



PROFILE OF WILLIAM WANJALA TOILI

PERSONAL DETAILS

FULL NAME : PROF. WILLIAM WANJALA TOILI

DATE OF BIRTH : 18TH APRIL 1953

NATIONALITY : Kenyan, ID NO 6140801; Passport No. A1186400

MARITAL STATUS : Married

PLACE OF WORK: Masinde Muliro University of Science and Technology (MMUST)
Department of Science and Mathematics Education
P.O. Box 190 -50100
KAKAMEGA, KENYA
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CURRENT APPOINTMENT: Associate Professor in Science and Environmental Education,
Department of Science and Mathematics Education
Masinde Muliro University of Science & Technology

CAREER GOAL : To effectively conduct research, teach and disseminate knowledge and skills in order to empower humanity to realize their potential and control their destiny.

SPECIAL SKILLS

- Communicates well in English, Kiswahili and Luhya
- Setting personal and organizational goals and effectively implementing them.
- Conducting informed guidance and counseling of both youths and adults.
- Preparing effective academic and small scale research proposals and writing comprehensive reports
- Developing and evaluating academic programs at all levels and sectors of education.
- Citizenship action skills such as mobilizing people to conduct informed environmental conservation.
- Organizing successful seminars/workshops/training.
- Preparing effective institutional strategic plans.

EDUCATION AND ACADEMIC QUALIFICATION

1994 – 2001: Doctor of Philosophy in Science and Environmental Education; Maseno University, Kenya. Awarded November, 2001

1988 - 1989 : Master of Education in Science and Environmental Education, School of Education, University of Leeds, England, U.K. Awarded May, 1990.

1987 : Postgraduate Certificate in Environmental Education, Moi University, Kenya. Awarded 1993.

- 1983 - 1985** : Master of Education in Teacher Education (Science Education and Curriculum Development); University of Nairobi, Kenya. Awarded November, 1985.
- 1975 - 1978** : Bachelor of Education in Science (Upper Second Class Honours) in Botany and Zoology, University of Nairobi, Kenya. Awarded November, 1978.
- 1973 - 1974** : Kapsabet High School, Nandi District. Sat for East African Advanced Certificate of Education and obtained two Principles and one Subsidiary in Biology, Geography, and Mathematics respectively.
- 1969 - 1972** : Kolanya High School, Busia District. Sat for East African Certificate of Education/Cambridge School Certificate and obtained Division One (1) (16 points grade aggregate). This was the best performance in the history of the school.
- 1961 - 1968** Mahanga Primary School, Bungoma District. Sat for Primary Certificate of Education and obtained 25 points.

WORKING EXPERIENCE

University Teaching

- 2003 – to date:** Masinde Muliro University of Science & Technology; Department of Science and Mathematics Education.
- Current Position:** Associate Professor
- Responsibilities:** Teaching, conducting research and examining students in the courses Taught; Member of various Senate committees.
- 1998 - 2003:** Senior Lecturer, Maseno University (Environmental Education & Research Methods)
- 1993 – 1998:** Lecturer, Maseno University
- 1990 – 1992:** Assistant Lecturer, Maseno University (Environmental Education & Curriculum Development).

University Administration Duties at MMUST

- 2011-Date** : University Representative to the Credit Accumulation and Transfer Systems (CATS) Project: Education Fields at Commission for Higher Education (CHE).
- 2010** : Ag. Director, Research in Division of Planning, Research and Extension (May July).
- 2005** : Ag. Dean, Faculty of Education and Social Sciences (Jan. –April).
- 2003 – 2010:** Chairman, Department of Science and Mathematics Education.

University Teaching on Part-time Basis

- 2011-Date** : Mount Kenya University, School of Education, Kakamega Campus
- 2008 – to date** : University of Nairobi, College of Education and External Studies, School of Continuing and Distance Education, Department of Extra-Mural Studies, Kakamega Campus and Bungoma Centre.
- 2009-2011** : Maseno University, Department of Educational Management and Foundations.
- 2010-2011** : Bondo University College, Department of Educational Management.

