

# Curriculum Vitae of GEOFFREY VAUGHAN LAUTENBACH



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## 1. PERSONAL DETAILS

TITLE: Professor  
SURNAME: Lautenbach  
NAMES: Geoffrey Vaughan  
MARITAL STATUS: Married to Nardia Lautenbach (Randell), 10 January 2020.  
CHILDREN: Son, Kyle Lautenbach, born 30 July 1995  
Son, Michael Zeller, born 28 October 2002  
Daughter, Robyn Zeller, born 19 July 1999  
IDENTITY NUMBER: 6410215025086  
NATIONALITY: South African Citizen  
ADDRESS:  
Street address: 9 Cherry Drive, Robin Hills, 2194  
Postal address: PO Box 852, Strubens Valley, Roodepoort, 1735  
Work Postal Address: Faculty of Education, PO Box 524, Auckland Park, Johannesburg, 2006  
Work Address for Deliveries: Office B Ring 431, Auckland Park Campus, Corner University and Kingsway, Auckland Park, 2006.  
TELEPHONE: Cellular: 27 82 877 3787  
Work: (011) 559-3016  
EMAIL: [geoffl@uj.ac.za](mailto:geoffl@uj.ac.za) or [glautenbach@gmail.com](mailto:glautenbach@gmail.com)  
LinkedIn PROFILE: <https://www.linkedin.com/in/geoffrey-lautenbach-83262213/>  
Web Page: <http://www.uj.ac.za/contact/Pages/Prof-Geoffrey-Lautenbach.aspx>  
ORCID ID: <https://orcid.org/0000-0001-7099-095X>  
Google Scholar: <https://scholar.google.co.za/citations?user=KqbEWtcAAAAJ&hl=en>  
ResearchGate: <https://www.researchgate.net/profile/Geoffrey-Lautenbach>  
Academia.edu: <https://johannesburg.academia.edu/GeoffLautenbach>  
HOME LANGUAGE: English  
OTHER LANGUAGES: Afrikaans (Read, write, & speak fluently)  
CRIMINAL OFFENCES: None  
HEALTH: Excellent

## 2. EDUCATIONAL QUALIFICATIONS

Post Graduate, PhD: **DEd Computer-based Education** (University of Johannesburg). Field of study: *Lecturers changing epistemologies and pedagogies during engagement with information and communication technology in an Education Faculty* (University of Johannesburg, 2005)  
Post Graduate, MEd: **MEd Computer-based Education, cum laude** (RAU, 2000)  
Post Graduate, Honours: **BSc Honours Botany** (RAU, 1988)  
Diploma: **Post Graduate Higher Education Diploma** (RAU, 1987)  
Degree: **BSc Zoology and Botany** (RAU, 1986)  
Grade 12: Alberton High School, 1982. Passed with university exemption (one distinction)

## 3. PRESENT POSITION: ASSOCIATE PROFESSOR, LEARNING TECHNOLOGIES

<https://www.uj.ac.za/contact/Pages/Prof-Geoffrey-Lautenbach.aspx>

**Head of the Learning Technologies Unit** (2018 to present)

(Last promotion 1 July 2012)

### 3.1 Teaching in the Department of Science and Technology Education, Faculty of Education, University of Johannesburg

#### Teaching Master's Coursework and Dissertation modules: MEd ICT in Education

- **Residential MEd ICTs in education** - I have taught selected modules in this Masters programme since 2000.
- Responsible for the pilot online module EFA9X20, ICTs for Assessment (2016-2017).
- **Online MEd ICTs in Education** - Co-designer, developer and facilitator of the **First Online MEd at UJ (flagship program)**, ICTs in Education (2017 - Present). Currently the programme coordinator and presenter of 6 modules in this programme, including, ICTs in Education for Assessment A and B, Learning design A and B and Learning ecosystems A and B. I have been the coordinator of the MEd Online programme since 2019-Present.

