



CURRICULUM VITAE

Personal Information

Name: Duncan Wasike Wekesa
Nationality: Kenyan
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Marital Status: Married, with children
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Education and Training Awards

Doctor of Philosophy in Mathematics Education, Masinde Muliro University of Science and Technology, Kakamega, Kenya. With special interest in Computer-Based Instruction, 2013

Thesis Title: Effects of Computer-Based Instruction on Kenyan Secondary School Students' Learning Outcomes on Probability Concepts, November 2013

Master of Education (Science Education), Egerton University, Njoro, Kenya With special interest in language problems in mathematics instruction, 2003.

Thesis Title: Effects of a Socialized Mathematical Language Module on Students Understanding of Statistics and Their Perception of the Learning Environment: A Case of Form Two Students of Bungoma District, Kenya, March 2003

Bachelor of Education, Egerton University, Laikipia Campus, November, 2000.

Project Title: Design and Development of 3-Dimensional Models for Teaching Secondary School Mathematics in Kenya.

Kenya Certificate of Secondary Education (K.C.S.E), Kibabii Boys High School – Bungoma, Kenya, 1991 – 1994

Kenya Certificate of Primary Education (K.C.P.E), Misanga Pimary School, Bungoma, 1983 - 1990.

Short Courses Attended

November, 2016: Attended Curriculum Review Workshop at Joventure Prestige Hotel, Kisumu

February, 2016: Attended Module writing Workshop at Ndupawa Prestige Hotel, Eldoret, Kenya

August, 2015: Attended Staff Induction workshop on Pedagogy, Kibabii University

April, 2004: Attended Strengthening Science and Mathematics in Secondary Schools in Kenya (SMASSE), Kakamega inset

April/May, 2001: Trained in Computer Application Packages, Egerton Unuversity, Njoro, Kenya

October, 1999: Trained on Dealing with Simple Accidents in the Home and Community. A First-Aid Course with Kenya Red-Cross Society.

March, 1998: Attended a Preliminary Training Course in Scouting, Egerton University, Laikipia Campus.

Professional Positions and Employment

August 2015 – to date: Appointed Senior Lecture (Mathematics Education) in the Department of Science and Mathematics Education, Kibabii University, Bungoma, Kenya

September, 2013 – July 2015: Part time Lecturer, Kibabii University College

June 2012 – July 2015: Appointed Senior Lecturer in the Department of Science and Mathematics Education, Masinde Muliro University of Science and Technology, Kakamega, Kenya

December, 2007 – June 2012: Appointed Lecturer in the Department of Science and Mathematics Education, Masinde Muliro University of Science and Technology, Kakamega, Kenya

July, 2003 –November 2007: Appointed Assistant Lecturer in the Department of Science and Mathematics Education, Western University College of Science and Technology, Kakamega, Kenya.

July, 2002 – June, 2003: Appointed Graduate Teacher, Ikonyero Secondary School, Kakamega, Kenya

May, 1999- August, 1999: Student Teacher Matulo Friends Secondary School, Webuye, Kenya

Curriculum Activities

September, 2016 – to date: Appointed member of Kibabii University Curriculum Review Committee for reviewing Programs in the University

September, 2015 – to date: Appointed Coordinator and team member for reviewing Programs in Faculty of Education and Social Sciences in the Department of Science and Mathematics Education, Kibabii University

September, 2015 – to date: Appointed Coordinator and team member for Designing Teaching Modules for Undergraduate Programs in Faculty of Education and Social Sciences, Kibabii University

January, 2013 – July, 2015: Team member for reviewing Programs in Faculty of Education and Social Sciences in the Department of Science and Mathematics Education, Masinde Muliro University of Science and Technology

January - May, 2012: Team member for Designing Teaching Modules for Undergraduate Programs in Faculty of Education and Social Sciences in the Department of Science and Mathematics Education, Masinde Muliro University of Science and Technology

January - May, 2004: Team member for Designing MSc. Mathematics Education Program in the Department of Science and Mathematics Education, Western University College of Science and Technology

July - September, 2004: Team member for Designing BSc. Primary Education Program in the Department of Science and Mathematics Education, Western University College of Science and Technology

Professional Responsibilities

January, 2018 – to date: Appointed as External Examiner for University of Eldoret, Eldoret, Kenya