Ministry of Education

Aug - Nov. 1990: Ministry of Education Headquarters, Inspectorate Section.

Position: Senior Inspector of Schools in charge of Primary Science

1985 - 1990: Kenya Institute of Education:

Position: Curriculum Specialist in Primary School Science, Science in Teacher Training Colleges and Resource person in Secondary School Biology.

Responsibilities:

- In servicing science tutors in teacher training colleges in order to improve their skills in science teaching.
- Serving on the National Panel for Setting and moderating external examinations (both the Kenya Certificate of Primary Education and the Kenya Certificate of Secondary Education) at the Kenya National Examination Council.
- Designing, Piloting and Evaluating primary and secondary school Science Curriculum and curriculum materials in Kenya.

Teaching in Secondary Schools and Colleges

- 1985:** Tutor in Science Education and Professional Studies at Kaimosi Teacher Training College.
- 1982-1983:** Teacher of Biology and Dean of Curriculum at St. Joseph's Chepterit Girls High School, P.O. Box 51, Kapsabet.
- 1980-1981:** Teacher of Biology and Head of Biology Department, Ribe High School, P.O. Box 90122, Mombasa.
- 1978-1980:** Teacher of Biology at Allidina Visram High School, P.O. Box 90251, Mombasa.

ACADEMIC AWARDS

- 2013:** Funding by the Israel Government through the Israel Agency for International Development Cooperation, Ministry of Foreign Affairs, to attend one month Seminar on “Education towards Sustainable Development: Training for Educational Personnel-Kenya”, held at the Aaron Ofri International Training Centre in Jerusalem, April 8-May 2, 2013.
- 2011:** Funding by Association of African Universities in collaboration with Association of Universities and colleges of Canada through Canadian International Development Agency to help improve the strategic plan and planning process for Masinde Muliro University of Science and Technology with the assistance of our partner, University of the Fraser Valley, Canada.
- 2008:** Research grant by MMUST through office of the Deputy Vice- Chancellor (Planning, Research and Extension) to conduct Research: “Investigating Metacognitive Abilities among High School students in science.”
- 2005:** Research grant by Inter-University Council for East Africa under the auspices of Lake Victoria Basin Research Initiative (Vicres) to study:
“An Evaluation of the production and utilization of Pumpkins (Curcubita pepo) for poverty reduction among smallholder farmers in Lake Victoria Basin”
- 1994 :** The Kenya, Uganda, Tanzania Educational Research Award,(KUTERA), by courtesy of the International Development Research Centre (IDRC) to train in writing research proposals and conducting qualitative research projects.

CONSULTANCY SERVICES

Review of University Programmes for Accreditation by Commission for University Education

- Feb.2014:** Evaluation of proposed B.Ed (Primary) degree curriculum for Mount Kenya University (for accreditation under auspices of Commission for Higher Education)
- Dec.2012:** Evaluation of proposed B.Ed (Primary) degree curriculum for Riara University (for accreditation under auspices of Commission for Higher Education).

- July, 2012:** Evaluation of proposed B.Ed in Science degree curriculum for Marist International University College (for accreditation under auspices of Commission for Higher Education).
- April, 2012:** Evaluation of proposed B.Ed in Science degree curriculum for Nakuru University (for accreditation under auspices of Commission for Higher Education).
- Nov., 2011:** Evaluation of proposed curriculum for B.Ed in Primary Education for Africa Interstates University, Eldoret (For accreditation under auspices of Commission for Higher Education).
- Jan. 2010:** Evaluation of proposed Curriculum for B.Ed in Science for University of East Africa (for accreditation under auspices of Commission for Higher Education).
- Sept. 2009:** Evaluation of proposed Curriculum for B.Ed in Science for Presbyterian University of East Africa (for accreditation under auspices of Commission for Higher Education)
- Aug. 2009:** Onsite Assessment of Facilities and Personnel for Implementation of B.Ed in Science degree programme of Mt. Kenya University, Thika.
- March 2009:** Evaluation of proposed Curriculum for B.Ed in Science and Counseling for Kenya Methodist University (for accreditation under auspices of Commission for Higher Education – CHE).
- May 2009:** Review of Evaluation Report of the proposed Curriculum for B.Ed (Science) for Mount. Kenya University (For accreditation under auspices of Commission for Higher Education).
- Jan. 2008:** Development of Environmental Education Program, Great Lakes University of Kisumu