#### Teaching in the BEd Honours Programme

- **2019 - Present:** Responsible for the design, development, and facilitation of the generic module, **Research Methodology in STEM Education**.
- **2019 – Present:** Co-ordinator of the Research Project module for ICT in Education.
- **2011-2018:** Responsible for coordinating and teaching Research Theories and Methods (RTM0017) to the entire BEd Honours cohort since 2011. Duties included the re-conceptualisation of the module to overcome general student fear of the research module which had developed a reputation of being difficult. I successfully improved the throughput rate and attitude towards research since 2011 as evidenced in the annual teaching and module evaluations. Throughput continued to rise in comparison to previous years. Student numbers 2011 = 320, 2012 = 270, 2013 = 170, 2014 = 166, 2015 = 240, 2016 = 215. In 2017, 55 students enrolled as the module was phased out to make way for the new Honours.
- **2013-2017:** Coordinator for the BEd Honours Orientation Program for first year Honours students.

#### Teaching in the BEd Undergraduate Programme

- **2008-2014:** *Professional Studies 3A (PFS3A10)*. This module was taught concurrently with PFS3A10 in 2008 due the restructuring of the timetable (240 students). Responsible for reconceptualising and preparing new learning material for this new module. Coordinated and taught both large English and Afrikaans classes from 2008-2010. From 2011-2014 I taught this module to similarly large groups in computer venues.
- **2015-2016:** *Teaching Studies 3B (TST203B)* – This module in the new BEd replaced Professional Studies 3A. The 2015 group totalled more than 500 students). I was the module coordinator as 2 lecturers are involved in the team teaching.
- **2017:** *Teaching Studies 3B (TST203B)* – This was the **first fully online undergraduate module at UJ**, co-presented with Dr J Batchelor.
- **2018- Present:** *Teaching Studies 3B (TST203B)* –Facilitator of the first fully online undergraduate module at UJ.
- **2015-2018:** ICT Support Role- Methodology and Practicum 3 (MOFPIA3 and MOFPIB3)
- **2018-Present:** ICT Support Role - Methodology and Practicum 4 (MOFPIY4)

### 3.2 Teaching in Research Methodology Programmes

*Design, development and teaching of the new BEd Honours Research Methodology Module for STEM Education (Implemented in 2019 - Present)*

*Short Learning Program, Supervision of Qualitative Research: 2017*  
Design, development, and facilitation of the first iteration for UJ staff in collaboration with the Postgraduate Centre.

*Masters and PhD Programme:* Qualitative Research Methodology and the Research Process, 2009- 2011. Narrative Inquiry 2011-2013. Literature review and the use of learning technologies 2014, 2016. Quantitative Research 2014. Using technology to collect, integrate and reference literature, 2016. Referencing techniques, 2016. Writing up theoretical perspectives in a proposal, 2016. Research design & Methods, 2016. Qualitative sampling, data collection & trustworthiness, 2016. Data analysis using Atlas.ti, 2016/2017. Research Ethics 2012-2017.

*BEd Honours 2011-2017:* Research Theories and Methods (Qualitative component).

*UNISA Research Directorate:* Using Technology for Research (2009-2011)

### 3.3 Creative Outputs

Video contributions - UCT Teaching With Technology course

A series of three videos on the topic of *Connectivism as a theory to underpin teaching with technology in the modern world, Exploring TPACK and its knowledge components, and TPACK for teaching with technology in the modern world*. The online course titled "**Teaching with Technology**" is presented by UCT and is hosted on the GetSmarter platform alongside online courses from prestigious universities such as Yale, Stanford, MIT, Oxford and a few others at <https://www.getsmarter.com/>

Interactive CD-ROM for Postgraduate Students - Basic introduction to *Qualitative Research Methodology (2010-2017)*:

CD-ROM covered introduction to qualitative research, philosophy and theory, the design of a qualitative research project, theoretical frameworks, the research proposal and academic writing, qualitative data collection and analysis, ethical issues in qualitative research, plagiarism, and the issue of trustworthiness. Each unit included an extensive list of essential readings (all referenced in APA style), and links to additional sources on the Internet or on the CD-ROM itself.

Web Site Design and Administration:

Web Site Coordinator for the Department of Science and Technology Education, (2010-Present).  
Web Site Designer and Administrator for the Faculty of Education, UJ (2005-2009).  
Web Site Designer and Administrator for the Faculty of Education and Nursing, RAU (2000 – 2004).  
Departmental information and marketing on digital display, APK B Ring 3 (2014-Present).

