Daniela Tîrnovan

Holmdel, NJ, 07733 | +1(718) 216-1745
danielatirnovan24@gmail.com
www.linkedin.com/in/danielatîrnovan24

PROFESSIONAL SUMMARY

Accomplished mathematics educator and researcher with extensive experience in K-12 education, specializing in multilingual and culturally diverse learning ecologies. Likewise adept in developing innovative curricula, designing and leading professional development tertiary courses, and integrating cutting-edge technologies, including AI and computational thinking, into educational practices for pre-service and in-service educators. Trained in qualitative and quantitative research methodologies, strongly focusing on translanguaging practices, student-centered teaching practices, and educational equity. Proven track record of collaborating with national and international scholars, contributing to peer-reviewed publications, and presenting at premier educational conferences. Fluent in multiple languages, bringing a rich understanding of linguistic and cultural dynamics to the classroom. Dedicated to mentoring educators and fostering a student-centered, inclusive educational landscape.

LANGUAGES

Romanian, **Hebrew**, **English**, and **Spanish:** Cultural Native and Linguistically Fluent (socially and academically)

Portuguese, **French**, **Hindi**: Linguistic Beginner

EDUCATION

Ph.D. Mathematics Education (2024); *Rutgers State University, New Brunswick, NJ*

Master of Science in Education in Elementary Mathematics Education (2017); *City University of New York, Brooklyn, NY*

Bachelor of Arts in Linguistics and Philosophy (2014); *City University of New York, Manhattan, NY*

ACADEMIC WORK EXPERIENCE

Assistant Professor, *University of South Alabama, College of Education & Professional Studies, Department of Leadership & Teacher Education* (August 2025 – Present)

- Responsibilities:
  - Instructing undergraduate and graduate classes in elementary and middle grades mathematics education; advising departmental majors.
  - Co-developing new departmental courses to support the Alabama Math, Science, and Technology Initiative.
  - Serving on numerous departmental and university committees;
  - Collaborating with departmental and university faculty and collaborating with departmental and university faculty in various scholarly endeavors.

Lecturer in Childhood Education Methods & Research (August 2018 – Present); *City University of New York (CUNY), Brooklyn College, Brooklyn, NY*

- Courses Taught:
  - Elementary Mathematics Pedagogy Methods (M.S.)

- Middle Childhood Math Education (M.S.)
- Teaching Math in Childhood Education (M.S.)
- Advanced Education Action Research Methods (M.S.)
- Seminar Applied Theory in Math Education (M.S.)
- Elementary Undergraduate Pedagogy Math Methods (B.A.)
- Elementary Literacy Pedagogy Methods (B.A.)
- Elementary STEAM Focused Education Pedagogy Methods (B.A.)
- Teaching and Learning with Technology - Computing Education and Digital Literacies (B.A.)

- Responsibilities:
  - Design and facilitate dynamic, in-person and synchronous courses for K-12 pre-/in-service teachers, adapting content to meet evolving pedagogical needs and building adaptive learning environments focused on diverse classroom settings.
  - Develop and implement equity-focused, project-based curriculum components that enhance cultural responsiveness and inclusivity, equipping educators with effective strategies to engage linguistically and culturally diverse student populations.
  - Strategically incorporating technology into instruction, including Brainly, Canva, Desmos, Knewton, Picmaker, Phet, SageModeler, Scratch, SlidesAi, Speechify, and Wolfram Alpha, streamlining curriculum development processes and reduces planning time for educators by 65 hours per term.
  - Lead hands-on training sessions where pre-service and in-service teachers gain practical experience with AI-powered educational resources and leverage AI and computational tools to analyze student learning patterns, enabling them to identify knowledge gaps, personalize instruction, and proactively respond to individual student progress.
  - Enhancing educators' pedagogical practices in mathematics, science, and literacy, drawing from the latest educational research, AI integration, and practice-based approaches to benefit all learners.
  - Collaborate with teachers to develop community-centered teaching pathways that foster authentic connections with local communities, enriching curriculum relevance and cultural responsiveness.
  - Mentoring in-service teachers to design and conduct their action research using qualitative and quantitative methods.
  - Lead targeted support programs to enhance pre-service teacher success and retention, providing specialized edTPA and certification exam guidance that strengthens professional readiness and instructional confidence.
  - Supervising and mentoring:
    - Pre-service teachers during their fieldwork in public schools.
    - In-service teachers emphasize continuous professional development.