Development of Strategic Plans

- 2010-2013 :** Spearheaded revision of MMUST strategic plan through the funds and training provided by the Association of African Universities and the Association of Universities and Colleges of Canada and in partnership with University of the Fraser Valley, Canada.
- 2008 :** Facilitated the Production of Department of Science and Mathematics Education (MMUST) Academic Strategic Plan at the workshop held at Blue York Hotel, Busia in September.
- May 2007:** Facilitator, production of Strategic plan 2007 – 2012: Sigalagala Technical Training Institute, held at Mabanga Farmers Training College, Bungoma.
- 2006 -Date :** Member of Institutional Development Committee for onsite evaluation of facilities for establishment of new study centres and campuses and the production of Strategic plan (2006 – 2011) and its review.
- 2004 :** Facilitated Development of B.Sc (Primary Education) and M. Sc(Education) degree Programs currently in use in the Department of Science and Mathematics Education.

Development of Curricular for Community Based Development

- 2007-2010** Development of training program and instructional materials for small holder farmers in rural households in the Lake Victoria Basin to increase food security and improve health and income generating activities.
- 1990-1991** Developed training materials for primary science teachers and tutors of teacher training colleges in production and use of science teaching materials.
- 1985 -1986** Spearheaded development of curricular and curricular materials for the Undugu Society in Kenya, sponsored by the Government of Kenya and UNICEF, targeting youths who had dropped out of school and street children in Nairobi.
- 1986-87** Spearheaded development of curricular in health and sanitation for low income rural households and their children in primary schools in Coast province, funded by Government of Kenya and UNICEF

SKILLS IMPROVEMENT TRAINING

- 2013 :** Gained skills in mainstreaming “Education for Sustainable Development” in Educational programmes through the one month Seminar on “Education towards Sustainable Development: Training for Educational Personnel-Kenya”, held at the Aaron Ofri International Training Centre in Jerusalem, April 8-May 2, 2013. The

Training was funded by the Israel Government through the Israel Agency for International Development Cooperation, Ministry of Foreign Affairs.

- 2011** : Gained skills in external peer review of universities with specific reference to Standards and guidelines for accreditation of universities in Kenya through” Stakeholders’ workshop on External Peer Review of Universities”, held at the Kenya School of Monetary Studies in Nairobi on 24-25, March 2011. The workshop was sponsored by the Commission for Higher Education.
- 2011** : Gained skills in university strategic planning with a view to incorporating Stakeholders such as industries and the community at large through “Stakeholder Relations in Higher Education for Africa” workshop held at the Kenya School of Monetary Studies in Nairobi on 29-30, October, 2011. The Workshop was sponsored by the Association of African Universities and Association of Universities and Colleges of Canada.
- 2007-2012**: ISO 9000 Awareness and Operationalisation seminars on Quality Management Systems held in MMUST
- 2007**: Evaluation of Research outputs – Vicres – held at Gurndoto Hotel, Arusha, Tanzania.

