

ELT501 - SCIENTIFIC RESEARCH METHODS - Sosyal Bilimler Enstitüsü - Yabancı Diller Eğitimi Ana Bilim Dalı

General Info

Objectives of the Course

This course aims to equip students with a comprehensive understanding of both fundamental and advanced research methods used in second language studies, enabling them to make informed and critical decisions at all stages of the research process. Students will develop skills in formulating research questions, selecting appropriate research designs (e.g., survey, experimental, case study, action research), designing and implementing data collection instruments, and analyzing and interpreting data. The course also fosters competence in preparing research reports in accordance with academic writing conventions and in conducting systematic literature reviews. Ultimately, the course seeks to enable participants to become not only “consumers” of research but also independent, ethically responsible “producers” of research.

Course Contents

Week 1 – Introduction and Book’s Approach to Research What is research, how this book approaches it, characteristics of a good researcher, author’s methodological stance, book structure, and further reading. Week 2 – Qualitative, Quantitative, and Mixed Methods Research Qualitative–quantitative distinction, quantitative research, qualitative research, mixed methods research, author’s paradigmatic stance. Week 3 – Quality Criteria, Research Ethics, and Other Issues Quality criteria for research, research ethics, research questions and hypotheses, pilot study, research log, and data management. Week 4 – Longitudinal versus Cross-Sectional Research Definition and purpose of longitudinal research, applications in applied linguistics, main design types, longitudinal qualitative research, longitudinal mixed designs, choosing between designs, quantitative longitudinal data analysis. Week 5 – Quantitative Data Collection Sampling in quantitative research, questionnaire surveys, experimental and quasi-experimental studies, collecting quantitative data via the Internet. Week 6 – Qualitative Data Collection Definition of qualitative data, sampling in qualitative research, ethnography, interviews, focus group interviews, introspective methods, case studies. Week 7 – Qualitative Data Collection (Continued) Diary studies, research journals, purpose and design of mixed methods research. Week 8 – Midterm Exam Covers Weeks 1–7. Week 9 – Mixed Methods Research and Classroom Research Compatibility of research paradigms, main types of mixed methods designs, why methods are not mixed more often, origins and types of classroom research. Week 10 – Methods in Classroom Research Classroom observation, mixed methods classroom research, difficulties and challenges in classroom research, action research. Week 11 – Quantitative Data Analysis I Computerized data analysis and SPSS, preparing data for analysis, data reduction and reliability analysis, key statistical concepts. Week 12 – Quantitative Data Analysis II Descriptive statistics, comparing two groups (t-tests), comparing more than two groups (ANOVA), correlation, non-parametric tests, advanced statistical procedures. Week 13 – Qualitative Data Analysis Main principles of qualitative data analysis, qualitative content analysis, grounded theory, computer-aided qualitative data analysis (CAQDAS). Week 14 – Data Analysis in Mixed Methods Research Data transformation, extreme case analysis, typology/category development, multiple level analysis, computer-aided mixed methods data analysis. Week 15 – Project Presentations and Final Evaluation Presentation of student research designs, discussion, and overall course evaluation.

Recommended or Required Reading

Research Methods in Applied Linguistics: Quantitative, Qualitative, and Mixed Methodologies – Zoltán Dörnyei (2007), Oxford University Press. An Introduction to Second Language Research Methods: Design and Data – Dale T. Griffee (2012), TESL-EJ Publications, Berkeley, CA. Second Language Research: Methodology and Design – Alison Mackey & Susan M. Gass (2021, 3rd ed.), Routledge. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches – John W. Creswell & J. David Creswell (2018, 5th ed.), Sage Publications.

