

#### ΠΑΡΑΔΟΤΕΟ ΕΡΓΟΥ

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**Ενότητα Εργασίας (ΠΕ1):** «Ανάπτυξη, Οργάνωση και υλοποίηση ξενόγλωσσου Προγράμματος Διδακτορικών Σπουδών Τμήματος Ψυχολογίας» **Τίτλος Παραδοτέου (Π1.3):** Ψηφιακό Εκπαιδευτικό Υλικό (Συνοπτικά Περιγράμματα Σεμιναριών) (Αγγλική Έκδοση)

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Πρόγραμμα Ανθρώπινο Δυναμικό και Κοινωνική Συνοχή



# PHD SEMINARS

# **Outline and Suggested Activities**



Με τη συγχρηματοδότηση της Ευρωπαϊκής Ένωσης





## Περιεχόμενα

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### SEMINAR "Contemporary Issues in Psychological Inquiry"

Outline

#### 1. Introduction to Research Planning and Design (8 hours)

#### **Topics Covered:**

- Overview of different research methodologies in psychology (quantitative, qualitative, and mixed methods)
- Importance of systematic planning in research
- Ethical considerations in psychological research (e.g., informed consent, confidentiality)

#### Suggested Activity:

Research Design Exercise: PhD students will present their project's research question and asked to outline the research design, including methodology, sampling, and ethical considerations. They will present their design and receive peer feedback.

#### 2. Gender Issues in Research (8 hours)

#### **Topics Covered:**

- Understanding how gender biases influence research design and interpretation
- Strategies for mitigating gender biases in research
- Incorporating gender-sensitive approaches in research design (e.g., participant diversity)

#### Suggested Activity:

Bias Identification Workshop: PhD students will review their and their peers research projects and identify potential gender biases in their methodologies, sampling, or data interpretation. They will suggest improvements to make the research more genderinclusive.

#### 3. Systematic Literature Review (8 hours)

#### **Topics Covered:**

- Fundamentals of conducting a systematic literature review
- Techniques for searching, evaluating, and synthesizing research literature
- Using reference management software (e.g., Zotero, EndNote)

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Με τη συγχρηματοδότηση της Ευρωπαϊκής Ένωσης





#### **Suggested Activity:**

Literature Mapping: Each PhD student will choose a topic relevant to their own research and create a systematic literature review outline. They will be required to identify key studies, themes, and gaps in the literature.

#### 4. Resources at the University for Doing Research (6 hours)

#### **Topics Covered:**

- Overview of available university resources (e.g., library databases, research software, archives)
- Accessing university databases for research materials
- Information about research grants and funding opportunities

#### Suggested activity:

Database Exploration: Students will be guided to use the university's digital resources, such as PsycINFO and PubMed. They will use these databases to conduct the systematic literature review (see activity above), and discuss how these resources will aid in their research process.

#### 5. Design of Digitalized Psychological Tasks and Tests (9 hours)

#### **Topics Covered:**

- Principles of designing digital psychological assessments
- Introduction to tools and software for digitalized testing (e.g., E-Prime, Qualtrics, PsyToolkit)
- Ethical considerations in digital testing

#### Activity:

Digital Task Design: PhD students will design psychological task (e.g., a cognitive or behavioral task) relevant to their research using digital tools such as PsyToolkit. They will present their digital task, explaining its purpose and how it collects data.





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### SEMINAR "Quantitative Research in Psychology: Field Methods and Data Analysis Software"

#### Outline 1. Introduction to Field Research (3 hours)

#### **Topics Covered:**

- Introduction to field research in psychology
- Overview of quantitative research methods used in the field (surveys, experiments, observational studies)
- Comparison with lab-based research
- Key challenges and advantages of conducting field research

#### Suggested Activity:

*Group discussion: "Challenges and Benefits of Field Research" – Each group presents one challenge and one benefit of conducting quantitative field research.* 

#### 2. Designing and Implementing Quantitative Research Studies (6 hours)

#### **Topics Covered:**

- Developing research questions and hypotheses for field studies
- Choosing appropriate quantitative research designs (e.g., cross-sectional, longitudinal, experimental)
- Operationalization of variables
- Sampling methods and considerations in field research
- Pilot testing in field research

#### Suggested Activity:

*Case study analysis: Design a quantitative research study in small groups, including defining variables, population, and methods.* 

Present pilot study ideas for peer feedback.

