Applied Data Science Project

L16 - Project communication tools I

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Pillars

Design	Manage	Develop	Communicate

Internal communication

- Centralize communication and reduce the number of exchanged emails

- Keep all team members involved in the project

- Raise awareness on the choices

- Help to develop a team vision, all members are a part of a team

Internal communication

App for communicating internally

We presented it as a development app because it is mostly utilized while developing and keeping the whole team up to date with resolutions and development choices

External communication

- Keep a scientific mindset when communicate: a project of Applied Data Science is still science

- Start from an objective, pose a research question, propose a methodology that is tested in a controlled experiment with an analysis of the results

- Same story, different narratives according to the audience: scientists, innovators, or public consumptions

Formats

- Slides with plots, charts, and tables

- Reports (deliverables and papers) with plots, charts, and tables

Recall, in this course we cover the technical communication

Plots, charts, and tables are complementary tools

- Slides **with** plots, charts, and tables

- Reports (deliverables and papers) **with** plots, charts, and tables

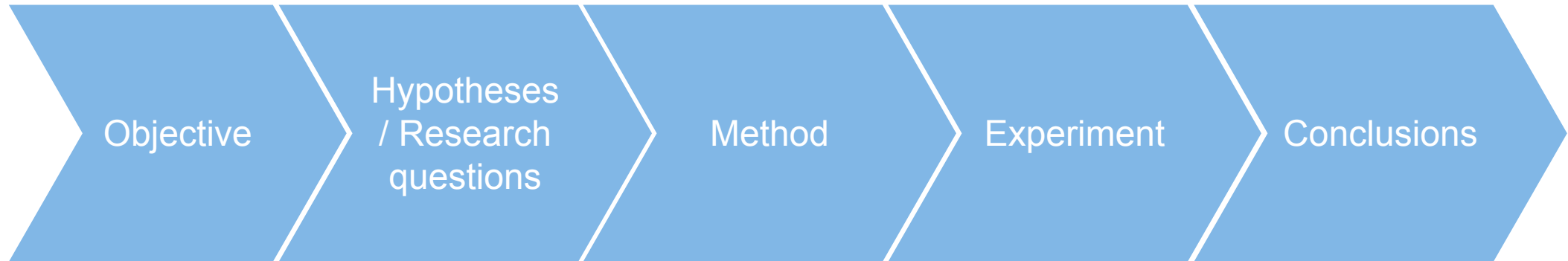does it mean that plots, charts and tables are complementary only and cannot come along?

<u>Yes</u>, better to put them into a context by either providing a concise communication or a longer format of text

Slides

Slide outline

Objective → Hypotheses / Research questions → Method → Experiment → Conclusions

Objective

Why the project is conducted?

Who are the stakeholders?

Can the project be linked to one of the United Nations Sustainable Development Goals?

Usually, this is one slide to set the scene and give an idea of what you're proposing for what

Hypotheses and research questions

A hypothesis is written as a statement

A research question is written as a question

They differ in the writing style, but they are utilized interchangeably to set the challenge being addressed in the project

For instance:
RQ: Would language model contribute to have language translator?
H: Language models will improve language translator quality

Usually, this is in 1 slide and you can put a diagram/picture to summarize the challenge

Method

When we refer to a Method of a Data Science project we refer to:
- Algorithm, Model, Architecture
- Tools utilized for the implementation

Short summary of how the method achieves the previous steps

Prefer utilizing diagrams for describing a method

Usually, this is the bulk of the presentation and you may dedicate 2 slides to the algorithm, model or architecture and 1 to summarize the utilized tools

Experiment

It reports the controlled experiment to validate the method to address the objectives defined in the project

It reports:
- dataset
- experiment configuration
- quality assessment

Usually, we have 1 slide for the dataset, 1 slide for the experiment configuration and 2 slides for the quality assessment

It is important to report tables of the quality assessment and illustrate the overall assessment task