### 3.4 Postgraduate Supervision and Examination (Masters and PhD)

**Current Postgraduate Supervision:**

Supervisor for **29** MEd candidates (2021)  
Co-supervisor for **1** MEd candidates (2021)  
Supervisor for **3** PhD students (Osode, Khosa, Thikathali)  
Co-Supervisor for **2** PhD candidates (Baumgartner; Santilhana)  
*2021 Doctoral committee member* for 2 PhD candidates

**Completed Postgraduate Supervision:**

Completed PhD students as supervisor = **3** (Rhodes, Durandt, Osode)  
 Completed PhD students as co-supervisor = **3** (Greyling, Pretorius, Goto)  
 Completed MEd students as supervisor = **32**  
 Completed MEd students as co-supervisor = **12**

**Internal Examiner of Masters Dissertations**

University of Johannesburg, 2002-2008 (x12); 2011 (x2); 2012 (x1); 2013 (x3); 2014 (x2); 2016 (x1); 2016 (x3); 2021

**External Examiner of Masters Dissertations:**

University of Pretoria, 2004, 2008, 2010 (x2), 2011, 2012, 2019, 2021  
 Tshwane University of Technology, 2007, 2008, 2010, 2012 (x3)  
 University of the Witwatersrand, 2011  
 University of Cape Town, 2012, 2015, 2018, 2020 (x3)  
 University of Stellenbosch, 2015  
 Cape Peninsular University of Technology, 2015; 2016  
 UNISA, 2016, 2019 (x2), 2020  
 University of the Northwest, 2020, 2021

**Internal Examiner of PhD Theses**

University of Johannesburg, 2007

**External Examiner of PhD Theses:**

University of KwaZulu Natal, 2011  
 University of Wollongong, Australia, 2014, 2019  
 Australian Catholic University, Australia, 2014  
 Western Sydney University, Australia, 2018  
 UNISA, 2019  
 University of Cape Town, 2020  
 University of the Northwest, 2021

**3.4.1 Postgraduate Supervision (Completed PhD)**

Osode, J 2021	Learning management systems in higher education: The attitudes, expectations and experiences of academic staff at selected Nigerian higher education institutions ( <i>currently being assessed</i> ).
Goto, J 2020 (Co-supervisor):	Formative feedback for authentic learning activities in an online undergraduate module
Durandt, R 2019:	A strategy for the integration of mathematical modelling into the formal education of mathematics student teachers
Pretorius. E 2015 (Co-supervisor):	Learning communities for the professional development of science teachers
Rhodes, N 2012:	Transforming Accounting Education: Closing the gap between Technology, Education and Accounting in higher education institutions
Greyling, FC 2007 (Co-Supervisor):	The why and how of technology-assisted learning: Authentic professional development for higher education practitioners

### 3.4.2 Postgraduate Supervision (Completed MEd)

Human, ME 2021	Acceptance and use of technologies in physical sciences education during the covid-19 lockdown ( <i>cum laude</i> )
Kruger, C 2021	Digital competencies of grade 9 township teachers in the Sedibeng East District ( <i>cum laude</i> )
Van Niekerk, E 2021	Lecturers' perceptions and use of a learning management system (Blackboard) at a rural university in the Eastern Cape, South Africa ( <i>cum laude</i> )
Adeyemi, D 2021	Accounting teachers' perceived professional identity when integrating technologies into teaching (Submitted for examination)
Shiburi, MJ 2021	The role of School Based ICT Committee members in the integration of ICT in Full ICT Schools
Matemera, S 2021	Smart board use and pedagogic practices among educators: a case of a South African township school
Kheswa, WM 2021	Teachers' experiences of Gauteng Department of Education training and development programmes related to digital teaching
Naude, C 2021	Second year education students' views on a dialogic approach facilitated via Moodle discussion forums ( <i>cum laude</i> )
Kritzinger, E 2020	Cybersafety guidelines to prepare South African schools for the 4th industrial revolution ( <i>cum laude</i> )
Edgar, J 2020	Graduates' perceptions on the design of the online certification course for teaching English as a foreign language (TEFL) ( <i>cum laude</i> )
Dass, BJ 2020 (Co-supervisor with Dr J Fourie)	Teachers' perceptions of Information and Communication Technology in the teaching of learners with intellectual disabilities
Seedat, T 2020	Digital trends in mapping: perceptions of FET geography educators regarding the use of ICTs in the teaching of map work ( <i>cum laude</i> )
Mongake, MI 2019	Experiences of information and communications technology support role students using learning technologies during work-integrated learning
Wessels, C 2017 (Co-supervisor with Dr M Van Der Merwe):	Notions of well-being in Grade10 learners using mobile technologies in a private school classroom ( <i>cum laude</i> )
Zeelie, C 2017 (Co-supervisor with Dr J Batchelor)	Using connected tools and services to cultivate lifelong learning in pre-service teachers: An Actor Network Theory perspective
Simango, S 2017	Learner experiences of the use of mobile devices in the learning of technology
Rhikotso, M 2016 (Co-supervisor with Dr J Batchelor):	Pre-service teachers' emerging and changing mental models for using learning technologies in teaching and learning: Implications for teacher practice

