



# Detailed overview of learning outcomes per topic block in RBT courses

### A: Research design

A1: Students will be able to make an overview of the general research design.

UPSKILLS Moodle course First steps into scientific research
https://upskillsproject.eu/project/scientific\_research/Movetia/ReLDI courses:
https://phil.openedx.uzh.ch/courses/course-v1:PHIL+Movetia101+2046/info (in English)
https://phil.openedx.uzh.ch/courses/course-v1:PHIL+ReLDI101+2018/info (in BCMS)

- A2: Students will be able to create a suitable research design for the specific topic of interest.
- A2.1: Students will be able to formulate questions and hypothesis in terms of variables
- A2.2: Students will be able to formulate H0 and H1
- A2.3: Students will be able to select optimal research techniques, and create corresponding data sources
  - Experimental paradigms (e.g., elicitation, judgements, forced-choice, self-paced reading)
  - Developing and exploiting databases and corpora (e.g., manual data annotation, computing inter-annotator agreement)
- A2.4: Students will be able to select and implement the optimal data analysis method
- A2.5: Students will be able to infer theoretical consequences from the specific data analysis results.
- A3: Students will be able to adapt a research design to the available research infrastructures.
- A3.1 Students will be able to select of optimal research techniques, select and create corresponding data sources (see also A2.3)
  - data compilation, data analysis, data archiving (e.g., XML, XLS), data reuse;
  - understanding, selecting and performing optimal statistical tests and models.



## A4: Students will be able to report on their performed research in accordance with standards and conventions in the field.

A4.1 Students will be able to select and implement different presentation modes for research reporting (short oral presentation, poster, squib, report, article etc.)

A4.2 Students will be able to implement established procedures and conventions in research reporting, such as:

- the ordering of thematic units in an article/squib/report,
- organization of the presentation,
- amount of text and graphical items on a poster (including text size),
- amount of text and graphical items on a slide/handout,
- terminology,
- citing conventions.

#### B: Infrastructures & techniques

B1: Students will be able to identify and apply suitable infrastructures & techniques for obtaining literature

[GENERAL-PURPOSE REPOSITORY] ResearchGate, Googlescholar, Academia.edu, [DISCIPLINARY REPOSITORY] lingbuzz, Rutgers Optimality Archive.

- B2: Students will be able to identify and apply suitable infrastructures & techniques for obtaining, sharing and managing data
- B2.1: Students will understand what research infrastructures are, and the main concepts around **data interoperability**, such as **data**, **metadata** and **standards**.
- B2.2: Students will be able to identify suitable platforms and repositories.
  - Understand the difference between **general-purpose repositories** and **disciplinary repositories** 
    - [GENERAL-PURPOSE REPOSITORY] Zenodo, FigShare
    - [DISCIPLINARY REPOSITORY] CLARIN, The Language Archive
- B2.3: Students will be able to identify, collect, create and/or use relevant data for their research projects
  - Search, identify and select relevant corpora from language resources platforms and repositories hosting them
    - [DISCIPLINARY REPOSITORY] CLARIN, ELRC-SHARE, the Language Archive.
  - Cite linguistic data sets as appropriate.



- Deposit their research data in a **certified repository** of their choice and select an appropriate licence for sharing their data
- Understand the **versioning** policy of the repository
- Use online survey tools

#### B2.4: Students will be able to create a data management plan

- Understand the data lifecycle
- Understand how to generate data, analyse and handle it
- Understand the **legal and ethical issues** around data generation and use (e.g. licensing, GDPR compliance, anonymisation, the importance of FAIR principles and Open Access).
- Know how to securely store and backup their research data
- Know how to document their workflows and what metadata to use to describe the nature of the data based on existing standards.
- Know what data needs to be destroyed, preserved in a data repository and made available for reuse.

## B3: Students will be able to identify and apply suitable infrastructures & techniques for analysing data.

- B3.1: Students will be able to select and use softwares for statistical tests
- B3.2: Students will be able to select and use softwares for conducting a phonological analysis (e.g. Praat)
- B3.3: Students will be able to select and use concordancers for the analysis of corpora