November, 2017 – to date: Appointed Director, Privately Self Sponsored Students Program (PSSP) and other Income Generating Units (IGUs), Kibabii University, Bungoma, Kenya

July, 2016 – December, 2016: Appointed as Convener of Resource Mobilization and member for the Organizing Committee for the 2nd Kibabii University International Conference, Kibabii University

April, 2016 – to date: Appointed as Member, University Curriculum and Programs Review Committee, Kibabii University

January, 2016 – November, 2017: Appointed as Faculty Representative to University Senate in Faculty of Education and Social Sciences of Kibabii University

October, 2015 – June 2016: Appointed as Vice Chairman and member for the Organizing Committee for the 1st Kibabii University International Conference, Kibabii University

September, 2015 – to date: Appointed Faculty Coordinator for Curriculum Review and Development of new Programs in the Faculty of Education and Social Sciences, Kibabii University

September, 2015 – to date: Appointed Faculty Examinations Coordinator in the Faculty of Education and Social Sciences, Kibabii University

February, 2015 – April 2015: Acting chairman, Department of Science and Mathematics Education in the Faculty of Education and Social Sciences of Masinde Muliro University of Science and Technology

September, 2014 – December 2014: Acting chairman, Department of Science and Mathematics Education in the Faculty of Education and Social Sciences of Masinde Muliro University of Science and Technology

January 2011, – December 2013: Appointed Senior Coordinator for PSSP, Masinde Muliro University of Science and Technology, Kakamega, Kenya.

January, 2007 – September 2008: Appointed University Timetable and Examinations Coordinator, Masinde Muliro University of Science and Technology, Kakamega, Kenya.

July, 2005 – August 2011 Appointed Faculty Coordinator for PSSP in the Faculty of Education and Social Sciences of Masinde Muliro University of Science and Technology, Kakamega, Kenya.

January, 2004 – August 2007: Appointed Faculty Timetable and Examinations Coordinator in the Faculty of Education and Social Sciences of Masinde Muliro University of Science and Technology, Kakamega, Kenya.

Other Responsibilities

January, 2018 – to date: Appointed Member Parents Association representing Form One Central, St. Patrick's High School, Iten

August – October, 2017: Support Election Trainer and Presiding Officer in the 2017 National General Elections, Webuye East Constituency

February, 2017 – to date: Chairman and member, St. Michael Nasaka Secondary School Board of Management

January, 2016 – to date: Appointed Chairman and member, St. Peters Mwiruti Girls Secondary School Board of Management

February-March 2013: Support Election Trainer and Presiding Officer in the 2013 National General Elections, Kanduyi Constituency

January 2011 – January 2017: Member, School Committee, Nasaka R.C Primary School

January 2009 – to date: Chairman of Academic Committee and Member, Misanga Girls Secondary School Board of Management

August 2010: Presiding Officer, National Constitution Referendum, Kanduyi Constituency

March 2010 – September, 2015: Patron and Founder Member Masinde Muliro University of Science and Technology Rover Scouts Crew

March 2005 – to date: Patron, Our Blessed Mother Mary Seat of Wisdom, Masinde Muliro University of Science and Technology Catholic Chaplaincy

December, 2007: Presiding Officer, 2007 General Elections, Kanduyi Constituency

August, 1999: Enumerator, 1999 National Population Census, Bukembe Location

December, 1998 – December, 1999: Captain, Laikipia Campus Soccer Team. Participated in the 3rd East Africa Inter-University Games, Njoro, Kenya

March, 1998 – March, 2000: Chairman, Bungoma University Students Association of Egerton University, Laikipia Campus

August 1997 – December 1999: Organising Secretry/Fundraiser and Founder Member, Kenya Red-Cross Society- Laikipia Campus Chapter

March, 1997 – March, 2000: Secretary General and Founder Member, Laikipia Campus Rover Scouts Crew.

