

# Erva Nihan Kandemir, PhD

## PhD in Cognitive Science

- Learning Analytics • Education Leadership
- Learning Technologies • Big Data Analysis

## Education

- 2025– present **Postdoctoral Fellow**, *Teachers College, Columbia University, New York, USA*
- 2022–2025 **PhD in Cognitive Science**, *French National Centre for Scientific Research (CNRS) & École Normale Supérieure (ENS)-PSL, Paris, France*
- 2020–2022 **Master's in Cognitive Science (High Honor)**, *ENS-PSL & Université de Paris Cité, Paris, France*
- 2016–2020 **Bachelor's in Psychology (High Honor)**, *Middle East Technical University (METU), Ankara, Turkey*
- 2016–2020 **Minor Degree in Biology**, *Middle East Technical University (METU), Ankara, Turkey*

## Research Experience

- 2025– present **Postdoctoral Fellow**, *Education Leadership Data Analytics Research Group, Teachers College, Columbia University, New York*, Advisor: Alex J. Bowers
- Support evaluation and research initiatives examining state-level education systems and public data infrastructures across multiple U.S. states.
  - Process and harmonize large-scale quantitative datasets to assess system alignment, equity metrics, and performance indicators.
  - Contribute to technical reports, research briefs, and dissemination materials for policymakers and institutional stakeholders.
  - Collaborate remotely with cross-institutional research teams.
- 2022–2025 **Visiting Research Affiliate**, *Cognitive Development Lab, New York University (NYU), New York*, Host: Andrei Cimpian
- 2022–2025 **PhD Researcher – Evaluation of Digital Learning Systems**, *CNRS & École Normale Supérieure (ENS)-PSL, Paris*, Advisor: Franck Ramus
- **Dissertation**: *Optimizing Medical Training Through Learning Analytics and a Large-Scale Experiment*.
  - Designed and implemented large-scale experimental and quasi-experimental evaluations within digital medical training platforms.
  - Conducted systematic literature reviews and a peer-reviewed meta-analysis synthesizing evidence on instructional effectiveness.
  - Processed and analyzed large volumes of behavioral, survey, and platform log data.
  - Applied mixed-method approaches integrating quantitative modeling and structured qualitative analysis.
  - Produced research outputs informing institutional decision-making and program improvement.

- 2021–2022 **Master's Research – Perceptual Decision-Making**, *Laboratory of Perceptual Systems, École Normale Supérieure (ENS-PSL), Paris*, Advisor: Pascal Mamassian  
○ **Master's Thesis**: *Effect of Post-decisional Evidence Accumulation on Type-I and Type-II Decisions*.

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## Publications

**Peer-Reviewed** **Kandemir, E. N.**, Gurgand, L., Esposito, E., & Ramus, F. (2026). *A Meta-Analysis of the Impact of Feedback Timing on Learning Outcomes in Computer-Assisted Learning*. *Educational Psychology Review*, 38, 13. <https://doi.org/10.1007/s10648-026-10117-8>

**Kandemir, E. N.**, Vie, J. J., Sanchez-Ayte, A., Palombi, O., & Ramus, F. (2026). *Investigating the Influence of Training Difficulty on the Learning Outcomes of Medical Students*. *Journal of Computer Assisted Learning*, 42(1), e70172. <https://doi.org/10.1002/jcal.70172>

**Kandemir, E. N.**, Vie, J. J., Sanchez-Ayte, A., Palombi, O., & Ramus, F. (2024, March). *Adaptation of the Multi-Concept Multivariate Elo Rating System to Medical Students' Training Data*. *Proceedings of the 14th Learning Analytics and Knowledge Conference* (pp. 123–133). <https://doi.org/10.1145/3636555.3636858>

**Manuscript in Preparation** **Kandemir, E. N.**, Bakhtyar, M., Jouanot, F., Sanchez-Ayte, A., Palombi, O., & Ramus, F. (2026). *The Effect of Feedback Delay and Answer Recall on Learning*.

