

Bindu R Thirumalai

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Experience Summary

Twenty-six years of experience across academic, development, government, and corporate sectors.

Researcher, Teacher Educator and Thought Leader, passionate about building teacher capacity at the grassroots level by focusing on action research and cultivating meaningful partnerships across academia and government. Apply my diverse and deep experience in academic, development, government, NGO and Corporate technology environments to bring lasting, transformative change in teacher education. Assistant Professor at the premier Tata Institute of Social Science.

Led and engaged in research initiatives to **drive large-scale interventions focused on teacher education**, teaching-learning, curriculum and pedagogy within government education systems. Deep expertise in **Course Design and Development, creating MOOCs** for practising teachers and delivering blended post-graduate certificate programs. Implemented state-wide in-service teacher capacity building programmes, designed pre-service teacher education curriculum and syllabi and created material to integrate technology with curricula for classroom teaching-learning processes. Set up non-formal learning spaces for children from underprivileged backgrounds, utilising alternative methods and practices. As Software Developer executed mission-critical technology initiatives from concept through implementation

Educational qualifications (Institute – Degree - Major subjects - Year)

1. Tata Institute of Social Sciences, Hyderabad, India, PhD Education. (2022)
 - a. Dissertation Title: *A Study of Teachers' Community of Practice in the Indian Context*
2. UGC-NET qualified (Assistant Professor) in Education.
3. Tata Institute of Social Sciences, Hyderabad, India, M.Phil Education, (2015)
 - a. Dissertation Title: *Social Justice and School Mathematics: A Conceptual and Empirical Investigation*
 - b. Optional Subjects: Mathematics Education, Teacher, Teaching and Teacher-Education, Education and Development
4. Tata Institute of Social Sciences, Mumbai, India, MA Education (Elementary), (2011)
 - a. Prize for the Best Student of the First-Year Education (Elementary)
 - b. Certificate of Merit for the Best Field Attachment – Pedagogy of Mathematics
 - c. Optional Subjects: Pedagogy of Mathematics, Pedagogy of Social Sciences, Gender and Education
5. Bangalore University, India. MCA -Master of Computer Applications, (1996)
6. Bangalore University, India. BSc. – Bachelor of Science (1992)

Work Experience:

Adjunct Faculty, National Institute of Advanced Studies, Bengaluru (Jan '25 – Current)
School of Social Sciences, Education Programme

Assistant Professor, Tata Institute of Social Sciences, Mumbai (Feb '15 – Dec '24)
Faculty at the Centre of Excellence in Teacher Education (CETE).

Coordination

Coordinating the Research Dissertation for MA Education / B.Ed.-M.Ed. Programmes
Programme Coordinator for the blended post-graduate certificate course *Reflective Teaching with ICT* for in-service teacher professional development

Course Design and Development

1. Data Analytics Module for Grade 11th and Grade 12th World of Work: Dr. B. R. Ambedkar Schools of Specialised Excellence affiliated with the Delhi Board of School Education (DBSE).
2. BSc-BEd (Mathematics & Computer Science) Integrated programme jointly with IIT Madras, Chennai.
3. Global Teacher Education Policies and Practices course jointly with the University of Sussex, UK, Ambedkar University, India, National Institute of Educational Planning and Administration, India & Jamia Millia Islamia, India.
4. **Technology Enabled Learning Support for Teachers course for the new MA Ed Tech programme of the center**
5. **MOOC based courses** – Mentoring for Teacher Professional Development; ICT and Education; Reflective Mathematics Teaching; Action Research ; Design Thinking in Education for Learning with EdTech
6. Student Materials / OER: CLIX Digital Literacy Module; CLIX Geometric Reasoning Module

Teaching

1. Postgraduate Certificate Courses - ICT and Education; Reflective Mathematics Teaching, Mentoring for TPD, Teacher Education, Action Research & Pedagogy of Mathematics (for teacher educators)
2. MA Education – Teacher Education, Pedagogy of Mathematics, Education Research Methods

Research & Field Action Projects

1. Lead – Mathematics OER development at scale for Telangana government secondary school teachers in the use of Interactive Flat Panels.
2. Situational Analysis of the District Institute of Education & Training [DIET] of Uttar Pradesh.
3. Programme Evaluation of the Kendra Pramukh Academic Leadership Programme (KPALP) for teacher support in Maharashtra.
4. Social Network Analysis, for the [CL4STEM](#) initiative for teacher education in mathematics and science.
5. Researching online and hybrid models of continuous professional development of teachers through the course offerings of the Reflective Teaching with ICT programme of [CLIX](#) a technology-enabled initiative at scale for high school students.
6. Establishing model District Educational Resource Centres (DERC) in District Institute of Education & Training [DIET], Karnataka

Presentations & Publications

Journals

1. Thirumalai, B. R. (2024). Book Review: A Learning Community of Reflective Teachers: From Whispers to Resonance. Routledge, 2024, pp. xviii+ 234, ₹ 1,128. ISBN: 978-1-032-67172-7 (Paperback), Contemporary Education Dialogue.
2. Thirumalai, B. R., & Sarangapani, P. M. (2023). Designing a Mobile-Messaging App-Based Teachers' Community of Practice in India. Bulletin of Science, Technology & Society.
3. Thirumalai, B. R. (2020). Book Reviews: S. Giridhar, Ordinary people, extraordinary teachers. The heroes of real India. Contemporary Education Dialogue, 17(2), 251–255.