February 1992 – August 1994: Scouts Troop Leader, Kibabii Boys. Participated in the final National Scouts Competitions, Rowallan Camp, Nairobi, 1993

Publications and Reports

a) Journal articles

1. **Wekesa, D.W.**, A Program for Understanding Mathematical Probabiliy Concepts in Secondary Schools. **In press** *International Journal of Development Research*
2. **Wekesa, D.W.**, Computer Based Instruction: A Springboard to Students Performance in Mathematics. *International Journal of Innovation Research and Development, vol.6 Issue 6 of January 2017 ISSN: 2278-0211(online)*
3. **Wekesa, D.W.**, Effectiveness of Computer Based Instruction: An Analysis by Gender. *International Journal of Development Research, vol.7 Issue 1 of January 2017, ISSN: 2230-9926 (online), pp 11267-11271*
4. Odhiambo M.N. and **Wasike, D.W.** Effectiveness of Scientific Calculators on Secondary School Students Attitude Development in Mathematics. *Journal of Education Research and Behavioral Sciences, Vol 5(7), December 2016. ISSN 2315- 8735 © Apex Journal International*

5. Odhiambo M.N. and **Wasike, D.W.** Influence of Selected Teacher Instructional Strategies on Secondary Schools Students' Mathematics Learning Outcomes. *International Journal of Advanced Research*, Vol 4(12): 2065-2074 December, 2016.
6. Odhiambo M.N., **Wasike, D.W** and Toili, W.W. Effect of Instructional Strategies on Students Attitude Development towards Mathematics in Mumias Sub-County. *International Journal of Management Science and Technology*, vol 3 Issue.8, September 2015. ISSN 2321- 8848 (print) ISSN 2320- 0362 (online)
7. Odhiambo M.N., **Wasike, D.W** and Toili, W.W. Influence of Instructional Practices on Secondary School Students Achievement in Mathematics. *Journal of Education and Practice*, vol 6 No. 26, September 2015. ISSN 2222- 1735 (paper) ISSN 2222- 288X(online)
8. Shikuku B.N and **Wasike D.W.** Problem Based Learning and its Effect on Secondary School Students Learning Outcomes in Linear Programming. *Point Journal of Educational Research and Behavioral Sciences*, vol 1(2):001-008, August, 2015(online at <http://www.pjournals.org/PJERBS>)
9. **Wekesa, D.W.**, Impact of Computer Based Instruction on Secondary School Students Understanding of Probability. *Asian Academic Research Journal of Multidisciplinary*, vol1 Issue 25 of September 2014. ISSN: 2319- 2801
10. **Wekesa, D.W.**, Wekesa, E.W and Amadalo, M.M., A Computer Mediated Simulation Module for Teaching Cell Division in Secondary School Biology. *International Journal of Education Research and Development*, vol 2(5), pp 114-130, May 2013.
11. Amadalo, M. M, Shikuku, B.N., and **Wasike, D.W.**, Investigation of Factors that Influence Syllabus Coverage in Secondary School Mathematics in Kenya. *Journal of Humanities and Social Sciences*, vol 2 no. 15, August 2012. ISSN 2220-8488 (for print),2221-0989(for online)
12. **Wasike, D.W.**, and Michieka, R.M. A Program for Understanding Statistics in Kenyan Secondary Schools. *Journal of Education and Social Sciences*, volume 1 Number 2, pp 61-67, October 2011. ISSN:2223-490X
13. Amadalo, M.M., **Wasike, D.W.**, and Wambua, J.M. Effectiveness of Teaching Preparations on Mathematics Achievements: The Case of Kenya. *Problems of Education in the 21st Century: Recent Issues in Science and Technology Education*, vol 31 (31):7-17, July 2011. ISSN 1822-7864

14. Michieka, R.M. and **Wasike, D.W.** Effectiveness of Micro-Science Kits in Teaching Primary Science in Kenya. *Journal of Education and Social Sciences, Volume 1 Number 1, pp 111-116, June 2011.ISSN:2223-490X*
15. **Wasike, D.W.,** Wekesa E.W., Ndiku J.M., and Maiyo J.K. Students' Reactions to the Use of Computers in Science Education in Selected Secondary Schools. *Problems of Education in the 21st Century: Recent Issues in Science and Technology Education, Vol 9, December 2008. ISSN 1822-7864*
16. Maiyo, J.K., Achoka, J., Ndiku, J.M., Amunga, J. and **Wasike, D.W.** Income Inequality Controversies on the Development of Education in Kenya. *Problems of Education in the 21st Century: Peculiarities of Contemporary Education. Vol 7, June 2008. ISSN 1822-7864*
17. **Wasike, D.W.** and Mondoh, H.O. Effect of a Socialized Mathematical Language Module on Students' Understanding of Mathematics and their perception of the Learning Environment. *Contemporary Development issues in Kenya, Vol 1, April 2007*
18. **Wasike, D.W.** Exemplary Practice and Outcome-Based Mathematics Instruction in Kenyan Secondary Schools. *Journal Science Education. Volume 8 Number 1, January, 2007. ISSN 0124-5481*
19. **Wasike. D. W.** Effective of a Language Based Program In School Mathematics on Students' Understanding of Statistics. *Eurasia Journal of Mathematics, Science and Technology Education. Vol 2 No. 3, December 2006*