Instructional Portfolio Coach (May 2025 – Present) Rutgers State University, *New Brunswick, NJ*

- Coach alternate route teacher candidates by providing formative, rubric-based feedback on instructional portfolios aligned with the Danielson Framework, RU-TEACH expectations, and NJSLS in mathematics and general education.
- Support candidates in developing interdisciplinary, culturally responsive, and research-informed approaches to lesson planning, instruction, and assessment.
- Evaluate written reflections and classroom videos using the Watermark SLL platform, offering actionable commentary to promote professional growth and instructional rigor.

Lecturer in Childhood Education (August 2022 – December 2024); *Rutgers State University, New Brunswick, NJ*

- Guiding pre-service teachers through best practices in elementary mathematical content and pedagogy, emphasizing creating thinking classrooms.
- Facilitating pre-service teachers' understanding of foundational mathematics concepts, including numeration, arithmetic operations, geometry, measurement, probability, and statistics, focusing on effective methods for developing these topics in elementary school classrooms.
- Engaging in face-to-face and synchronous virtual teaching modalities and integrating advanced AI resources to enhance content delivery and understanding.

Designer & Instructor of Professional Development Courses, Mathematics Pedagogies, MELT Institute (June 2023 – July 2025); *Appalachian State University, Boone, NC*

- Designed and facilitated (or collaboratively co-designed for another to facilitate) a range of one-week professional development summer institutes for K-8 mathematics teachers, instructional coaches, and school leaders, focusing on enhancing instructional methodologies, integrating innovative technologies, and addressing the diverse needs of multilingual and diverse student populations.
  - **K-5 Mathematics: Content and Pedagogy.** Developed and delivered (2023, 2024) a targeted institute covering essential K-5 math topics, including number sense, measurement, geometry, data analysis, and algebra. Emphasized discourse-based, student-centered approaches and effective assessment practices.
  - **Effective Use of Math Manipulatives.** Developed and delivered (2023, 2024) an institute on utilizing physical and virtual manipulatives in K-8 math teaching and learning. Covered pedagogical student-centered approaches to enhance conceptual understanding and student engagement aligned with educational standards.
  - **Leveraging AI in Elementary Mathematics Education.** Co-created two institutes (K-5 and 6-12) (2024) on utilizing Artificial Intelligence (AI) to revolutionize elementary mathematics education. Covered AI tools and strategies for efficient content development, differentiated instruction, and streamlined assessment processes, significantly reducing grading time and improving student outcomes.

Graduate Research Assistant in Mathematics Education (September 2020 – September 2024); *Rutgers State University, New Brunswick, NJ*

- Developed a comprehensive theoretical framework to analyze translanguaging practices focused on systemic and societal structures, serving as a cornerstone for subsequent research in education.
- Conducted a dissertation study involving an extensive design-based research methodology to explore the role of translanguaging practices within K-12 mathematics education, shaping instructional methods and curriculum development serving multilingual learners' achievement in mathematics.
- Presented research findings at premier educational conferences in 2022 and 2023, highlighting advancements in translanguaging practices and their impact on multilingual learners. Independently showcased a community-based project at these forums, emphasizing collaborative research and pedagogical strategies.
- Under a doctoral advisor's mentorship, I engaged in qualitative and quantitative research methodologies, applying these approaches to explore and address critical issues in mathematics education.
- Actively collaborated with my chair advisor, Rutgers faculty, and faculty from national and international universities on diverse qualitative, quantitative, and mathematics education projects, contributing to multiple peer-reviewed publications and innovative educational strategies.

