i.	**Name of the course** Language acquisition in Slavic: Obtaining, representing and analysing empirical data in linguistics (Field-work, building corpora, running experiments)
ii.	**Level of the course** MA, PhD (can also be taught to advanced BA students)
iii.	**Workload** 6 ECTS
iv.	**Institution** University of Graz
v.	**Course instructor(s)** Boban Arsenijević

vi. Brief course description

The course enhances the problem-solving and data-analysis skills, thus preparing the students for a wide range of possible careers. It also provides the students with first-hand scientific research experience.

The course consists of three parts. During the introductory part, the central concepts of research in language acquisition are introduced (stages in language acquisition, aspects of language acquisition, central questions), mostly through the discussion of handbook chapters and articles (app. 80% of each class). Simultaneously, a very basic sketch or general research design is introduced and some preliminary discussion is held about testing the predictions of various theories (app. 20% of each class).

The second part focuses on the same two topics as the first part (language acquisition and research). Now 80% is dedicated to research design. During this part, most preparatory work is done by attending the Movetia course *Introduction to research in linguistics: theory, logic, method* and coming up with an own research project. Students are also introduced to the Slavic collections of CHILDES (a CLARIN K-Centre), the corpus of child and child-directed language. In addition, students start sketching their research report based on the research-report template. The remaining 20% are reserved for the discussion of research articles (and, where necessary handbook chapters) which are deemed instrumental given the specific projects selected by the students.

The third part is entirely dedicated to the students' research projects. The students submit their preliminary drafts which are read before class and discussed in class. The lecturer also provides written feedback. After this, the students hold oral presentations of their projects. At the end of the course, the students submit their final research reports.

vii. Research related subject
Language acquisition, specifics of language acquisition f Slavic languages

viii. Data the students work with
Data obtained from corpora, data obtained from human subjects

ix. Topics

A: Research design

A1: General research design

[Teaching materials]
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: Adapting the general research design to the specific topic of interest

- Different stages in acquisition, ages, populations, various types of controls / baselines
- Selecting the aspect of acquisition, defining measurable phenomena
- Specifying the methods of empirical access, i.e. distributing between corpus and experimental methods
- Distinguishing between demographic, social and linguistic data and measures, in the design of the research.

A2.1: Formulation of questions and hypothesis in terms of variables

A2.2: Formulation of predictions of H0 and H1

A2.3: Selection of optimal research techniques, selection and creation of corresponding data sources
- Experimental paradigms (e.g., elicitation, judgements, forced-choice)
- Developing and exploiting databases and corpora (e.g. manual data annotation)

A2.4: Identifying the optimal data analysis method
A2.5: Inferring theoretical consequences from the specific data analysis results
A3: Adapting the research design to the available research infrastructures
Familiarization with CHILDES, identifying available research networks, adapting the RD to the limitations of these infrastructures
A3.1 Selection of optimal research techniques, selection and creation of corresponding data sources (see also A2.3) ● data compilation, data analysis; ● understanding, selecting and performing optimal statistical tests and models
A4: Research reporting
Identifying optimal formats for the representation of the acquired data in terms of factors and effects
A4.1 Presentation modes for research reporting (short oral presentation, report, article etc.)
A4.2 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 slide/handout, ● terminology, ● citing conventions
B: Infrastructures & techniques
B1: For obtaining literature
[GENERAL-PURPOSE REPOSITORY] ResearchGate, Googlescholar, Academia.edu, [DISCIPLINARY REPOSITORY] lingbuzz
B2: For obtaining, sharing and managing data
Familiarity with CHILDES and other acquisitional corpora
B2.1: Definition of research infrastructures, and the main concepts around **data interoperability**, such as **data**, **metadata** and **standards**
B2.2: Platforms and repositories
B2.3: Identifying, collecting, creating and/or using relevant data for research projects

<table>
<tr><td>

Searching, identifying and selecting relevant corpora from language resources platforms and repositories hosting them
Citing linguistic data sets as appropriate.
Familiarity with online survey tools