b) Modules written

1. Wasike, D.W, Kati, R.O and Masibo, E (2016). Quantitative Skills II
2. Kati, R.O, Wasike, D.W, and Masibo, E (2016). Quantitative Skills I
3. Wasike, D.W (2011). Introduction to Mathematics

Research Undertaken and Thesis Supervision

(a) Research Undertaken

1. Effects of Computer-Based Instruction on Kenyan Secondary School Students' Learning Outcomes on Probability Concepts, November 2013

2. Effects of a Socialized Mathematical Language Module on Students Understanding of Statistics and Their Perception of the Learning Environment: A Case of Form Two Students of Bungoma District, Kenya, March 2003
3. Design and Development of 3-Dimensional Models for Teaching Secondary School Mathematics in Kenya, August 1999

(b) Thesis Supervision

i) Doctorate level

1. Wambeye, K. M. Water, Sanitation and Hygiene Policy and its Effect on Schools Participation in Bungoma County, Kenya (at proposal stage, Kibabii University)
2. Classroom Interaction Patterns and the Learning of Secondary Mathematics in Mt. Elgon Sub-County, Kenya (at data collection stage, Kibabii University)
3. Nandwa, M.O. *Influence of Instructional Practices on Students Achievement in Mathematics: A Case of Form Three Students of Mumias Sub-county, Kenya* (MMUST, 2016)

ii) Masters level

1. Sogoni, P.K. *Secondary School Students Performance in Kinematics using Cooperative Learning and Conventional Learning in Sabatia Sub-County, Kenya* (MMUST, 2017)
2. Wekullo, B.J. *Concept Mapping Approach on Students Mathematical Performance in Kenyan Secondary Schools* (MMUST, 2014)
3. Makokha, I.W. *A Study of Experiences of Incorporating Learning Tasks During Mathematics Instruction in Secondary Schools in Kenya* (MMUST, 2012)
4. Khalejera, J.L. D.W. *Influence of Pedagogical Factors on the Implementation of Mathematics Curriculum in Primary Schools in Kenya* (MMUST, 2012)
5. Mayama, L. *Effect of Proprietor Interest in Educational Investment on Quality of Education Provided in Private Secondary Schools in Bungoma South District, Kenya* (MMUST, 2012)
6. Wambua, J.M. *Effectiveness of Teaching Preparations on Students Achievements, Motivation and Classroom Interactions in Mathematics in Public Secondary Schools, Makueni District, Kenya* (MMUST, 2010)

7. Shikuku, B.N. *Effect of Syllabus Coverage on Students Performance in Mathematics: A Case of Kakamega South District, Kenya* (MMUST, 2009)

Thesis Examination

(a) Internal Examination

1. Richard Donkor - MSC/STA/002/13. *Estimation of Weight of Infancy at Birth Based on the Mothers Prenatal Information* (Kibabii University, October, 2016)
2. Elizabeth Akinyi Oloo – MED/CIT/006/13. *Influence of the use of peer teaching methods on performance in mathematics among secondary school students in Kenya* (Kibabii University, January 2016)
3. Lipuku Sween – EDS/G/07/10. *Effect of Computer Simulations in Transverse Waves on Physics Performance in Secondary Schools in Kenya* (MMUST, October 2015)
4. Lipuku Beldina – EDS/G/01/10. *Video Based Instruction and Performance in Electromagnetic Induction Concepts in Secondary Schools in Kenya* (MMUST, August 2015)
5. Bwasi, Antony Sifuna. *Implementation of Strengthening Mathematics and Science in Education Programme in Teaching Biology in Secondary Schools in Kenya* (MMUST, July 2015)
6. Ocholla, Alphayo Abacha. *Intensive Physics Practical Work and its Influence on Form Two Students Performance in Kakamega South Sub-county, Kenya* (MMUST, May 2015)
7. Muhavi, Lucy S. *Effect of Internal Quality Assurance Mechanisms on Academic Performance in Public Secondary Schools in Kakamega Central Sub-County* (MMUST, January 2015)
8. Beatrice Nakhanu Shikuku. *Problem Based Learning Technique and Its Effect on Kenyan Secondary School Students Performance in Basics of Linear Programming* (MMUST, November 2014)

(b) External Examination

1. Adidja Nyiramafaranga. *The Relationship between Language Proficiency and Performance in Mathematics: A Case study of District Secondary Schools in Kilifi and Malindi Districts, Kilifi County* (Pwani University, June 2014).

