

CURRICULUM VITAE



DR. ZACHARY NJAGI NDWIGA, PhD

Education Researcher | Curriculum & Competency-Based Education Specialist | Research Capacity Builder

University of Embu, School of Education and Sciences | Department of Education
Embu, Kenya | +254 (727) 177706 | ndwiga.zachary@embuni.ac.ke | njagizachary@gmail.com
ORCID: 0000-0002-3334-776X

RESEARCH PROFILE

Education researcher and university lecturer with a PhD in Curriculum Studies and extensive experience in Africa-led, locally grounded education research, curriculum development, competency-based education and assessment, research supervision, professional training, and evidence generation. Research and scholarly work spans curriculum implementation, learning outcomes, assessment, digital and technology-enhanced learning, language and Kiswahili education, educational leadership, gender and access to education, and African contextual perspectives. Experienced in translating research and curriculum expertise into training, policy-facing technical work, manuals, online learning resources and postgraduate research capacity

RESEARCH ALIGNMENT

- Relevant education research: curriculum implementation, competency-based education and assessment, learning outcomes, teaching and learning, and educational leadership.
- African and locally grounded perspectives: Kiswahili and language education, decolonizing education, indigenous/local knowledge and context-responsive educational practice.
- Equity and inclusion: research addressing gender, access to education, socioeconomic and belief-related barriers, and diverse learner/community experiences.
- Research-to-policy and practice: KICD curriculum work, KNEC Competency-Based Assessment, national teacher-training initiatives, curriculum policy review and quality assurance.
- Research capacity strengthening: postgraduate supervision, CBE lead training, Training-of-Trainers, national literacy programme training and development of training resources.
- Research communication and knowledge products: peer-reviewed publications, book chapters, online modules, training manuals and conference/professional presentations.

CORE RESEARCH & TECHNICAL EXPERTISE

- Education research design, evidence generation and postgraduate research supervision
- Competency-Based Education (CBE) and Competency-Based Curriculum (CBC)
- Curriculum design, review, implementation, monitoring and evaluation
- Competency-Based Assessment and measurement of learning outcomes
- Language and Kiswahili education; decolonizing education and African perspectives
- Teaching, learning, experiential learning and technology-enhanced learning
- Gender, access, equity and inclusion in education
- Educational leadership, school management and institutional capacity
- Stakeholder consultation, technical working groups and participatory curriculum validation
- Research capacity building, Training-of-Trainers and professional development
- Development of training manuals, curriculum resources and online learning modules
- Research communication, scholarly publication and policy/practice engagement

EDUCATION & PROFESSIONAL QUALIFICATIONS

2025:	Micro Credential Degree in Educational Innovation and Leadership, Tallinn University
2022	Competency-Based Assessment, Kenya National Examinations Council (KNEC)
2022:	Designing Competency-Based Curriculum, Kenya Institute of Curriculum Development (KICD)
2024 – Present:	MA Kiswahili, University of Embu (ongoing)
2010 – 2016:	PhD in Curriculum Studies, University of Nairobi, Kenya
2001–2006:	MEd in Curriculum Studies, University of Nairobi, Kenya
1993–1997:	B.Ed. (Arts), University of Nairobi, Kenya

ACADEMIC & PROFESSIONAL EXPERIENCE

- May 2017–Present: Lecturer, Curriculum Studies, University of Embu
- September 2022–2024: Departmental Exams Coordinator, University of Embu
- January 2013–February 2017: Lecturer and Coordinator, Kisii Campus, Kenya Methodist University
- 2009–April 2013: Assistant Lecturer, Department of Education, Kenya Methodist University
- 2003–May 2009: Lecturer, Kagumo Teachers Training College
- 1997–2002: Graduate Teacher, Umu-Salama Girls Secondary School, Garissa

- Panel Member, Kenya Institute of Curriculum Development (KICD), since 2005, contributing to curriculum development and review processes.
- Expert Panelist, Teacher Education Curriculum Design, KICD since 2022.
- Expert Panelist, Junior and Senior Secondary Curriculum Design, KICD since 2019.
- Expert Panelist, DJSTE Curriculum Design and Policy Review, 2026.
- Contracted Professional, Kenya National Examinations Council (KNEC), Competency-Based Assessment in Teacher Education, since 2019.
- National Lead Trainer, Kenya Primary Literacy Programme (KPLP), 2024–2027; participated in development and editing of training materials.
- Facilitator, Competency-Based Education Faculty Re-tooling, Pwani University, February 2026.
- Expert Panelist/technical contributor in curriculum and policy review, teacher education, senior secondary education and competency-based reforms.
- Expert Panelist in initial development of online modules for the Open University of Kenya (2024)
- Member, Kenya Universities Quality Assurance Association (KuQAN).