PUBLICATIONS AND OTHER OUTPUTS

Articles in Journals

1. Echessa, A.C.P, Nyambaka, H, Ondigi, N.A, Omuterema, S, **Toili, W.** et al (2013) Evaluation of micronutrients in seeds of pumpkin varieties grown by smallholder farmers in the Lake Victoria Basin. *African Journal of Food Science and Technology*, Vol.4(10), pp.221-228, December, 2013
2. Echessa, A.C.P, Nyambaka, H, Ondigi, N.A, Omuterema, S, **Toili, W.** et al (2013) Variation of Micronutrients in Pumpkin Fruit varieties grown within the Lake Victoria Basin. *Food Science and Quality Management*, Vol.17, pp.71-81, December, 2013
3. Kevogo, N, **Toili, W.** and Mutsoso, S (2013) Relationship Between Secondary School Students’ Competence in Computer Use and Performance in Biology. *Asian Academic Research Journal of Social Science and Humanities*, Vol.1(17), pp.282-304, November, 2013
4. Kevogo, N, **Toili, W.** and Mutsoso, S (2013) Effect of General Computer Use on Secondary School Students’ Performance in Biology. *Greener Journal of Computer Sciences*, Vol.1(1), pp.016-030, October 2013
5. Ngakhala, J.N, Toili, W.W, and Tsingalia, H (2013) “Extent of Secondary School Students’ Participation in Biology Practicals in Kenya.” *European Journal of Biology and Health Education* (forthcoming).
6. Marble N.Odhiambo, and **Toili, W.W** (2013), “Implications of the use of Electronic Calculators on students’ Performance in mathematics in Secondary Schools in Kenya. *African Journal of Education and Technology*. Volume 3 Number 1 (2013), 10-17
7. Kevogo, N, Toili, W.W and Mutsotso, S.N (2013) “Influence of Class Size on Techniques of Teaching Science in Primary Schools of Vihiga County, Kenya”. *International Journal of Educational Research and Review*. Volume 1(1) February, 2013
8. Akwee P. E, Toili, W.W and Palapala V.A (2012), “Effectiveness of computer based technology integration in teaching and learning of gene concept among high school students, Kenya. *European Journal of Biology and Health Education*. Volume 1 Number 1 and 2. July 2012, 31-52.
9. Barasa B.O M, Toili, W.W and China, S.S (2011) “Assessment of University Students’ Vulnerability to Environmental Health Risks”. *Sacha Journal of Environmental Studies*. Volume 1 Number 2 (2011) 92-102
10. Barasa B.O M, Toili, W.W and China, S.S (2011) “An Evaluation of University Students’ Awareness of Environmental Health Risks and their Attitudes towards the Risks”. *African Journal of Education and Technology*. Volume 1 Number 3 (2011) 62-77

11. Sulungai M.W, Toili W.W and Amadalo,M.M (2011), “Teacher related factors influencing the integration of information technology in the teaching of mathematics in secondary schools in Kenya”. *African Journal of Education and Technology*.Volume 2 Number 1(2011),1-14
12. Barasa O. I and Toili,W.W(2012,)”Secondary school students’ perception of the role of alternative sources of energy in sustainable development.” *International Green Journal of Environmental Education* (forthcoming)
13. Toili W.W et al (2008) Comparative analysis of Production practices and utilization of pumpkins(*Cucurbita pepo* and *Cucurbita maxima*) by small holder farmers in Lake Victoria Basin,East Africa. *African Journal of Environmental Science and Technology* ,Vol.2(9),pp.296-304
14. Toili, W.W. (2002) Secondary School students' Perception of Environmental Quality in Bungoma District, Kenya. Maseno Journal of Education, Arts and Science. Vol. 3 No.1
15. Toili, W.W. (1996) Teaching for Community Environmental Action: An Alternative Instructional Model to Environmental Concepts and Issues in School.The Environmentalist 16(1), 221 - 229.
16. Toili, W.W. (1994) A study of Children's' conception of chemical Reactions. Maseno Journal of Education, Arts and Science. Vol2 No.1 pg.1- 15.
17. Toili, W.W. (1988) Promotion of Scientific Literary in Early Childhood Education: The Kenyan Experience. The Second International Symposium on Natural Sciences in Pre-School and Early Elementary Education Final Report,Portoroz. Yugoslavia.
18. Primary Science Series (6 Titles for Standards 1,2,3,4,6, and 7 pupils books) and Primary Science Teachers guides books 1 - 3, 6 and 7. Published by Kenya Literature Bureau.
19. Toili, W.W. (1993) Twilight Intellectuals: Dons and Politics Equator News N0.4
20. Toili, W.W. (1993) Vocational Education: A Doubtful Venture? Equator News 5
21. Toili, W.W. (1994) Environment and the Child. Equator News No.6
22. Toili, W.W. (1994) Culture, Environment and Development in Kenya. Equator News No.7

