final report Submit peer evaluation

Doing + Add a card

Review + Add a card

Done + Add another list

+ Add a card

Form group

Create project plan

Create Trello board

Create Git repository

+ Add a card

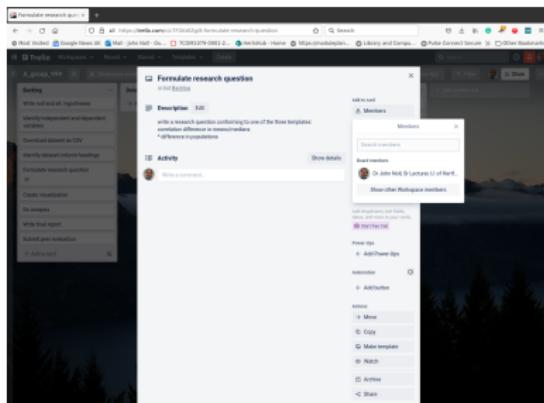
Write a *Meaningful* Description

The screenshot shows a Trello card creation dialog box over a dark background image of a forest at sunset. The dialog has a title bar 'Formulate research question' and 'in list Backlog'. It contains a 'Description' section with instructions: 'write a research question conforming to one of the three templates:' followed by three bullet points: '* correlation', '* difference in means/medians', and '* difference in populations'. Below this are 'Save' and 'Cancel' buttons, and 'Formatting help' and 'Show details' links. To the right is a sidebar with various options: 'Members', 'Labels', 'Checklist', 'Dates', 'Attachment', 'Cover', 'Custom Fields' (with a note about dropdowns, text fields, dates, etc.), 'Power-Ups' (with '+ Add Power-Ups'), 'Automation' (with '+ Add button'), 'Actions' (with '→ Move', 'Copy', 'Make template', 'Watch', 'Archive', and 'Share' buttons), and a 'Search' bar at the top right.

Assign *Responsible Parties*

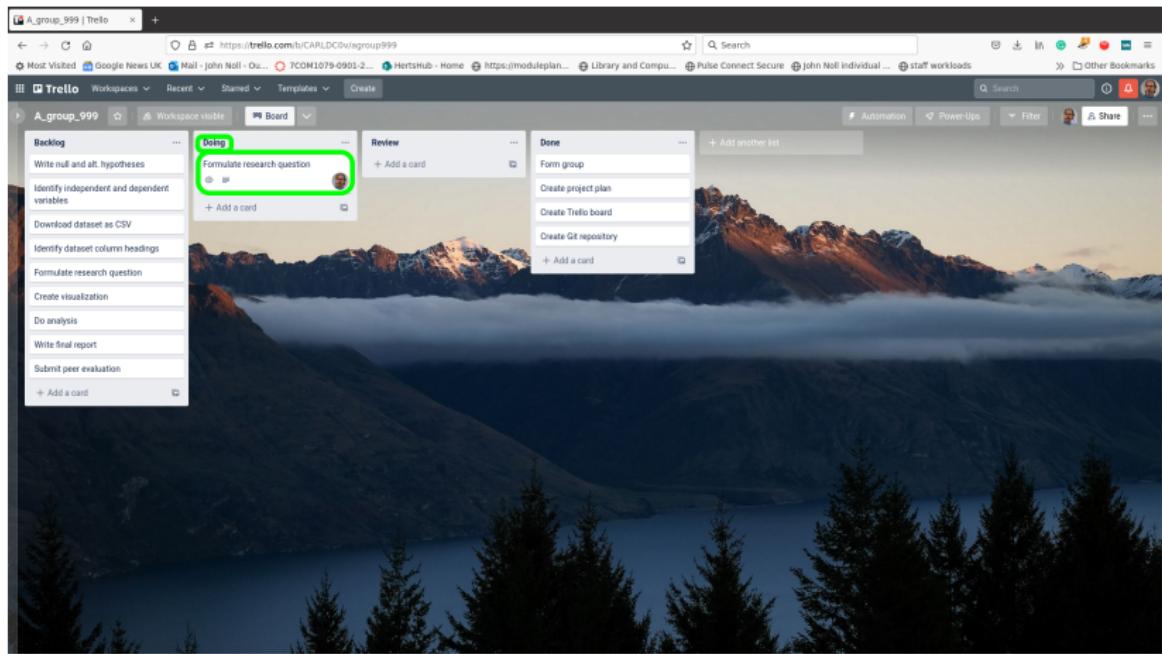
Rules:

1. Every (task) card needs a member.
2. Only *one* member per card!
3. That person is responsible for ensuring the task is finished.
4. The responsible party does not have to perform the task: he or she can delegate to another group member.