RESEARCH THEMES DEMONSTRATED IN PUBLICATIONS

- Curriculum, pedagogy & learning outcomes: Explicit teaching methods, experiential learning, constructive simulation, lesson planning and learning achievement.
- Technology-enhanced learning: Generation differences in awareness and adoption of technology-enhanced anticipatory sets among teachers.
- Language & Kiswahili education: Kiswahili composition writing, language education and the use of Kiswahili for public education.
- Gender, access & inclusion: Gender traits and subject choice; gender-based challenges; barriers to education access linked to social, cultural and belief contexts.
- Educational leadership & school improvement: Instructional leadership, strategic planning, management strategies and school-level factors influencing learning outcomes.
- African/local knowledge & decolonizing education: Decolonizing language and education, oral tradition, cultural perspectives and locally grounded educational questions.

Postgraduate Supervision

Ongoing PhD Supervision

1. Victor Okoth Saoke (University of Embu): *Self-Efficacy Management, Attitudinal Differences, Preferences and Use of Technology-Enhanced Anticipatory Sets in Instructional Strategies of Secondary School Teachers in Homabay County, Kenya.*
2. John James Juma (University of Embu): *Curriculum Implementation Leadership in Junior Secondary Schools in Kenya: A Distributed Leadership Perspective.*
3. Grace Wanja Murithi (University of Embu): *Learners' Self-Efficacy and Performance in the Topic of Probability: A Case of Selected Secondary Schools in Meru County, Kenya.*
4. Tarsianer Muthanje Peter (University of Embu): *Teachers' Preparedness on Implementation of Competency-Based Curriculum in Public Junior Secondary Schools in Embu County.*

Ongoing MEd Supervision

1. Maina Esther Wambui (University of Embu): *Stress and Its Effects on Academic Performance among Students in Public Secondary Schools in Murang'a County, Kenya.*
2. Sylvia Gacheri Gitonga (University of Embu): *Determinants in Utilization of Teaching and Learning Resources on Learning Achievement in History and Government in Secondary Schools in Tharaka-Nithi County, Kenya.*
3. Lucy Njoki Kibuti (University of Embu): *Influence of Principals' Instructional Supervision Practices on Students' Performance in Secondary Schools in Embu North Sub-County.*
4. Samwel Kirogo Gachoki (University of Embu): *Effectiveness of Assessment Tools in Testing Problem-Solving Competency among Grade 6 Learners in Mathematics in Kirinyaga East Sub-County, Kenya.*
5. Lydia Murugi Nyaga (University of Embu): *Acquisition of Digital Literacy Skills among Grade Eight Learners in Kiswahili.*

Completed PhD Supervision

1. Eunice Ruraa Mugendi (University of Embu -2026): *Predictors of Choice for Physics Subject in Secondary School in Isiolo and Nyeri Counties, Kenya.*
2. Samwel Kibori Mbui (Kenya Methodist University-2024): *Influence of Service Contract Implementation on Performance of Teachers in Public Primary Schools in Embu County, Kenya.*
3. Pachomius Wambugu (Kenya Methodist University -2021): *Drama Participation as a Strategy in the Management of Discipline among Students in Secondary Schools in Central Region, Kenya.*

Completed MEd Supervision

1. Kelvin Muthamaki Muchomba (University of Embu -2026): *An Exploratory Study on the Spiritual Formation, Socioeconomic Status, Religious Beliefs and Access to Education (Enrollment, Retention and Progression) among the Kabonokia Followers in Tharaka North Sub-County, Kenya.*
2. Annis Mugo (University of Embu -2025): *Constructive Simulation and Learning Outcome of Christian Religious Education in Secondary Schools in Embu County.*
3. Victor Okoth Saoke (University of Embu -2023): *Analysis of Application of the Five-Stage Lesson Plan Framework in Teaching Christian Religious Education in Meru County, Kenya.*
4. John James Juma (University of Embu -2023): *School Principals' Administrative Functions and Their Influence on Students' Learning Outcomes in Secondary Schools in Rangwe Sub-County, Kenya.*
5. Patrick Karinga Munuhe (Kenya Methodist University-2021): *Determinants of Academic Performance among Mature Entry Students: A Case of Nakuru and Nairobi Campuses of Kenya Methodist University.*
6. Paul Mworio Bagine (Kenya Methodist University-2023): *Effects of Principals' Management Strategies on Students' Academic Performance in Public Secondary Schools in Imenti North Sub-County of Meru County.*
7. Dancun Ndiritu Gichu (Kenya Methodist University -2019): *Challenges that Head Teachers Face in Implementing Strategic Management Plans in Public Secondary Schools in Nyeri South Sub-County, Nyeri County, Kenya.*
8. Elizabeth Waithira Maguta (Kenya Methodist University -2019): *Gender-Based Challenges Encountered by Female Students in School-Based Bachelor of Education Programme at Kenyan Private Universities, Kenya.*