Abstracts in conference proceedings

- Toili,W.W(2013)**_Toili W.W (2013) Towards Quality Standards in Science Education in Kenya: Setting the Research Agenda for the Case of Secondary School Biology Curriculum. The 3rd Education Kenya Institute of Curriculum Development Symposium. January 23-24, 2013.
- Toili W.W. et al (2009) A Comparative Study of University Students’ Perception of Biotechnology Applications: The Case of Kenya, Turkey, Lebanon, Slovakia and Jordan. ESERA, Istanbul (August 30-4 Sept 2009).
- Toili,W.W(2009)** Towards Quality Standards in Science Education in Kenya: Case of Biology Curriculum in Secondary Schools. International conference on Education, Kenyatta University. 8-10 July, 2009.
- Toili, W. W. (2007) Theory of Instruction in Environmental Education: Reflections on Action Research Pedagogy. Centre for Environmental Educations. Ahmedabad, India.

Books and papers submitted for publication

1. Toili, W.W (2009) Deprofessionalization of the Teaching career in Kenya: Is it Reversible? Journal of Science, Technology, Education and Management (Resubmitted).

2. Toili, W.W. (2013) Teaching Primary Science in the 21st Century. Jomo Kenyatta Foundation (Submitted).
3. Toili, W.W. (2013) Teaching Biology in Secondary Schools in the 21st Century. Jomo Kenyatta Foundation (Submitted)

Unpublished dissertations and theses

- Ph.D thesis: Impact of Environmental Education on Secondary School Students' Perspectives of Environmental Quality in Bungoma District, Kenya. Maseno University, Kenya, 2001. Supervisors: Prof. W.O. Orwa and Prof. R.T. Ogonda.
- M.Ed. Project: Environmental Education: Towards a Curriculum and Instructional Policy on Primary Schools in Kenya. School of Education, University of Leeds, England (U.K); August 1989.
Supervisor: Dr. G. Knamiller
- M.Ed. Project: A Study of Science Process Skills Acquired Through Primary Science Curriculum: A Case Study of Standard Seven Pupils in Bungoma District, Kenya. University of Nairobi, 1985.
Supervisor: Dr. C. Namuddu.

THESES EXAMINATION

1. Barasa O. Ibrahim, "Secondary school students' perception of the role of alternative sources of energy in sustainable development." M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2010.
2. Chesang Chepyegon, "Use of scientific language in instruction and performance in chemistry: A case of selected schools in Kabarnet Division Baring District." M.Ed Thesis, Kenyatta University, 2010. (External examination).
3. Samuel J. Nyaga, "Comparison of computer assisted instruction and conventional instructional methods in secondary schools in Embu District, Kenya." M.Ed Thesis, Kenyatta University, 2010. (External examination).
4. Polycarp M. Isenyi, "Perception of preservice teachers towards the use of computers in instruction in mathematics in secondary schools in Kenya." M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2012.
5. Redempta A.J Munyendo, "The effects of HIV and AIDS on orphan boys education in public primary schools in Nairobi East, Kenya. M. Ed Thesis, Masinde Muliro University of Science and Technology, 2012.
6. Edward W. Nyongesa, "The head teacher appointment policy in Kenya: Implications for the management of secondary schools in Bungoma East District. M. Ed Thesis, Masinde Muliro University of Science and Technology, 2010.
7. Evans L Chimoita, "Secondary school students' understanding of energy flows in ecosystems: A case of Lugari District, Kenya. M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2010.
8. Henry Wati, "Effects of computer based instruction on mathematics achievement: A case of secondary school students of Kakamega South District." M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2011.
9. Phelistas Watitwa, "An investigation of student related factors that affect in biology practicals in Teso District, Kenya." M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2010.
10. Robert O. Kati, "Re-relationship between teacher factors and primary school mathematics achievement." M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2010.
11. Jane Kwambita Amunga, "The effects of ranking secondary schools and students' in national examinations in Kenya: A case of Kakamega South District." M.Ed Thesis, Masinde Muliro University of Science and Technology, 2010.
12. Jane Barasa, "Effects of conversion of co-educational schools on schools to single sex schools on students' discipline and academic performance." M.Ed Thesis, Masinde Muliro University of Science and Technology, 2010.