Conclusions

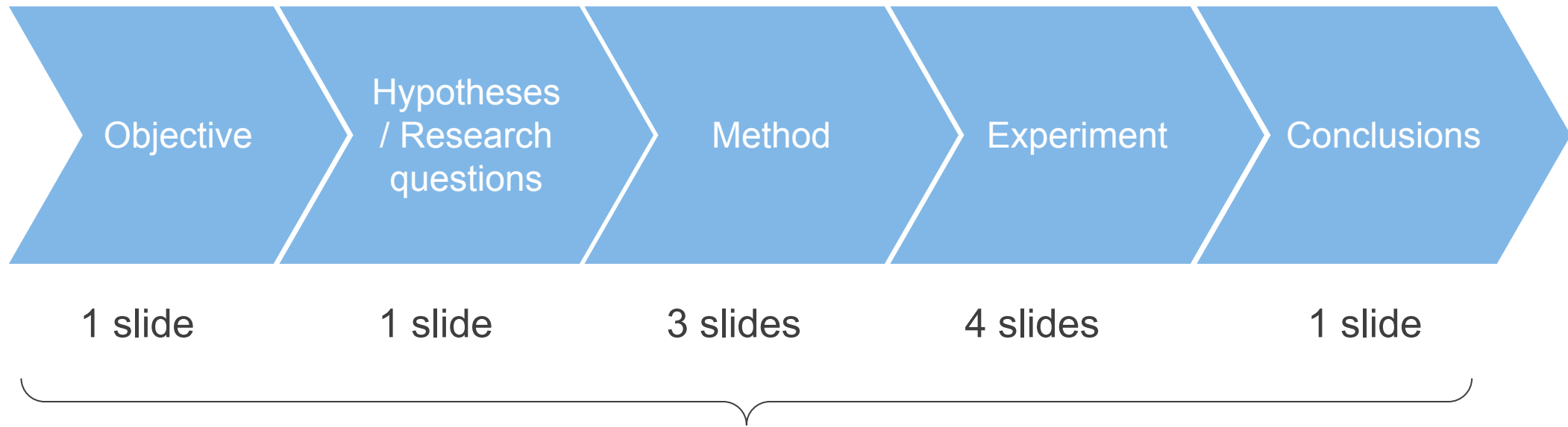State the objective (1 sentence)

State the method (1 sentence)

State why the method is effective to reach the objective (1 sentence)

Usually this is 1-slide content that you can decide to leave for the QA session to guide the attendees to think deeper on the content and eventually pose questions

Overall

Objective	Hypotheses / Research questions	Method	Experiment	Conclusions
1 slide	1 slide	3 slides	4 slides	1 slide

There is an additional slide for landing and another with your/team references at the end

Slide aesthetics

Aesthetics plays a little role in communication, better to exploit it

Start from a slide template that you either took from your employer, university, or that you edited yourself

Once picked, do not touch it anymore, and keep it consistent throughout the entire presentation

If it's science, can I add code?

Depends on the target

If you're sharing your experience with developers, then you might want to utilize some snippets of code

If your audience is people who attend TED Talk style events, then not at all

Length

It depends on the target audience

General rule of thumb: 1 slide requires around 1 minute for presenting

15 minutes is a reasonable slot to have people awake during presentation (unless you like having people sleeping during your presentation)

15 minutes =~ 15 slides including the landing slide

Quality checkpoints before sealing your presentation

- Does it make sense to me in the first place?

- Would make sense to the reader with a given background? The background of the expected audience?

- Are there any ambiguous terms, acronyms, definitions?

- Are there any statements and argument not supported by data either collected or computed?

- Are there any lengthy and verbose arguments?

- Are the main concepts illustrated with diagrams and charts?

- Are the results being presented with tables and or charts?

App for editing

Powerpoint

Google Slides

Both applications allow to collaborative edit the making of a presentation

Consider to export your presentation when complete to PDF to maximize the portability

Thank you for your attention.

Questions?

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