</td></tr>
<tr><td>B3: For analysing data</td></tr>
<tr><td>ANOVA and linear mixed model tests. Tests for categorical non-binary variables</td></tr>
<tr><td>B3.1: Softwares for statistical tests</td></tr>
<tr><td>B3.2: Concordancers for the analysis of corpora</td></tr>
<tr><td>C: Subject-specific topics</td></tr>
<tr><td>C1: How does language develop in an individual?</td></tr>
<tr><td>C2: What factors determine this process?</td></tr>
<tr><td>C3: Innate vs. acquired language competences</td></tr>
<tr><td>C4: Aspects of atypical language development</td></tr>
</table>

x.   Learning outcomes

<table>
<tr><td>A: Research design</td></tr>
<tr><td>A1: Students will be able to make an overview of the general research design.</td></tr>
<tr><td>
[Teaching materials]
UPSKILLS Moodle course First steps into scientific research
https://upskillsproject.eu/project/scientific_research/
Movetia/ReLDI courses:
PHIL: Movetia101 Introduction to research in linguistics: theory, logic, method
https://phil.openedx.uzh.ch/courses/course-v1:PHIL+Movetia101+2046/info (in English)
ReLDI-Project: ReLDI101 Introduction to Research Methodology in Linguistics
https://phil.openedx.uzh.ch/courses/course-v1:PHIL+ReLDI101+2018/info (in BCMS)
</td></tr>
<tr><td>A2: Students will be able to create a suitable research design for the specific topic of interest.</td></tr>
</table>

Students will be able to describe and recognize different stages in language development and match them with approximate age;
Students will be able to define measurable phenomena for a particular aspect of language acquisition;
Students will be able to design studies of the development of a particular phenomenon in language acquisition (e.g. verbal aspect, palatalization, clitic second).

A2.1: Students will be able to formulate questions and hypotheses 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).

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.

Students will be familiar with CHILDES,
Students will be able to identify available language acquisition research networks,
Students will be able to adapt the RD to the limitations of these 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;
- 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.

Students will be able to select the optimal format for the representation of the development of a particular language acquisition phenomenon.

A4.1 Students will be able to select and implement different presentation modes for research reporting (short oral presentation, 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/report,
- organization of the presentation,
- 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, ROA.

B2: Students will be able to identify and apply suitable infrastructures & techniques for obtaining, sharing and managing data.

Students will be able to extract data from CHILDES.

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.

B2.3: Students will be able to identify, collect, create and/or use relevant data for their research projects
- Searching, identifying and selecting relevant corpora from language resources platforms and repositories hosting them
- Citing linguistic data sets as appropriate.
- Familiarity with online survey tools.

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

Students will be able to use ANOVA and linear mixed model tests.

B3.4: Students will be able to select and use concordancers for the analysis of corpora.

C: Subject-specific learning outcomes

C1: Students will be able to discuss how language develops in typically developing individuals.

C2: Students will be able to evaluate arguments for and against treating certain linguistic capacities innate.

C3: Students will be able to distinguish between typical and atypical language development and to identify the type of the atypical ones.

C4: Students will be able to identify typical traits of the acquisition of (case-rich) Slavic languages.

xi. Overview of evaluation	
Rubric	Weighing
Participation incl. homework (initiative, forward-thinking, problem solving, critical thinking, organisation, time management)	30%
Outputs based on the final research report ● oral presentation ● final written report	70%

xii. Reading materials

1. Sauerland, U., Grohmann, K., Guasti, M., Andelković, D., Argus, R., Armon Lotem, S., et al. (2016). How do 5-year-olds understand questions? Differences in languages across Europe. FIRST LANGUAGE, 36(3), 169-202 [10.1177/0142723716640236].

2. Anđelković, D. and M. Mirić. Distribution of verbal overgeneralizations in the Serbian Corpus of Early Child Language. Psihološka istraživanja 20 (2), 291–310.

3. Savić, Maja, Maša Popović and Darinka Anđelković. 2017. Psihologija 50 (4), 427-444. 10.2298/PSI160921007S.

4. Pavlinušić Vilus, Eva and Gordana Hržica.2022. Omissions and Overgeneralizations of Reflexive Clitic in the Acquisition of Reflexive Constructions in Croatian as L1. Časopis Instituta za hrvatski jezik i jezikoslovlje, 48 (1), 151-169. 10.31724/rihjj.48.1.7

5. Ilić, Tatjana. 2008. What does the acquisition of the involuntary state construction in Serbo-Croatian have to tell us about the ability to represent A-Chains in 3-year-olds? MS, University of Hawaii at Manoa

6. Helen, Goodluck., Danijela, Stojanovic. 1996. The Structure and Acquisition of Relative Clauses in Serbo-Croatian. Language Acquisition, 5(4):285-315. 10.1207/S15327817LA0504_2