13. Muga, L.A. "Factors Affecting Enrolment of Women in Science and Technology Courses in Polytechnics of Kenya. The Case Study of Mombasa Polytechnic." M.Ed Thesis, Maseno University, 2003.
14. Odebero, S.O. "Bursary as a Method of Financing Secondary School Education in Busia, District, Kenya." M.Ed Thesis, Maseno University, 2002.
15. Gogo, J.O. "The Impact of Cost Sharing on Access, Equity and Quality of Secondary Education in Rachuonyo District, Kenya." M.Ed Thesis, Maseno University, 2002.

THESES SUPERVISION

1. D.W. Wasike, 'Effect of computer based instruction on secondary school students' understanding of mathematical probability concepts.' P.hD (Mathematics Education) Thesis, Masinde Muliro University of Science and Technology, 2012.
2. P. Nyongesa, 'Impact of teachers' service commission's usage of management by objectives on teachers' performance in Bungoma County'. M.Sc (Education) Thesis, Masinde Muliro University of Science and Technology, 2013.
3. J. Khasandi, 'Impact of sex education on performance of girls in secondary school education', M.Ed Thesis, Masinde Muliro University of Science and Technology, 2013.
4. C. Bulinda, 'Influence of business process reengineering on performance of communication corporations in Kenya'. M.Sc Thesis, Masinde Muliro University of Science and Technology, 2013.
5. R.J.Songok, ' Teachers' perception of philosophical foundations of environmental education for sustainability in secondary schools of Kenya.' M.Sc(Education)Thesis, Masinde Muliro University of Science and Technology, 2013.
6. J.N.Lyanda, 'Influence of a teacher's gender on student performance in biology in secondary schools in Kenya.' M.Ed Thesis, Masinde Muliro University of Science and Technology, 2013.
7. E.Atieno Mbat, ' Factors affecting secondary school performance in biology in Mumias District, Kenya'. M.Sc (Education) Thesis, Masinde Muliro University of Science and Technology, 2013.
8. Emily Mukabana, 'The rise of women participation in provincial administration leadership in Kenya.M.A(History)Thesis, Mount Kenya University,2013.
9. G.N. Barasa, 'A historical analysis of the influence of economic and socio-cultural factors on women's participation in politics in Kakamega Central, Kenya(1963-2013). M.A (History) Thesis, Mount Kenya University, 2013.
10. C. M. Aurah, 'Assessment of Extent to Which Plastic Bag Waste Management Methods used in Nairobi City to Promote Sustainability. M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2012.
11. J. N. Nakhungu, 'Effect of Selected Educational Inputs on Students' Performance in Secondary Schools of Mumias District, Kenya. M.Ed Thesis, Masinde Muliro University of Science and Technology, 2012.
12. Beatrice M. O Barasa, 'University Students' Perception of Environmental Health Risks: A case of Masinde Muliro University of Science and Technology, . M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2010.
13. Marble N.Odhiambo, 'Implications of the use of Scientific Calculators on secondary school students' achievement in mathematics. M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2010.
14. Beatrice . Anangwe, 'Trend and nature of flow rates of masters of education students in Moi and Maseno universities in Kenya. M.Ed Thesis, Masinde Muliro University of Science and Technology, 2010.
15. Metrine W. Sulungai, 'Teacher related factors influencing integration of computers in mathematics instruction in Kakamega South District secondary schools. M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2010.