Phan, L. H., **Kandemir, E. N.**, Bowers, A. J., Saldaña, C., & Halverson, R. (2026). *Beyond Test Scores: Tracking School Improvement Initiatives Using Systems-Level Tools*.

**Kandemir, E. N.**, Bowers, A. J., Saldaña, C., & Halverson, R. (2026). *From Files to Systems: How States Organize Their Public Data and Why It Matters*.

**Kandemir, E. N.**, Phan, L. H., Bowers, A. J., Saldaña, C., & Halverson, R. (2026). *Aligning Education Measures: Integrating NASEM Indicators With FAIR Data Standards*.

**Scholarly Contribution** Bowers, A. J., Choi, Y., Huan, Y., Huang, Y., Jiang, J., Cibrian Lopez, G., . . . & Halverson, R. (2025). *Mapping Public Open Access K-12 State Education Indicator Data Across 7 States and Washington DC Using the FAIR Data Principles*. <https://doi.org/10.7916/c0jk-5e64>. Acknowledged for data validation and report review.

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## Conference Presentations

June 2024 **JURE Conference of EARLI (European Association for Research on Learning and Instruction)**, *Presentation: "Investigating the Influence of Training Difficulty on the Learning Outcomes of Medical Students"*, Seville, Spain

March 2024 **14th International Conference on Learning Analytics and Knowledge (LAK24)**, *Presentation: "Adaptation of the Multi-Concept Multivariate Elo Rating System to Medical Students' Training Data"*, Kyoto, Japan

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## Skills

### Evaluation & Research Methods

- Mixed-methods evaluation
- Literature & desk reviews
- Evidence synthesis
- Experimental & quasi-experimental design
- Quantitative & qualitative data analysis
- Coding
- Survey design
- Policy and systems-level analysis

### Data Analysis & Programming

- R
- Python
- MATLAB
- SPSS
- Large-scale dataset processing
- Statistical modeling (multilevel models, random-effects models)
- Data cleaning, harmonization & transformation
- Machine Learning

### Reporting & Dissemination

- Technical report writing
- Executive summaries
- Data visualization for policy audiences
- Academic publications
- Conference presentations
- Cross-institutional collaboration

### Tools & Platforms Languages

- MS Office
- Qualtrics
- L<sup>A</sup>T<sub>E</sub>X
- Version Control
- Figma
- Canva
- English
- French
- Turkish

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## Teaching & Supervision

### Teaching

2023–2024, 2022–2023 **Teaching Assistant** — **DATA 201: Data Science for Cognitive Science**, *Master's Program in Cognitive Science, ENS-PSL & Université Paris Cité*

### Thesis Supervision

2023–2024 **Master's Thesis Supervisor**, *ENS-PSL, Cognitive Science*  
○ **Master's thesis**: Allard, N., **Kandemir, E. N.**, & Ramus, F. (2024). *Scoring systems for multiple-true-false multiple-choice questions.*

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## Awards & Scholarships

2022–2023 **Winner**, *Challenge Tocqueville 2023, Tocqueville Foundation, Paris*

- National competition on social innovation
- Led project on equal opportunity in education, awarded 1st place

2020–2022 **French Embassy & Turkish Education Foundation (TEV) Joint Scholarship**, *Master's studies in France*

2016–2020 **Turkish Education Foundation (TEV) Scholarship**, *For high-achieving students*

2016–2020 **High Honor Student**, *Middle East Technical University (METU)*

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## Extracurricular Activities & Leadership

2024–2025 **Ad hoc Reviewer**, *Journal of Computer Assisted Learning (Wiley)*

2023–2025 **Vice Treasurer**, *DEC-Life student association (ENS-PSL)* — *organization of student academic and networking events*

2022–2023 **President**, *DEC-Life (ENS-PSL)*