Moodley, P 2016 (Co-supervisor with Prof P Du Plessis):	School managers' perceptions on the professional development of teachers in the use of Information and Communication Technology: Case studies of South African rural schools
Khumalo, P 2016 (Co-supervisor with Prof P Du Plessis):	Educators' expectations and experiences of continuous professional development in the use of Information and Communication Technology at Johannesburg secondary schools
Goto, J 2015 (Co-supervisor with Dr J Batchelor):	Massive Open Online Courses and the Pre-service teachers' understanding of learning design
Human, P 2014:	Innovative use of educational technology in the second language classroom: design principles for teaching and learning.
Coetzee, AM 2014:	Computer illiterate first year students' initial engagement with ICTs in teaching and learning.
Bester, SA 2014:	Transformative Learning: The use of learning technologies by Postgraduate Education Students.
Minty, R 2012:	Infusing Information and Communication Technologies (ICTs) into the teaching and learning of Mathematical Literacy ( <i>cum laude</i> ).
Tshimanika, K 2011 (Co-Supervisor with Prof A Amory):	A formative evaluation of authentic learning tasks integrating information and communications technology
Mabitsela, NL 2011:	High achievers in the Integrated Quality Management System (IQMS) and their perceptions of the role of Information and Communication Technologies (ICT) in their teaching
Ruscheinski, AM 2011:	The design, development and implementation of a computerised curriculum planning and assessment system to be used in a school for learners with special educational needs
Vos, SM 2010:	Finding a niche for teachers within the ICT ecology of learning ( <i>cum laude</i> )
Brink, R 2009:	Electronic assessment in an end-user computing course
Qhibi, S 2007:	Building confidence in rural physical science learners using information and communications technology
Vilakazi, BP 2007:	Knowledge and skills transfer from a postgraduate course in computer-based education to teaching practice
Nevondo, NL 2006:	Adult's engagement with computers in an adult basic education and training (ABET) programme
Rheeder, MM 2006: (Co-Supervisor with Mr R Diseko)	The design of interactivity for a web-based learning environment at a higher education institution
Bates, A 2006:	Personal teaching and learning philosophies and the design decisions of instructional designers

Phala, ST 2005:	Primary school teachers' perceptions of the influence of ICT on their educational practice
Kartal, S 2005:	Virtual dissections in the teaching of practical biology in South African high schools
Brown, PR 2005:	Transfer of skills learned in post-graduate studies to teaching practice ( <i>Cum laude</i> )
Setswe, JG 2005:	Grade 10 Learners' conceptions of computer utilisation in learning
Tlhoale, MJ 2005:	The engagement of educators with computers during the uptake of information and communication technology (ICT)
Dagada, R 2004:	Educator competence in integrating computers for teaching and learning within the framework of the GautengOnline project
Stoltenkamp, J 2003:	Support for e-learning at a Higher Education Institution

### 3.5 University Committees and Task Teams

University of Johannesburg:	Member, Steering Committee, Online Programmes (2019-Present) Member, Senior Student Experience Committee (2014-2017) Member, Faculty Strategic Committee (2014-Present) Member, Faculty Higher Degrees Committee (2015-2017, 2021) Chair, Faculty Research Ethics Committee (2011-2018) Member, Faculty Research Ethics Committee (2007-2011 and 2018-Present) Member, Faculty Research Committee (2007-2013) Member, Continuing Professional Teacher Development Committee (2005-2013) Member, Faculty Personnel Committee (2008-2009) Member, University Skills Development & Training Committee (2009-2013) University Task Team on Research Methodology & Supervision (2010)
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### 3.6 Innovations: Faculty of Education Research Ethics Committee (REC)

Research Ethics	REC member (2007-2011) and Chairman (2012-2018). Responsible for <b>NHREC accreditation and registration</b> (number REC-110613-036) in 2014. <b>This was only the second committee at UJ to be registered with the Department of Health and one of only 33 accredited RECs nationwide, at the time.</b>
Certificate of competence: Issued April 2013	<i>Research Ethics, Conducting Research Responsibly</i> : University of the Witwatersrand, Faculty of Health Sciences, Steve Biko Centre for Bioethics.