16. Akwee Peter Edome, "Integration of computer based technology in teaching and learning of gene concept in secondary schools of Kakamega Central District, Kenya." M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2010.
17. J.R. Onyango, "Factors influencing cost of primary education in public primary schools in Busia District, Kenya." M.Ed Thesis, Masinde Muliro University of Science and Technology, 2011
18. Jason A. Omufwoko, "Secondary school students' understanding of classification of living things in Samia District, Kenya". M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2011.
19. Joyce N. Ngakhala, "Extent of secondary school students' Participation in biology practicals in Lugari, Kakamega County, Kenya. M.Sc Education Thesis, Masinde Muliro University of Science and Technology, 2011.
20. Khatete, I. "The Role of Education in Alleviation of Poverty Among the Urban Slum Dwellers." M.Ed Thesis, Maseno University, 2000/2002.
21. Mitei, R.K. "The Efficiency of Military Distance Learning Program in Kenya." M.Ed Thesis, Maseno University, 2000/2002.
22. Sika, J.O. "Relationship between Recurrent Expenditure and Performance in Secondary Schools in Siaya District, Kenya." M.Ed Thesis, Maseno University, 2000/2002.
23. Barasa, N.E. "Analysis of Flow Trends of Students in Secondary School Education in Funyula Division, Busia District, Kenya." M.Ed Thesis, Maseno University, 2001/2002.
24. Juma, G. "Wastage in Secondary Schools in Vihiga District, Kenya." M.Ed Thesis Maseno University, 2001/2002.
25. Rugar, T.O. "Relationship between Education and Income Among Fishermen of Lake Victoria Landing Beaches in Rachuonyo District, Kenya." M.Ed Thesis, Maseno University, 2001/2002.
26. Owiye, D. O. "Trend in and Factors Affecting Wastage in Primary Education in Siaya District, Kenya. M.Ed Thesis, Maseno University, 2005.
27. Thuo, O. M. "External Efficiency of University – Education and Training in Kenya universities:- Graduates "General Job Competencies in manufacturing industry" M.Ed Thesis, Maseno University, 2005.
28. Olel, M. "The Effect of Parallel Degree Programs on Efficiency and Equity in Public Universities in Kenya and Uganda." Ph.D Thesis, Maseno University, 2002/2003.
29. Ndiku, J. "The impact of school – based management on Academic Performance in selected schools of Western Province, Kenya." Ph.D Thesis, Moi University, 2005/06.
30. Musungu, L. L. "Role of the Headteacher in Academic Achievement in Secondary Schools in Vihiga District, Kenya" M.Ed Thesis, Maseno University, 2007.
31. Cheruiyot, M. K. "The Effect of Cattle Raiding Conflict on Primary Education in Kerio Valley Region, Marakwet District, Kenya" M. Ed Thesis, Maseno University, 2005.
32. Afullo, P.T.O. "Role of the Teacher in the Management of student Discipline in Pulbic Secondary Schools in Bondo District, Kenya." M.Ed Thesis, Maseno University, 2005.

PEER REVIEW

Regularly Reviews articles in the following referred journals:

1. Maseno Journal of Education, Arts and Science – 4 articles
2. International Journal of Environmental and Science Education (Turkey) – 6 articles.
3. Eurasia Journal of Science and Mathematics Education (Turkey)– 3 articles
4. Journal of Science, Technology, Education & Management – 4 articles
5. Editor - Pied Crow Environmental Magazine sponsored by CARE International in Kenya.

VALUE ADDITION TO MMUST

2010-2013 : Spearheaded revision of MMUST strategic plan through the funds and training provided by the Association of African Universities and the

- Association of Universities and Colleges of Canada and in partnership with University of the Fraser Valley, Canada.
- 2010:** Development of University Research Policy now in operation.
- 2008** : Facilitator, Production of Department of Science and Mathematics Education (MMUST) Academic Strategic Plan at the workshop held at Blue York Hotel, Busia in September.
- 2005 -Date:** Member of Institutional Development Committee charged with the responsibility of developing MMUST Strategic Plan that is currently in operation and its review. The committee was also responsible for conducting onsite evaluation of facilities for establishment of new study centres and campuses and the production of Strategic plan (2006 – 2011)
- 2004** : Development of B.Sc (Primary Education) and M. Sc(Education) degree Programs currently in use in the Department of Science and Mathematics Education.