Lecturer in Childhood Education-Student Teaching Seminar (Aug. 2019 – May 2021); *City University of New York (CUNY), City College of New York, Manhattan, NY*

- Guided prospective bilingual childhood teachers through a full-time, immersive teaching experience across grades 1-6, including a required placement in lower and upper elementary levels.
- Facilitated the development of multilingual and culturally responsive instructional strategies, classroom management skills, and assessment techniques to meet all students' diverse academic and emotional needs, including those with special needs.
- Fostered and strengthened school and community partnerships, emphasizing collaborative approaches to effective education.

Dean of Curriculum and Mathematics Supervisor, Grades 3-8 (June 2017 – June 2019); *Sha'arei Tzion Ohel Bracha, Queens, NY*

- Spearheaded designing and refining grade-appropriate mathematics curricula, integrating content-specific STEAM projects to ensure holistic educational experiences.
- Collaboratively developed and optimized instructional materials and assessments with teaching professionals.
- Engaged in pedagogical coaching, elevating educators' capacities to deliver best-in-class mathematics instruction.
- Forged collaborative dialogues with administrative peers, strategizing and deliberating on academic advancements and programmatic choices.

Fourth-Grade Classroom Mathematics Teacher (June 2016 – June 2019); *Sha'arei Tzion Ohel Bracha, Queens, NY*

- Created engaging, interactive lesson materials for 36+ students, aligning with district standards, resulting in a 30% increase in student participation during math activities and significantly improved classroom dynamics.
- Differentiated instruction for varied cultural backgrounds and multilingual learner needs, promoting engagement, critical problem solving, and reasoning.
- Administered assessments and adjusted strategies to address learning gaps for all learners.
- Fostered a positive, inclusive classroom promoting collaboration through active growth mindset engagement.

First-Grade Classroom Teacher (Aug. 2014 – Aug. 2016); *P.S. 159 Elementary Public School, Brooklyn, NY*

- Developed and delivered lessons blending core grade-appropriate content across first-grade disciplines for multilingual learners.
- Cultivated an inclusive learning and socially enriching environment for young students, utilizing adaptive techniques to cater to their diverse linguistic and cultural backgrounds.

ACADEMIC SERVICE

Editor (June 2024 – Present) *International Journal for Mathematics Teaching and Learning; Plymouth University, UK*

Read, reviewed, edited, and prepared submitted articles for publication. Assisted authors, reviewers, and the editorial team in publishing high-quality articles.

PUBLICATIONS

Published

Palpacuer Lee, C., & **Tîrnovan, D.,** Feldman, M., Curran, M., & Hyland, N. (2025, in press). Decolonizing gestures through community-engaged partnerships. In F. P. Ehlers-Zavala, M. Back, & Y. Ortega (Eds.), *Innovations in the teaching of English and world languages from a decolonial perspective.* Colorado State University, University of Connecticut, & Queen's University Belfast. (pp.1-34) https://doi.org/10.1007/978-3-031-96161-8_7

Tîrnovan, D., Rivera Guerrero, A. V. & Bossé, M. J. (2025, in press). Reconnecting Social Justice in Translanguaging: A Conversation Across Top-Down Constraints and Bottom-Up Resistance. *Journal of Education, Language, and Ideology (JELI), 3(2).*

Howell, T., **Tîrnovan, D.,** & Bossé, M. J. (2025). Preservice teachers' personified relationships with math via power dynamics. In F. Dilling, F. Pielsticker, & I. Witzke (Eds.), Proceedings of the 52nd Annual Meeting of the Research Council on Mathematics Learning (pp. 66–73). RCML

Mathaba, P. N., Bayaga, A., **Tîrnovan, D.**, & Bossé, M. J. (2024). Error analysis in algebra learning: Exploring misconceptions and cognitive levels. *Journal on Mathematics Education*, 15(2), 575-592.