Book Chapters & Reports

1. Thirumalai, B., Rammohan, L., Barman, P., Ahuja, T. Bose, A. (2023). Uttar Pradesh Situational Analysis Report. District Institute of Education and Training (DIET). Tata Institute of Social Sciences, Mumbai.
2. Thirumalai, B., Bhalariao, S., Chawadi, R., Suhaib, M. (2023). Study of UNICEF - Kendra Pramukh Academic Leadership Programme (KPALP). Tata Institute of Social Sciences, Mumbai.
3. Thirumalai, B. (2022). Studying Children's Attitude and Disposition Towards Mathematics and Problem Solving in Reflections on Educational Practice. Science social science and mathematics. Nawani, D., Manjekar, N., Paliwal, R., Shevade, R. (eds). TISS & Eklavya.
4. Mulla, S., Thirumalai, B., Ramanathan, A. (2022). State initiatives and innovations in technology enabled content for school education in South Asia: Examining aspects of access, equity, inclusion and quality. Paper commissioned for the 2023 Global Education Monitoring Report, Technology and education.
5. Sarangapani, P.M., Thirumalai, R., Ramanathan, A, Kumar, R, Ramchand, M. (2021). No Teacher No Class. State of the Education Report for India 2021. UNESCO, New Delhi, India.
6. Thirumalai, B, Ramanathan, A, Charania, A, Stump, G (2019). Designing for Technology Enabled Reflective Practice: Teachers' Voices on Participating in a Connected Learning Practice. In Teaching and Teacher Education. South Asian Perspective. Setty, R., Iyengar, R., Witenstein, M., Byker, E.J., Kidwai, H. (Eds.), Palgrave Macmillan. <https://www.palgrave.com/us/book/9783030268787>.
7. Contributor – “Teacher Resource Centres in India: A Sourcebook” edited by Padma M. Sarangapani, Disha Nawani, Latha K. and Jyoti Bang, 2017, Tata Institute of Social Sciences, Mumbai.
8. Menon, S., Thirumalai, B. (2016). Curricular Materials in Early Language and Literacy Classrooms in Karnataka and Maharashtra. In Teaching-Learning Resources for School Education. Nawani, D. (ed.), Sage Publications.

Policy & Practice Briefs (https://bit.ly/CETE_PPP)

1. CETE (2024). Using ICT for scalable, sustainable Teacher Professional Development in Developing Country Contexts: An approach paper. Centre of Excellence in Teacher Education, Tata Institute of Social Sciences Mumbai.
2. CETE (2023). RAP Curation Rubric to Evaluate OER's Pedagogical Potential for IFP Devices: A Policy and Practice Brief 2(1). Centre of Excellence in Teacher Education, Tata Institute of Social Sciences, Mumbai. January 2023.

3. CETE. (2023). Curating and Creating OER to Enable Active Learning and Professional Development in Teacher Education Institutions: A Policy and Practice Brief 2(3). Centre of Excellence in Teacher Education, Tata Institute of Social Sciences Mumbai. August 2023.

Seminars/Conferences:

1. 2019 Leap ITE Symposium. Thirumalai, B Panellist - Role of Teacher Professional Development within the context of fostering the approach of 'Learners as producers'
2. 2019 National Conference on Leadership Pathways for School Improvement NIEPA, New Delhi. – Thirumalai, B & Balli, O. Peer Leadership and Mentoring Course for Teachers Continuous Professional Development.
3. 2018 Connected Learning at Scale - An International Symposium, TISS, Mumbai. – Thirumalai, B. Teacher Communities of Practice.
4. 2018, CESI, Vadodara, India. Thirumalai, B & Sarangapani, P.M. Building Teacher Professional Communities in India: an examination of the APPEP experience of Teacher Centres.
5. 2016 CESI, Tirupati, India. ICT enabled blended micro-course for Secondary School Mathematics Teachers: A large scale design experiment
6. 2014 CESI, New Delhi, India. Thirumalai, B & Kumar, R. Social Justice, School Mathematics and Knowledge in the Indian National Curriculum Framework [NCF 2005]: A Conceptual and Empirical Investigation.

Independent Research and Practitioner at various NGOs

(July 07 to Jan 15)

Various Software Engineering roles, including Intel Corporation, CA, USA

(Feb 98 to Mar 06)