#### 3. Statistical Analysis Techniques for Quantitative Data (6 hours)

#### **Topics Covered:**

- Descriptive statistics: Central tendency, dispersion, and frequency distributions
- Inferential statistics: Hypothesis testing, confidence intervals, t-tests, ANOVA, correlation, regression
- Common statistical assumptions (e.g., normality, homoscedasticity)
- Dealing with missing data and outliers

#### **Suggested Activity:**

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Hand calculation of basic statistical tests (t-test, correlation) using a small dataset. Lab session: Practice basic data analysis with SPSS (provided dataset).

#### 4. Introduction to Data Analysis Software (SPSS, JASP, R, AMOS, EQS) (6 hours)

#### **Topics Covered:**

- Overview of statistical software (SPSS, JASP, R, AMOS, EQS)
- Introduction to SPSS: Importing datasets, running descriptive statistics
- Introduction to JASP: Simple analysis and report generation
- Introduction to R: Basic coding and running analyses
- AMOS and EQS for Structural Equation Modeling (SEM)

#### Suggested activity:

Hands-on session: Using SPSS and JASP for basic statistical analysis (descriptive statistics, t-tests, correlations)

Intro to R scripting: Write basic code to run regression analysis on a dataset.

#### 5. Applying Software Tools for Statistical Analysis (6 hours)

#### **Topics Covered:**

- Advanced statistical tests (factor analysis, MANOVA, logistic regression)
- Practical application of software to analyze quantitative field data
- Dealing with complex datasets (e.g., large samples, longitudinal data)

#### Activity:

Lab session: Apply software (SPSS or JASP) to analyze a given dataset, including running a multiple regression and factor analysis.

Group exercise: Compare and contrast the ease of use and output from SPSS, JASP, and R.

#### 6. Ethical Considerations in Field Research (3 hours)

#### **Topics Covered:**

- Ethical principles in field research (informed consent, confidentiality, participant rights)
- Ethical challenges specific to field research (e.g., vulnerable populations, deception)
- Handling data ethically (storage, sharing, transparency)
- The role of REC UOWM (Research Ethics Committee)

#### Suggested activity:

Case study: Analyze a controversial field research case and identify the ethical issues.

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Create an informed consent form for a hypothetical field study. **7. Data Visualization (3 hours)** 

#### **Topics Covered:**

- Importance of data visualization in research reporting
- Common types of graphs and charts for quantitative data (bar charts, histograms, scatterplots)
- Introduction to data visualization tools (e.g., ggplot2 in R, Tableau, SPSS visualizations)
- Best practices in creating clear and impactful visualizations

#### Suggested activity:

Lab session: Create visualizations using SPSS and ggplot2 in R. Group critique of visualizations: Identify effective and ineffective data presentation.

8. Writing and Presenting Quantitative Research Findings (3 hours)

#### **Topics Covered:**

- Structuring quantitative research reports
- APA style for presenting statistical results
- Best practices for presenting findings in oral presentations
- Use of visual aids in presentations (charts, tables, figures)

#### Suggested activity:

*Peer review of draft research reports: Provide feedback on clarity, structure, and data presentation.* 

Practice oral presentations: Students present their research findings using visual aids.

#### 9. Seminar Summary and Final Presentations (3 hours)

#### **Topics Covered:**

- Review of key seminar topics
- Integrating quantitative methods with field research challenges

• Open discussion: Current trends in quantitative field research

#### Suggested activity:

Final presentations: Students present their quantitative field research projects (real or hypothetical) using the software of their choice. Group feedback session.