Garzone, N., Howell, T., & **Tirnovan, D.** (2023). Mastering anxiety: The effect of mastery-based testing on quantitative literacy college students' anxiety levels and mindsets. *International Journal for Mathematics Teaching and Learning*, *24*(1), 62-73.

Gün, Ö., Bossé, M. J., & **Tîrnovan, D.** (2023). Exploration of relationships between teacher and parent attitudes and student affective characteristics in mathematics. *International Journal for Mathematics Teaching and Learning*, *24*(1), 74-112.

Tîrnovan, D. (2023). A novel framework serving translanguaging: Exploring structures, multilingualism, and inequities in education. *International Journal for Mathematics Teaching and Learning, 24*(1), 113-155.

Alqahtani, M., Powell, A., Webster, V., & **Tirnovan, D.** (2022). How a measuring perspective influences pre-service teachers' reasoning about fractions with discrete and continuous models. *International* Electronic Journal of Elementary Education, 14(3), 441-458.

Powell, A., Alqahtani, M., Temur, Ö., & **Tirnovan, D**. (2022). Elementary school teachers' understanding of unit fractions. Boletim GEPEM, (80), 231-248.

In Press

Sevier, J., Gün, Ö., Singh, R., **Tîrnovan, D**., Howell, T., & Bossé, M. J. (2025, Accepted). Patterns in mathematical problem solving. PME-NA

Singh, R., **Tîrnovan, D**., Howell, T., Sevier, J., Gün, Ö., & Bossé, M. J. (2025, Accepted). Is mathematics interpretable without a supporting language? PME-NA

Tîrnovan, D., Howell, T., Singe, R., Sevier, J., Gün, Ö., & Bossé, M. J. (2025, Accepted). In-service teachers' personified relationships with mathematics leading to professional transformation. PME-NA

Tîrnovan, D., & Willey, C. (2026, in press). Reconceptualizing mathematics education through translanguaging: Empowering emergent multilingual learners. *In Bloomsbury Encyclopedia for Social Justice Series: Volume 6: Language, Literacy, Youth, and Culture*. Bloomsbury Academic

Under Review

Tîrnovan, D., Bossé, M. J., Sevier, J., Howell, T., Palmer, K., Singh, R., & Gün, Ö. (in review). *Computational thinking as a pathway: Mathematics teachers reimagining AI integration in mathematical learning.*

Tîrnovan, D. (in review). Reviewing translanguaging in mathematics education: Focus on structures
Tîrnovan, D. (in review). Exploring second-grade mathematics students' whole-class translanguaging practices- A classroom perspective
Tîrnovan, D. (in review). Cultivating critical translanguaging spaces in a second-grade dual-language mathematics classroom
Tîrnovan, D., & Haydar, H. (in review). Challenging monolingual ideologies: How clinical interviews help teachers enhance translanguaging spaces in mathematics for emergent bilinguals. Mathematics Teacher Educator.
Sevier, J., Gün, Ö., Howell, T., Singh, R., **Tîrnovan**, D., & Bossé, M. J. (in review). Patterns in problem solving.
Singh, R., Bossé, M. J., & **Tîrnovan**, D. (in review). The interpretability of mathematics sans a supporting language.
Howell T., **Tîrnovan, D.** & Bossé, M. J. (in review). Inservice teachers' personified relationships with mathematics leading to professional transformation.

In Progress

Tîrnovan, D., Espinoza, P., & Bossé, M. J. (2025). Individual, relations, and communal translanguaging identity. Manuscript in preparation.

CONFERENCE PRESENTATIONS

Tîrnovan, D., & Howell, T. (2025). Preservice teachers' personified relationships with math via power dynamics. [Oral Presentation]. 52nd Annual Conference of the Research Council on Mathematics Learning (RCML), College Station, TX, USA.