Conferences and Workshops Attended

June 19th – 23rd 2017: Attended the 4th Strathmore International Mathematics Conference at Strathmore University, Nairobi. Theme: Enhancing Collaborative Research in Mathematical Sciences.

June 15th – 16th 2017: Attended Kenya DAAD Scholars conference held at Kisumu Hotel, Kisumu. Theme: the Role of Higher Education in the Electoral Process and Democratization of Politics in Kenya.

June 23rd – 24th 2016: Attended 1st Kibabii University International Conference at Kibabii University

August 12th – 16th 2013: Attended the 2nd Strathmore International Mathematics Conference at Strathmore University, Nairobi. Theme: Nurturing the Future Generation of Mathematics Researchers in African Universities. Paper presented: *A Program for Teaching Probability in Kenyan Secondary Schools*.

January, 5th 2012: Code of Conduct and Ethics for Public Universities in Kenya, MMUST

March, 27th 2011: ISO 9001:2008 Awareness seminar for MMUST Staff, MMUST

October, 10th – 15th 2010: Attended Commission of Higher Education and Kenya DAAD Scholars conference held at Norfolk Hotel, Nairobi. Theme: Staff Development, a Key Factor towards Attaining Quality Education in Higher Education

April, 14th – 16th 2010: Attended Kenya DAAD Scholars conference held at Norfolk Hotel, Nairobi. Theme: Intellectual Social Responsibility and the Fight against Corruption in Kenya.

October, 2006: Attended the Organization for Social Science Research in Eastern and Southern Africa training workshop on Research Methodology, in Addis Ababa, Ethiopia.

March, 2006: Attended the Workshop for Chairpersons of Academic Departments on Strengthening Departmental Leadership at Western University at Bishop Stam Pastoral Centre, Kakamega

March, 2006: Attended the Organization for Social Science Research in Eastern and Southern Africa, Kenyan Chapter Workshop at Bishop Stam Pastoral Centre, Kakamega

November, 2005: Attended the Association of Third World Studies International Conference at Bishop Stam Pastoral Centre, Kakamega

October, 2004: Attended a Seminar Organized by the Department of Educational Planning and Management on Strategic Educational Planning and Management in the 21st Century held at Western University.

August, 2004: New Trends in Teaching of Science and Mathematics in Schools, Colleges and Universities held at Kenya Science Teachers College, Nairobi

July, 2004: Staff Induction Workshop for Western university held at Bishop Stam Pastoral Centre, Kakamega. Paper presented: *Developing an Effective University Teaching and Examinations Timetable*

April, 2001: Mathematics and Science Seminar for Secondary School Teachers of Nakuru District held at Nakuru High School

Membership to Professional Organizations

- Member, and chapter official, Kenya DAAD Scholars Association
- Member, OSSREA
- Member, ATWS

Research Interests

- Computer-Based Instruction in Science and Mathematics
- Creativity in Science and Mathematics
- Science Process Skills and Problem Solving in Mathematics
- Alternative Conceptions in Science and Mathematics
- Metacognition in Science and Mathematics

Hobbies

- Playing and watching soccer
- Watching movies and listening to music
- Hiking

Referees

1. Prof. Isaac Odeo Ipara
Vice Chancellor

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BUNGOMA, Kenya
e-mail: vc@kibu.ac.ke

2. Prof. Maurice Amadalo
Deputy Principal (Administration and Finance)
Kaimosi University College, (A constituent college of Masinde Muliro
University of Science & Technology)
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e-mail: mmamadalo@yahoo.com
3. Prof. William Wanjala Toili
Department of Science and Mathematics Education
Masinde Muliro University of Science & Technology
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4. Dr. Robert Kati
Chairperson, Department of Science and Mathematics Education
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