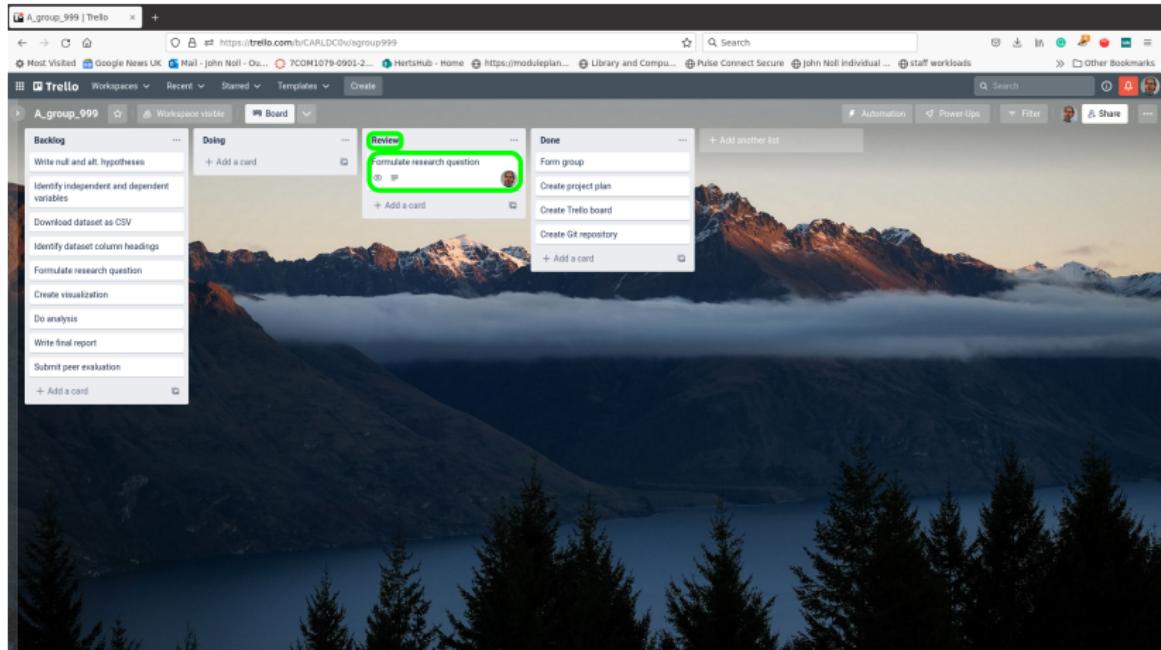


Do a task!

When the responsible party (or the person assigned by the responsible party) is ready to perform a task, he or she moves it to the “Doing” column:



Review “done” tasks, cont.



Review “done” tasks

When the responsible party thinks the task is “done”, he or she should:

1. Move the card to the “Review” column.
2. Add someone to be the reviewer.
3. The reviewer needs to check the task deliverables to be sure they are actually *Done*:
 - 3.1 Read text documents to be sure they make sense, are spelled correctly, and use correct grammar.
 - 3.2 Check YAML files using `validate_yaml.R`.
 - 3.3 Test R scripts using `Rscript` from the command line.
4. If the deliverable passes all the checks, the reviewer should move the card to the “Done” column.

If the deliverable does not pass all the checks, the reviewer should move the card to the “Doing” column. Trello will notify the responsible party via email.

Done!

A_group_999 | Trello

Most Visited Google News UK Mail - John Noll - Ou... TCOM1079-0901-2... HertsHub - Home https://moduleplan... Library and Comp... Pulse Connect Secure john Noll individual ... staff workloads > Other Bookmarks

Search

Trello Workspaces Recent Shared Templates Create

Board

Backlog

Doing

Review

Done

+ Add another list

Form group

Create project plan

Create Trello board

Create Git repository

Formulate research question

+ Add a card

Automation Power-Ups Filter Share

Write null and alt. hypotheses

Identify independent and dependent variables

Download dataset as CSV

Identify dataset column headings

Formulate research question

Create visualization

Do analysis

Write final report

Submit peer evaluation

+ Add a card

The screenshot shows a Trello board titled "A_group_999". The board has three lists: "Backlog", "Doing", and "Review". The "Doing" list contains several cards with tasks like "Write null and alt. hypotheses", "Identify independent and dependent variables", etc. A context menu is open over one of the cards in the "Doing" list, specifically the "Formulate research question" card. The menu options include "Form group", "Create project plan", "Create Trello board", "Create Git repository", and "Formulate research question". The "Formulate research question" option is highlighted with a green circle.

Summary

1. Create a group board.
2. Add *four* columns:
 - a. Backlog
 - b. Doing
 - c. Review
 - d. Done
3. Create a work breakdown structure.
4. Create exactly *one* card per *leaf* in the WBS.
5. Add exactly *one* member to a card.

And...

Submit the *correct* URL.

Questions?