Planned Learning Activities and Teaching Methods

This course is structured as a blend of theoretical instruction and applied practice to ensure that graduate students fully grasp the scientific research process across all its stages (design, data collection, analysis, and reporting). The objective is not only for students to learn methodological approaches but also to experience integrating these approaches into their own research problems. To this end, the course encompasses conceptual discussions, case studies, hands-on data analysis, and academic writing processes. Core Methods and Activities: Theoretical Lectures and Conceptual Discussions: Comprehensive examination of quantitative, qualitative, and mixed-methods research designs alongside their epistemological foundations. Applied Data Analysis: Practical sessions utilizing data analysis software (e.g., SPSS, R, MAXQDA, NVivo) through lab work or applied assignments. Research Proposal Development: A step-by-step process where students construct the foundational draft for their thesis or independent research project throughout the semester. Methodological Review of Literature: Critical analysis of published academic papers, focusing specifically on their research methodologies, data collection tools, and strategies for validity and reliability. Workshops and Peer Review: Interactive sessions where students present their research drafts to receive constructive feedback from both the instructor and their peers.

Recommended Optional Programme Components

To better understand the course content, students are required to study the relevant section each week before attending class.

Instructor’s Assistants

No teaching assistant is assigned to this course.

Presentation Of Course

Face to face

Dersi Veren Öğretim Elemanları

Assoc. Prof. Dr. İhsan Ünalı

Program Outcomes

1. Can define research, explain the key characteristics of a good researcher, and summarize different methodological approaches.
2. Can explain the differences between qualitative and quantitative research, define mixed methods research, and articulate their own paradigmatic stance.
3. Can list quality criteria in research, explain basic ethical principles, and formulate research questions and hypotheses.
4. Can distinguish between longitudinal and cross-sectional research and evaluate the strengths and weaknesses of both designs.
5. Can describe sampling methods in quantitative research and plan questionnaire, experimental, and quasi-experimental data collection techniques.
6. Can explain sampling methods in qualitative research and apply ethnography, interview, and focus group techniques.
7. Can explain the process of collecting diary and research journal data and discuss the purpose and design of mixed methods research.
8. Can evaluate the compatibility of different research paradigms and identify types of classroom research.
9. Can apply classroom observation techniques and explain the steps of action research.
10. Can prepare data for analysis using SPSS or similar software and conduct data reduction and reliability analysis.
11. Can interpret descriptive statistics and apply t-tests, ANOVA, correlation, and non-parametric tests.
12. Can explain the main principles of qualitative data analysis and apply content analysis and grounded theory methods.
13. Can perform data transformation, explain multi-level analysis, and apply category development techniques.

Weekly Contents

Order	PreparationInfo	Laboratory TeachingMethods	Theoretical	Practise
1	Study pages 3-21 from the textbook.	Lecturing, discussions, group work	Introduction to Research - Definition of research, researcher profile, overview of key methodological approaches.	
2	Study pages 24-47 from the textbook.	Lecturing, discussions, group work	Qualitative, Quantitative, and Mixed Methods Research	
3	Study pages 48-75 from the textbook.	Lecturing, discussions, group work	Quality, Ethics, and Preparation in Research	
4	Study pages 78-92 from the textbook.	Lecturing, discussions, group work	Longitudinal and Cross-Sectional Research	
5	Study pages 95-123 from the textbook.	Lecturing, discussions, group work	Quantitative Data Collection	
6	Study pages 124-151 from the textbook.	Lecturing, discussions, group work	Qualitative Data Collection	
7	Study pages 147-163 from the textbook.	Lecturing, discussions, group work	Qualitative Data Collection (Continued) & Mixed Methods Research	
8			Midterm exam	
9	Study pages 32-45 from the textbook.	Lecturing, discussions, group work	Mixed Methods and Classroom Research	
10	Study pages 178-191 from the textbook.	Lecturing, discussions, group work	Methods in Classroom Research	
11	Study pages 176-206 from the textbook.	Lecturing, discussions, group work	Quantitative Data Analysis I	
12	Study pages 213-230 from the textbook.	Lecturing, discussions, group work	Quantitative Data Analysis II	
13	Study pages 242-262 from the textbook.	Lecturing, discussions, group work	Qualitative Data Analysis	
14	Study pages 268-273 from the textbook.	Lecturing, discussions, group work	Mixed Methods Data Analysis	