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### SEMINAR "Qualitative Research in Psychology: Field Methods and Data Analysis Software"

#### Outline

#### 1. Introduction to Field Research in Qualitative Psychology (3 hours)

#### **Topics Covered:**

- Introduction to qualitative research methods.
- Field research methodologies: ethnography, case study, grounded theory.
- Naturalistic settings in psychology: challenges and benefits.

#### **Suggested Activity:**

Class Discussion: PhD students share experiences with qualitative data or research studies they have read. As a group, analyze these studies in terms of the methodology used, identifying the type of field research and the naturalistic settings involved.

#### 2. Conducting Interviews, Focus Groups, and Observations (6 hours)

#### **Topics Covered:**

- How to conduct effective interviews (semi-structured, unstructured).
- Focus groups: dynamics, moderation techniques, and challenges.
- Observational techniques: participant vs. non-participant observation.

#### Suggested Activity:

Group Exercise: In groups, students design an interview guide for a small qualitative study (e.g., exploring attitudes towards mental health in students). Fieldwork Assignment: Conduct a mock interview with a peer and transcribe the data.

### 3. Ethical Considerations in Qualitative Field Research (3 hours)

#### **Topics Covered:**

- APA guidelines for ethical research in psychology.
- Informed consent in qualitative research.
- Confidentiality, data security, and the ethical treatment of sensitive topics.

#### Suggested Activity:

Case Study Analysis: Students analyze ethical dilemmas in case studies of qualitative research. They will discuss strategies to handle these dilemmas.

4. Introduction to Qualitative Data Analysis: Coding and Thematic/Content Analysis (6 hours)





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#### **Topics Covered:**

- Overview of coding techniques: open coding, axial coding, selective coding.
- How to develop themes and categories from qualitative data.
- Differences between content analysis and thematic analysis.

#### Suggested activity:

*Coding Exercise: PhD students will receive a set of qualitative interview transcripts and practice coding the data using open coding.* 

#### 5. Introduction to Qualitative Data Analysis Software: NVivo and Atlas.ti (6 hours)

#### **Topics Covered:**

- Overview of qualitative data analysis software: NVivo, Atlas.ti.
- How to import, organize, and code qualitative data in NVivo.
- How to apply queries and generate reports in NVivo/Atlas.ti.

#### Activity:

Hands-on Practice: Students will receive a tutorial on how to use NVivo or Atlas.ti and will practice importing data, coding, and generating visualizations.

#### 6. Advanced Coding and Thematic Analysis Using Software (6 hours)

#### **Topics Covered:**

- Advanced techniques for coding and querying data in software.
- Generating and visualizing thematic patterns in data.
- Using memoing and linking data in software tools.

#### Suggested activity:

Software Workshop: Students continue working on a pre-selected dataset, using advanced coding strategies (e.g., axial coding, hierarchical codes) in NVivo/Atlas.ti.

#### 7. Data Visualization for Qualitative Research (3 hours)

#### **Topics Covered:**

- Visualizing qualitative data: best practices and tools.
- Creating word clouds, mind maps, and network diagrams.
- Presenting themes and relationships visually using NVivo/Atlas.ti.

#### Suggested activity:

*Workshop: Students will create data visualizations from their coded data using NVivo/Atlas.ti and present them to the class.* 

8. Reporting Qualitative Research Findings (3 hours)

#### **Topics Covered:**









- How to structure qualitative research reports and papers.
- Presenting themes, quotes, and data analysis clearly and effectively.
- Writing discussion and conclusion sections in qualitative research.

#### Suggested activity:

Writing Assignment: Students write a research report based on their coding and thematic analysis exercises. They will include data visualizations and discuss their findings.

#### 9. Presenting Qualitative Research Findings (3 hours)

#### **Topics Covered:**

- Effective communication of qualitative findings.
- Creating PowerPoint presentations and using data visualizations.
- Handling audience questions and defending research methodology.

#### Suggested activity:

Presentation Practice: Each student will present their research findings from previous activities to the class, followed by a Q&A session. Feedback will focus on the clarity of findings, use of data visualizations, and defense of methodology.





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