## 4. PUBLICATIONS

**Focusing on Learning Technologies in Higher Education** I have published accredited articles in both national and international journals in the past years. It was my aim to gain exposure as a leader in Higher Education issues related to Learning Technologies through individual articles and collaborative work with students. I have chosen to publish in two national high impact journals (*South African Journal of Education* and *Education as Change*), as well as in journals on the Department of Education list (DoE), to purposefully increase my footprint in the fields of Education and Learning Technologies both locally and internationally.

### 4.1 Published Peer Reviewed Articles

Goto, J., Batchelor, J. & Lautenbach, G. (2021). Pre-Service teachers' acceptance and use of formative feedback in an online undergraduate module. *The African Journal of Information Systems*, 13 (3).  
<https://digitalcommons.kennesaw.edu/ajis/vol13/iss3/1/>

Baumgartner, W., Spangenberg, E., & Lautenbach, G. (2021, accepted for publication in "Eurasia Journal of Mathematics, Science and Technology Education"). Developing Algebraic Knowledge: Foundation Programme ex-Mathematical Literacy Students' Perceptions (EJMSTE-09283-2020).

Lautenbach, G., & Randell, N. (2020). Through the COVID-19 looking glass: Coping skills for STEM educators in the time of a pandemic and beyond. *Journal of Baltic Science Education*, 19(6A), 1068-1077.  
<https://doi.org/10.33225/jbse/20.19.1068>

Available online at: JBSE website:

<http://www.scientiasocialis.lt/jbse/view/biblio/year/2020/volume/19/issue/6a>

OAJI: <http://oaji.net/journal-archive-stats.html?number=987&year=2020&issue=17283>

EBSCO: <http://search.ebscohost.com>; Academic Resource Index:

<http://paper.researchbib.com/view/issn/1648-3898/19/61>; and Copernicus Index:

<https://journals.indexcopernicus.com/search/journal/issue?issuelid=240793&journalid=19721>

Durandt, R. & Lautenbach, G. (2020). Strategic Support to Students' Competency Development in the Mathematical Modelling Process: A Qualitative Study. *Perspectives in Education*. 38(1). p211-223.

Available online at ERIC: <https://eric.ed.gov/?q=Lautenbach&id=EJ1260274>

Lautenbach, G. (2014). A theoretically driven teaching and research framework: learning technologies and educational practice. *Educational Studies* 40(4). pp.361-376. Routledge. ISSN 0305-5698. doi:

10.1080/03055698.2014.910445. Available Online at <http://dx.doi.org/10.1080/03055698.2014.910445> or

ERIC: <https://eric.ed.gov/?q=Lautenbach&id=EJ1033693>

Marchant, G. & Lautenbach, G.V. (2011). An interactive, multivariate projection model for the alignment of teacher demand and supply for schools in Gauteng Province, South Africa: a disaggregated approach.

*Education as Change* 15(S1). pp.S143-S156. ISSN: 1682-3206. Available Online at

<http://www.tandfonline.com/doi/full/10.1080/16823206.2011.643638#.VBLXbvmSzAk>

Brink, R. & Lautenbach, G.V. (2011). Electronic Assessment in Higher Education. *Educational Studies* 37(5) pp.503-512. Also available online (iFirst) at

<http://www.informaworld.com/smpp/content~db=all?content=10.1080/03055698.2010.539733> ISSN: 0305-5698.

Lautenbach, G.V. (2011). Learning to be researchers: an e-maturity survey of Gauteng schools. *South African Journal of Education* 31(1). pp.44-54. ISSN: 02560100.

Lautenbach, G.V. (2010). Expansive Learning Cycles: Lecturers using Educational Technologies for Teaching and Learning. *South African Journal of Higher Education*, 24(5). pp.699-715. ISSN: 10113487.