Tîrnovan, D., Bondie, R., Ogunbemi, O., & Mavrides Calderon, M. (2025, October). Context-specific simulations: Tools to support teacher candidates in uncertain times [Panel presentation]. NYSATE/NYACTE 2025 Fall Conference, Albany, NY.

Tîrnovan, D., Bondie, R., Ogunbemi, O., & Mavrides Calderon, M. (2025, August 6). *Context-specific simulations: Tools to support teacher candidates in uncertain times* [Poster presentation]. CITE 3rd Annual Research Fair, City University of New York. https://citelearning.commons.gc.cuny.edu/cites-3rd-annual-research-fair/

Tîrnovan, D., Palpacuer-Lee, C., Feldman, M., & Hunsdon, J. (2025). Co-learning en Comunidad: Cultivating and centering families' expertise and practices in multilingual spaces. [Oral Presentation]. REACH—Advancing Equity with Community-engaged Education Conference, Rutgers Busch Campus Center, Piscataway, NJ, USA.

Palpacuer-Lee, C., **Tirnovan, D**., & Dominguez, A. (2023). Decolonizing the curriculum through community-engaged partnerships. [Oral Presentation]. AILA 2023 World Congress, Lyon, France.

Tirnovan, D., Dominguez, A., & Palpacuer-Lee, C. (2023). Family math nights: Centering families' language and mathematical repertoires in community-engaged learning. [Research-to-Practice Workshop Presentation]. TODOS: Mathematics for All Conference, Albuquerque, NM, USA.

Powell, A. B., Alqahtani, M. M., Doğan Temur, Ö., & **Tirnovan, D**. (2022). Elementary school teachers' understanding of unit fractions. 44th Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education (PMENA), Nashville, TN, USA.

GRANTS

CITE Small Grant - Modeling and Simulation Affinity Group (Ogungbemi, O. et al.)
Computing Integrated Teacher Education (CITE), City University of New York (CUNY)
$4,998.40- 2024–2025; ***Exploring Teacher Candidates' Engagement and Learning Transfer Through Context-Specific Simulations*- ID number 7W241-17 01**

Role: Co-Principal Investigator

NON-ACADEMIC WORK EXPERIENCE

Pharmaceutical Sales Representative (Jan. 2018 – Jan. 2019); *Carwin Pharmaceutical, Brooklyn, NY*
Cultivated and fortified relationships with medical professionals across territories, leading the N.Y. Metro team in engagements and educational sessions.
Retail Store Manager (Jan. 2012 – Dec. 2014); *Satnick's Jewels, Brooklyn, NY*
Spearheaded operations, emphasizing relationship building with clientele, sales forecasts, and meticulous inventory management.
Flagship Store Manager (Jan. 2009 – Dec. 2011); *Swarovski, Manhattan, NY*
Oversaw flagship store operations, focusing on team and clientele relationship cultivation, sales targets, and innovative merchandising strategies.

SKILLS & EXPERTISE

Professional Development and Mentorship: Professional Development, Teacher Mentorship, Mentorship in Academic Research, Workshop Facilitation
Curriculum and Instructional Design: Curriculum Design, Content-Specific Instructional Design, STEM Education, Innovative Pedagogy
Policy and Advocacy: Educational Policy Analysis, Educational Equity Advocacy
Educational Technology and Innovation: AI Research and Integration, Technology Integration, Digital Literacy in Education, Online and Hybrid Learning Modalities
Classroom Management and Instruction: Classroom Management, Diverse Learning Environments, Instructional Strategies, Assessment Practices
Research and Data Analysis: Qualitative Research, Mixed Methods Research, Action Research, Data Analysis, Instrument Building, and Validating
Collaborative and Interdisciplinary Engagement: Collaborative Research, Interdisciplinary Collaboration, Community Engagement in Education, Group Facilitation, Equity-Focused Education, Social Perceptiveness