SELECTED PEER-REVIEWED PUBLICATIONS

1. Muchomba, K.M., Ciriaka, M.G. & **Ndwiga, Z.N.** (2026). The spiritual practices impeding access to education among the Kabonokia followers in Tharaka North Sub-County, Kenya. *Cogent Arts & Humanities*, 13(1), 2698371. DOI: 10.1080/23311983.2026.2698371.
2. Saoke, O.V., Ndwiga Ciriaka, M.G., **Ndwiga, Z.N.**, Atitwa, E.B. & Musafiri, C.M. (2026). Generation differences in awareness and adoption of technology enhanced anticipatory sets among teachers in Kenya. DOI: 10.1007/s44217-026-01668-7.
3. Saoke, O.V., **Ndwiga, Z.N.** et al. (2025). The Relationship Between Teachers' Planning and Content Delivery Using the Five-Stage Lesson Plan Structure: An Analysis of Age, Gender, Experience and Academic Qualifications in Kenya. *European Journal of Education*, 60, e70021. DOI: 10.1111/ejed.70021.
4. Mugendi, E., Ciriaka, G., Rugano, P. & **Ndwiga, Z.N.** (2024). Correlates Gender Traits and Mindset on the Choice of Physics Subject at High School in Kenya. *International Journal of Evaluation and Research in Education*, 13(1), 398–406.
5. Mugo, A.M., Nyaga, M., **Ndwiga, Z.N.** & Atitwa, E.B. (2024). Evaluating Learning Outcomes of Christian Religious Education Learners: A Comparison of Constructive Simulation and Conventional Method. *Heliyon*, 10(11).
6. Juma, J.J., Nyaga, M. & **Ndwiga, Z.N.** (2022). Strategic Planning in Secondary Schools in Rangwe Sub-County, Kenya: Influence on Student Learning Outcomes. *Management in Education*.
7. Wambugu, P., **Ndwiga, Z.N.** & Wachira, R. (2021). Influence of Drama Rehearsals in Regulating Students' Behaviour and Management of Discipline in Secondary Schools in Central Region, Kenya. *European Journal of Education Studies*, 8(9).
8. Juma, J.J., **Ndwiga, Z.N.** & Nyaga, M. (2021). Instructional leadership as a controlling function in secondary schools in Rangwe Sub County, Kenya: Influence on students' learning outcomes. *Educational Management Administration & Leadership*.
9. **Ndwiga, Z.N.**, Odundo, P.A., Nyagah, G. & Mbuthia, E.M. (2020). Appropriateness of Explicit Teaching Methods on Learners' Achievement in Kiswahili Composition Writing. *JESAR*, 6, 1–9.
10. Bagine, P.M., Kaberia, I.K. & **Ndwiga, Z.N.** (2019). Principal's Management Strategies Implementation Challenges Effect on Learner's Academic Performance in Public Secondary Schools in Meru County, Kenya. *American International Journal of Business Management*.
11. **Ndwiga, Z.N.** & Odundo, P.A. (2015). Kolb's Experiential Learning Theory (ELT): Kiswahili Composition Writing Perspective. *Research Journal of Education*.
12. Karinga, P.M; Kathuri, J. N and **Ndwiga, Z. N** (2018). *Determinants of Academic Performance Among Mature Entry Students: A Case of Nakuru and Nairobi Campuses of Kenya Methodist University*. **JRDO-Journal of Educational Research ISSN: 2456-2947 Volume-3, Issue-7; July, 2018**
13. Gichu, D.N; Kibaara T and **Ndwiga, Z.N** (2017). *Challenges Faced by Head Teachers in Public Secondary Schools in Nyeri South Sub County, Nyeri County, Kenya*'. **International**

Book Chapter

1. Mbuthia, E.M & **Ndwiga, Z.N (2025)**. *Nafasi ya Kiswahili Katika Uangamizaji wa Ubebebru wa Kitamaduni*. Katika Fasihi na Masuala Ibuka. Real Text Publishers; Eldoret. Pp 161-170
2. Njoki N. Zuhra E & **Ndwiga, Z.N (2019)**. *Navigating the Politics of the Academe*. Diversity and Triumphs of Navigating the Terrain of Academe (Heagans, R & Frierson, H.T Eds). Emerald; UK. Pp 87-106. ISBN-978-1-78973-608-3(print); ISBN-978-1-78973-607-6 (online).