Activities	Weight (%)
Ara Sınav	40,00
Final	60,00

Yabancı Diller Eğitimi Ana Bilim Dalı / İngiliz Dili Eğitimi (Yüksek Lisans-Tezli)(İngilizce) X Learning Outcome Relation

	P.O. 1	P.O. 2	P.O. 3	P.O. 4	P.O. 5	P.O. 6	P.O. 7	P.O. 8	P.O. 9	P.O. 10	P.O. 11	P.O. 12
L.O. 1						5	4	1				4
L.O. 2						5	4	1				4
L.O. 3						5	4	2				4
L.O. 4						5	4					4
L.O. 5						5	4	2				4
L.O. 6						5	4					4
L.O. 7						5	4					4
L.O. 8						5	4		4			4
L.O. 9						5	4		1			4
L.O. 10						5	4		2			4
L.O. 11						5	4		3			4
L.O. 12						5	4		1			4
L.O. 13						5	4					4

Table :

- P.O. 1 :** Designs and implements effective language teaching practices using the ELT principles, theories, and methodologies.
- P.O. 2 :** Designs, evaluates, and adapts language curricula and syllabi that align with the needs and goals of diverse learners and educational contexts.
- P.O. 3 :** Designs and utilizes appropriate assessment tools to evaluate learners' language proficiency, monitor their progress, and provide constructive feedback.
- P.O. 4 :** Incorporates digital tools, multimedia resources, and online platforms to enhance language learning and teaching experiences.
- P.O. 5 :** Analyzes and applies main research methods that are typically applied in social sciences.
- P.O. 6 :** Develops and practices the skills necessary to conduct, review, and publish research.
- P.O. 7 :** Analyzes existing literature, designs research projects, collects and analyzes data, and presents findings related to ELT practices and pedagogy.
- P.O. 8 :** Shares current research and their own studies with groups in the field and outside the field using appropriate tools.
- P.O. 9 :** Adopts a reflective and ethical approach to their teaching.
- P.O. 10 :** Demonstrates a strong sense of professionalism, integrity, and responsibility towards learners, colleagues, and the ELT profession as a whole.
- P.O. 11 :** Demonstrates a commitment to lifelong learning and professional growth by engaging in continuous professional development activities.
- P.O. 12 :** Stays updated with current trends and research in the field of ELT.
- L.O. 1 :** Can define research, explain the key characteristics of a good researcher, and summarize different methodological approaches.
- L.O. 2 :** Can explain the differences between qualitative and quantitative research, define mixed methods research, and articulate their own paradigmatic stance.
- L.O. 3 :** Can list quality criteria in research, explain basic ethical principles, and formulate research questions and hypotheses.
- L.O. 4 :** Can distinguish between longitudinal and cross-sectional research and evaluate the strengths and weaknesses of both designs.
- L.O. 5 :** Can describe sampling methods in quantitative research and plan questionnaire, experimental, and quasi-experimental data collection techniques.

- L.O. 6 :** Can explain sampling methods in qualitative research and apply ethnography, interview, and focus group techniques.
- L.O. 7 :** Can explain the process of collecting diary and research journal data and discuss the purpose and design of mixed methods research.
- L.O. 8 :** Can evaluate the compatibility of different research paradigms and identify types of classroom research.
- L.O. 9 :** Can apply classroom observation techniques and explain the steps of action research.
- L.O. 10 :** Can prepare data for analysis using SPSS or similar software and conduct data reduction and reliability analysis.
- L.O. 11 :** Can interpret descriptive statistics and apply t-tests, ANOVA, correlation, and non-parametric tests.
- L.O. 12 :** Can explain the main principles of qualitative data analysis and apply content analysis and grounded theory methods.
- L.O. 13 :** Can perform data transformation, explain multi-level analysis, and apply category development techniques.