

# ABDELHADI EL BGUIR

Mohammed VI Polytechnic University (UM6P) · School of Collective Intelligence · Rabat, Morocco  
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## EDUCATION

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**PhD in Learning Sciences** 2023 – Present (Expected 2027)

Mohammed VI Polytechnic University (UM6P), School of Collective Intelligence, Rabat, Morocco

*Dissertation:* Personality, Group Dynamics, and Learning Outcomes: Informing Evidence-Based Pedagogical Practice

*Advisor:* Dr. Fatimaezzahra Benmarrakchi

**Master of Arts, Applied Linguistics and English Language Teaching** 2020

Ibn Zohr University, Agadir, Morocco

*Thesis:* Personality traits and language learning strategies

*Coursework:* Research methods, curriculum design, language assessment, educational psychology

**Bachelor of Arts, English Studies** 2015 – 2018

*Major:* Linguistics

Ibn Zohr University, Agadir, Morocco

*Coursework:* Phonetics and phonology, syntax, semantics, sociolinguistics, psycholinguistics, discourse analysis

## RESEARCH INTERESTS

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Learning Sciences · Individual Differences · Collaborative Learning and Group Dynamics · Human–AI Collaboration and AIED · Evidence-Based Education Policy

## PUBLICATIONS

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### Journal Articles

- Benmarrakchi, F., **Elbguir, A.**, Paulson, L., Majdoubi, N., Toko, A. K., & Abad, M. (2025). Educational challenges within ecological systems: Multi-stakeholder perspectives from urban high schools in southern Morocco. *Journal of Culture and Values in Education*, 8(3), 237–258. <https://doi.org/10.46303/jcve.2025.34>

### Under Review

- **Elbguir, A.**, & Benmarrakchi, F. (R&R). Big Five personality traits and student engagement: A systematic review. *Personality and Individual Differences*.

## WORKING PAPERS

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### Personality and Group Self-Selection: How Task Framing Shapes Team Composition

El Bguir, A., Benmarrakchi, F., & Moussaïd, M.

Preregistered experimental investigation (N=250) into how task framing biases team self-selection by altering which personality traits individuals prioritize when forming teams. By manipulating the task description (creative vs. analytical vs. neutral), we test whether contextual cues activate different cognitive prototypes that guide personality-based selection decisions. manuscript is in preparation.

### Beyond Personality and Self-Efficacy: Academic Narrative Agency as a Novel Predictor of Student Engagement

El Bguir, A., Benmarrakchi, F.

Mixed-methods study (N = 300) investigating narrative agency, defined as how students construct agentic stories about academic challenges, as a predictor of engagement beyond personality, self-efficacy, and hope. Narrative agency was coded from written academic challenge narratives and demonstrated unique associations with engagement and GPA, including compensatory effects for students with lower traditional predictors. Data collection is complete; analysis and manuscript development are underway.

### **Designing AI as a More Knowledgeable Other: Voice-Based Conversational Scaffolding**

El Bguir, A., & Benmarrakchi, F. F. Devoto

Design-based research developing voice-enabled AI grounded in sociocultural learning theory and the Productive Failure framework to scaffold language learning through guided dialogue. Pilot study (N=30) complete; preparing for an RCT implementation.

## **GRANTS AND FUNDED RESEARCH**

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### **Academic Excellence in the Morocco South Region: AI in Education**

*2026 – 2027*

*PI:* Dr. Fatimaezzahra Benmarrakchi · *Role:* PhD Researcher & Grant Co-Author

*Funding:* Phosbucraa Foundation (1.6M MAD / ~\$167,000 USD) · *Status:* In progress

Co-authored Phase II grant proposal focusing on AI applications in education to promote academic excellence and equity in southern Morocco's schools. Project scales evidence-based interventions across additional regions based on Phase I findings.

### **Academic Excellence in the Morocco South Region**

*2022 – 2024*

*Co-PIs:* Dr. Fatimaezzahra Benmarrakchi & Dr. Lex Paulson · *Role:* PhD Researcher

*Funding:* Phosbucraa Foundation (1.8 MMAD / ~\$180,000 USD)

Multi-year initiative promoting educational excellence in southern Morocco's high schools through research, professional development, and community engagement. Conducted mixed-methods research with students, parents, and teachers examining barriers to achievement and attitudes toward educational technology. Led stakeholder workshops and training programs. Research findings informed regional educational policy recommendations. Published in *Journal of Culture and Values in Education*.

## **TEACHING EXPERIENCE**

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### **Teaching Assistant, Experimental Methods I**

*Fall 2023 – Present*

Master's Program, School of Collective Intelligence, Mohammed VI Polytechnic University

*Course Instructor:* Prof. Fatimaezzahra Benmarrakchi

Taught laboratory sessions on experimental and quasi-experimental design. Guided students in hypothesis formulation, variable operationalization, survey design using Qualtrics, and data analysis in R.

### **Teaching Assistant, Experimental Methods II**

*Spring 2023 – Present*

Master's Program, School of Collective Intelligence, Mohammed VI Polytechnic University

*Course Instructor:* Prof. Florencia Devoto

Led laboratory sessions on randomized controlled trials and causal inference. Taught power analysis, randomization techniques, and effect size estimation using R. Supervised student research projects emphasizing theory of change, replication, and open-science standards.

### **Teaching Assistant, Basics of Computer Science**

*Fall 2025 – Present*

Master's Program, School of Collective Intelligence, Mohammed VI Polytechnic University

*Course Instructor:* Prof. Fatimaezzahra Benmarrakchi

Guide students in learning Python programming fundamentals, algorithm design and implementation, data structures, and computational problem-solving. Support students in building their first algorithms and developing foundational programming skills.

## MENTORING AND SUPERVISION

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### Master's Thesis Co-Supervisor

*2024 – Present*

School of Collective Intelligence, Mohammed VI Polytechnic University

Co-supervised three master's students/interns on thesis research projects examining parental involvement in educational outcomes, personality-based group composition effects on collaborative learning, and the role of AI in education. Provided comprehensive guidance on literature review, research design, statistical analysis, and academic writing throughout their research process.

## PROFESSIONAL DEVELOPMENT

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### Swiss Summer School in Social Science Methods

*August 2025*

USI Università della Svizzera italiana, Lugano, Switzerland

*Course:* Creating Groups from Data: Cluster Analysis and Latent Class Analysis

Advanced training in cluster and latent class analysis, gaining applied expertise in hierarchical and non-hierarchical clustering, fuzzy clustering, DBSCAN, and advanced LCA/LPA techniques.

### NCRM/C-BEAR Summer School

*July 2024*

University of Southampton, United Kingdom

*Course:* Introduction to Experimental Methods in Social Sciences: Surveys, Laboratory and Field Experiments

Training in experimental design, randomization techniques, and causal inference evaluation in educational interventions, with hands-on practice in Qualtrics, R, and online experimental platforms.

## PROFESSIONAL MEMBERSHIPS

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### American Psychological Association (APA), Division 15: Educational Psychology

*December 2025 – Present*

### International Society for the Study of Individual Differences (ISSID)

*September 2025 – Present*

## TECHNICAL SKILLS

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**Statistical Analysis:** R, RStudio, SPSS

**Programming:** Python (machine learning)

**Survey & Data Collection:** Qualtrics, Prolific

**Learning Management Systems (LMS):** Canvas

**Writing & Reference Management:** Mendeley, Zotero

**Project Management:** Asana, Monday, Jira

**Productivity Tools:** Microsoft Office, Google Workspace

## LANGUAGES

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Arabic (Native) · English (C2 Certified) · French (Intermediate)