Training Manual

1. Subira, N; Makau, C; Kungania, **Ndwiga, Z.N** & M; Omollo, G(2017). VGA Training Manual : A Revised Handbook for training Graduates for Volunteer Work. Nairobi; Ministry of Education.
2. MOE (2024). Teacher Training Manual for The Kenya Primary Literacy Programme. Developed in conjunction with the Republic of Kenya and the USAID. (*Participated as National Lead Trainer in Manual development and editing*).
3. MOE (2024). Mentorship and Coaching Training Manual for Implementing KPLP. Developed in conjunction with the Republic of Kenya and the USAID. (*Participated as National Lead Trainer in Manual development and editing*).
4. MOE (2024) Head of Institution Sensitization Manual Implementing KPLP. Developed in conjunction with the Republic of Kenya and the USAID. (*Participated as National Lead Trainer in Manual development and editing*).

RESEARCH CAPACITY BUILDING, SUPERVISION & KNOWLEDGE PRODUCTS

- Postgraduate supervision across PhD and MEd programmes in curriculum implementation, competency-based education, assessment, educational leadership, technology-enhanced learning, learning outcomes, gender and access to education.
- CBE Lead Trainer and facilitator for competency-based education faculty re-tooling.
- Lead Trainer for Training-of-Trainers, G-United National Volunteer Programme (2018–2019).
- National Lead Trainer, Kenya Primary Literacy Programme (2024–2027).
- Technical Team Member, review of the G-United National Volunteer Programme Training Manual (2017).
- Developed and validated an online module in Curriculum Development and Design for the Open University of Kenya (2024).
- Contributed to development/editing of Kenya Primary Literacy Programme Teacher Training, Mentorship and Coaching, and Head of Institution Sensitization Manuals (2024).
- Editor of published proceedings of the 1st Annual Conference on Decolonizing Education, University of Embu (2019).

SELECTED CONFERENCES & SCHOLARLY ENGAGEMENT

- 2026: Kiswahili na Masuala Mtambuko katika Karne ya 21: Kiswahili na Elimu ya Umilisi; Tathmini ya Umilisi katika Ufundishaji wa Kiswahili.
- 2025: Remembrance and Resonance: Honouring Prof. Henry Stanley Kabeca Mwaniki and the Place of Oral Tradition in Modern Historical Practice.
- 2025: Alignment of Graduate Teacher Training for Competency Based Education — Panelist/Rapporteur.
- 2023: Values and Life Skills Africa Conference: Unlocking the Power of Values and Life Skills in Context.
- 2018: Decolonizing Education: Decolonizing Language in Kenya by Use of Kiswahili Language for Public Education.
- 2017: Harnessing Innovative Research, Innovation and Technology to Realize the Sustainable Development Goals.
- 2015: Mainstreaming Research Commercialization for Sustainable Development.

PROFESSIONAL AFFILIATIONS

- Kenya Institute of Curriculum Development (KICD): Panel Member since 2005.
- Kenya National Examinations Council (KNEC): Contracted Professional on Competency-Based Assessment in Teacher Education since 2019.
- Kenya Universities Quality Assurance Association (KuQAN): Member.
- Universities Deans of Education Forum: Secretariat since 2023.
- State Department for Basic Education: Master Trainer, Kenya Primary Literacy Programme, 2024.

LEADERSHIP & COMMUNITY ENGAGEMENT

- Chairman, UoEm TIVETi Board of Governors.
- Member of The Catholic Diocese of Embu Finance Council (2025- Present)
- Chairman, Board of Management, St. Teresa Girls Secondary School, Embu (2025–Present).
- Chairman, Board of Management, Consolata Girls Secondary School, Embu (2025–Present).
- Moderator of the Diocesan Pastoral Council (2019 – 2025): Catholic Diocese of Embu
- Previous Board of Management and academic committee leadership roles in secondary schools in Embu County.

REFEREES

1. Prof. Paul Amollo Odundo
Department of Educational
Communication & Technology
University of Nairobi
P.O Box 30197,
NAIROBI.
odundopaul@uon.ac.ke
Tel: +254723 176514

2. Prof. Evan Murage Mbuthia
Department of Kiswahili and
Indigenous Languages
University of Nairobi
P.O Box 30197,
NAIROBI.
mbuthiaevans@yahoo.com
Tel : 254 0722 623 335.

3. Subira Neema
Senior Deputy Director,
Secondary Education
Kenya Institute of
Curriculum Development
Desai Rd, Off Muranga Rd,
Nairobi, Kenya
TEL: 0722 556 953