CONFERENCES AND SEMINARS ATTENDED

Papers Presented (Last 5 years)

1. Toili W.W (2013) Towards Quality Standards in Science Education in Kenya: Setting the Research Agenda for the Case of Secondary School Biology Curriculum. Paper presented at the 3rd Education Symposium held at Kenya Institute of Curriculum Development on January 23-24, 2013.
2. Toili W.W (2009) Towards Quality Standards in Science Education in Kenya: Case of Biology Curriculum in Secondary Schools. Paper presented at the International conference on Education at Kenyatta held on 8-10 July, 2009.
3. Toili W.W. et al (2009) A Comparative Study of University Students' Perception of Biotechnology Applications: The Case of Kenya, Turkey, Lebanon, Slovakia and Jordan. Paper presented at ESERA Seminar held in Istanbul (August 30-4 Sept 2009).
4. Toili W.W. (2007) Perspectives on Theory of Instruction in Environmental Education: Reflections on Action Research Pedagogy. Paper presented at the 4th International Conference on Environmental Education, Ahmadabad, India (24 – 28th Nov. 2007).

COMMUNITY ENGAGEMENT/SOCIAL RESPONSIBILITY

- 2013** : Successfully completed the Christian Pilgrimage in the Holly Land (Israel), and Climbed to the top of the Masada off the Dead Sea.
- 2008-2010:** Conducted sensitization talks in various secondary schools on strategies to improve performance in National examinations. The schools included Khasoko, Kolanya, Keveye and Nyang'ori as well as all Principals in Lugari District held at Magadi Girils school.
- 2007-Date:** Member, Marriage Encounter, East Africa Group
- 2001-Date:** Vice-Chairman, University of Leeds Alumni Association in Kenya.
- 1994-1998** : Member, Parents-Teachers Association Executive Committee, Maseno National School.
- 1993-2000:** Interim Secretary - General of the University of Leeds Alumni Association in Kenya.
- 1995-2000:** Member, Administrative Committee Salvation Army Church (Kisumu Corps).
- 1986-1990:** Development of curriculum materials for the Undugu Society informal education programme for youths in Nairobi.
- 1987-1993:** Deputy Secretary - General, AFC Leopards Sports Club, Kenya.

MEMBERSHIPS OF PROFESSIONAL BODIES

- 2009:** Member, European Science Education Research Association
- 2008:** Member, National Association for Environmental Education (USA)
- 2008:** Member, National Environmental Education Foundation (USA)
- 2008:** Member, National Association of Biology Teachers (USA)

- 2007:** Member, Kenya Association of Natural History
1987-Date: Member, Commonwealth Association of Science, Technology and Mathematics Education (CASTME) - London.
1988-Date: Member, Association of Science for the Promotion of Children's Science in Africa" - Nairobi.
1991-2003: Member, National Primary Science Panel of Kenya Institute of Education.

RESEARCH INTERESTS

Environmental education: curriculum development and implementation; Traditional and modern strategies of environmental management; Person-environment relations; Education for Sustainable Development; Children's ideas in science and environmental concerns; Metacognitive abilities in Science learning; Quality Assurance and Standards in Science Education.

COURSES TAUGHT

Under graduate courses

- Biology Education
- Environmental Education
- Curriculum Development
- Guidance and counseling
- Instructional Media and Technology
- Primary science and mathematics curricula
- Teaching primary science and Mathematics
- Research project in primary science and mathematics curricula

Postgraduate Courses

- Methods and practices of Teaching Biology
- Nature and philosophy of science and science education
- History and Philosophy of Environmental Education
- Climate Change and Africa
- Advances in Environmental Risk Management
- Quality Assurance in Science Education
- Curriculum Development in science
- Learning in science
- Assessment in science learning
- Environmental Management
- Environmental Issues in Project Planning and Management
- Management of Learning in Institutions
- Education, Training and Public awareness for Disaster Management
- Environmental Policy and Education
- Writing Research proposals and reports
- Qualitative Research Methods

REFEREES

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