Lautenbach, G.V. (2008). Stories of engagement with e-learning: revisiting the taxonomy of learning. *International Journal of Information and Communications Technology Education* 4(3). pp.11-19. New York: IGI Publishing. ISSN: 1550-1876

Brown, R. & Lautenbach, G.V. (2005). The extended information ecology: a place where change can be embedded in the practice of post-graduate students. *Education as Change* 9(1). pp191-209. Faculty of Education, University of Johannesburg. ISSN: 1682-3206

Lautenbach, G.V. & Van Der Westhuizen, D. (2005). Hybridising methods towards narratives in an educational ICT inquiry. *Education as Change* 9(1). pp.46-73. Faculty of Education, University of Johannesburg. ISSN: 1682-3206

Dagada, R. & Lautenbach, G.V. (2004). Educator competence in integrating computers for teaching and learning within the framework of the GautengOnline project. *Education as Change*, Vol 8 (2). pp.105-133. Faculty of Education and Nursing, RAU. ISSN: 1682-3206

#### 4.2 Papers submitted to accredited Journals (In Process)

Seedat, T. & Lautenbach, G. (Submitted November 2019 - African Geological Review) - Digital trends in mapping: Perceptions of Geography educators in developing contexts regarding the use of ICTs in the teaching of map work.

Baumgartner, W, Spangenberg, E, Lautenbach, G. (Submitted October 2020 - SAJHE) Investigating relationships between motivation, learning strategies and academic performance in Foundation Programme algebra cohorts

#### 4.3 Peer Reviewed Papers in Conference Proceedings

**Conference proceedings in the field of Educational Technologies can be seen as an extremely important aspect of my professional development. This is due to the ever changing nature of technologies and the theories that underpin their use in teaching and learning. I focus mainly on the leading international conference in the field (EDMEDIA), as well as selected local conferences in order to generate accredited output, grow my personal professional network, and to keep up to date with all advances in the field.**

Osode, J.I. & Lautenbach, G. (2021). Attitudes and Behavioural Intention of Academic Staff regarding Learning Management Systems at selected Nigerian Universities. In T. Bastiaens (Ed.), *Proceedings of EdMedia + Innovate Learning* (pp. 59-68). United States: Association for the Advancement of Computing in Education (AACE). Available at: <https://www.learntechlib.org/primary/p/219639/>.

Schutte, P., Durandt, R. & Lautenbach, G. (2021). The Role of ICTs in Collaboration During the COVID-19 School Year. In T. Bastiaens (Ed.), *Proceedings of EdMedia + Innovate Learning* (pp. 280-284). United States: Association for the Advancement of Computing in Education (AACE). Retrieved July 21, 2021 from <https://www.learntechlib.org/primary/p/219669/>.

Lautenbach, G. & Randell, N. (2020). World, interrupted: Online learning in the time of a pandemic. In *Proceedings of EdMedia + Innovate Learning* (pp. 65-72). Online, The Netherlands: Association for the Advancement of Computing in Education (AACE). Available at: <https://www.learntechlib.org/p/217286/>

Lautenbach, G. & Randell, N. (2019). Who is actually driving? A trans-theoretical view of mathematics anxiety. In. *Proceedings of ISTE International Conference on Mathematics, Science and Technology Education*, 21 – 24 October 2019. (pp.192-199). University of South Africa, Unisa Press. ISBN. 978-1-77615-062-5

- Lautenbach, G. (2019). 21st century teacher skills: design principles for student engagement and success. In. *Proceedings of ISTE International Conference on Mathematics, Science and Technology Education*, 21 – 24 October 2019. (pp.314-320). University of South Africa, Unisa Press. ISBN. 978-1-77615-062-5
- Goto, J., Batchelor, J & Lautenbach, G. (2019). The influence of descriptive and social norms in the acceptance and use of online formative feedback in an undergraduate module. In. *Proceedings of ISTE International Conference on Mathematics, Science and Technology Education*, 21 – 24 October 2019. (pp.63-68). University of South Africa, Unisa Press. ISBN. 978-1-77615-062-5
- Durandt, R. & Lautenbach, G. (2018). Supporting students' competency development in the mathematical modelling process. In. *Proceedings of ISTE International Conference on Mathematics, Science and Technology Education*, 22 – 25 October 2018. (pp.36-43). University of South Africa, Unisa Press. ISBN. 978-1-77615-047-2
- Lautenbach, G. & Randell, N. (2018). Distraction or opportunity? Technologies for adolescent stress management. In. *Proceedings of ISTE International Conference on Mathematics, Science and Technology Education*, 22 – 25 October 2018. (pp.363-370). University of South Africa, Unisa Press. ISBN. 978-1-77615-047-2
- Goto, J., Batchelor, J. & Lautenbach, G. (2018). Pre-service teachers' acceptance and use of formative feedback in an online undergraduate module. In. *Proceedings of ISTE International Conference on Mathematics, Science and Technology Education*, 22 – 25 October 2018. (pp.332-339). University of South Africa, Unisa Press. ISBN. 978-1-77615-047-2
- Durandt, R. & Lautenbach G. (2018). Preparing mathematics student teachers for a modelling pedagogy. In. *Proceedings: 10<sup>th</sup> International conference on education and new learning technologies, EDULEARN18. 2 – 4 July 2018, Palma, Spain*. pp.7463-7469.
- Lautenbach, G. & Randell, N. (2017). Using mobile technologies for self-regulation in high school learners' stress management. In. *Proceedings: Towards Effective Teaching and Meaningful Learning in Mathematics, Science and Technology Education. 23 – 26 October 2017 UNISA/ISTE Conference on Mathematics, Science and Technology Education. Held at Mopani Camp, Kruger National Park, Limpopo, South Africa*. pp.94-99. Available at <http://uir.unisa.ac.za/handle/10500/23444>.
- Lautenbach, G. & Kennedy, D.M. (2017). Making more effective use of apps: designing meaningful professional learning networks. In. *Proceedings: Towards Effective Teaching and Meaningful Learning in Mathematics, Science and Technology Education. 23 – 26 October 2017 UNISA/ISTE Conference on Mathematics, Science and Technology Education. Held at Mopani Camp, Kruger National Park, Limpopo, South Africa*. pp.87-93. Available at <http://uir.unisa.ac.za/handle/10500/23430>.
- Durandt, R., Jacobs, G. & Lautenbach, G. (2017). Student teachers' authentic introduction to mathematical modelling: a design-based approach. In. *Proceedings: Towards Effective Teaching and Meaningful Learning in Mathematics, Science and Technology Education. 23 – 26 October 2017 UNISA/ISTE Conference on Mathematics, Science and Technology Education. Held at Mopani Camp, Kruger National Park, Limpopo, South Africa*. <http://uir.unisa.ac.za/handle/10500/23413>
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### 4.3 Book Chapters

Kennedy, D. M., & Lautenbach, G. (2021). A pragmatic approach to assessment in a time of crisis in South Africa. In C. McNaught & S. Gravett (Eds.), *Embedding social justice in teacher education and development in Africa*. Routledge.

Durandt, R & Lautenbach, G. (2020). Pre-service Teachers' Sense-making of Mathematical Modelling Through a Design-Based Research Strategy. In: Stillman G., Kaiser G., Lampen C. (eds) *Mathematical Modelling Education and Sense-making. International Perspectives on the Teaching and Learning of Mathematical Modelling*. pp431-441. Springer, Cham. DOI [https://doi.org/10.1007/978-3-030-37673-4\\_37](https://doi.org/10.1007/978-3-030-37673-4_37) Print ISBN 978-3-030-37672-7; Online ISBN 978-3-030-37673-4.

Lautenbach G.V. (2013). The deepening divide. In: Gravett, S.; Merseth, K. and De Beer, J. (Eds.). *Being a teacher: A book of cases*. Pearson Heinemann.

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#### **4.4 Published Non Accredited articles**

Lautenbach, G. (2013). Giving our garden the wings to fly. *Veld & Flora*, 99 (2), pp.92-95.

## **5 OTHER PRESENTATIONS AT LOCAL AND INTERNATIONAL CONFERENCES**

**Although these are not published in formal proceedings they are an essential part of my personal professional development and an essential part of my strategy to remain a recognized leader in the fields of Higher Education and Educational Technology.**

Durandt, R. & Lautenbach G. (2018). Preparing student teachers for realistic mathematics situations through a workable mathematical modelling approach. In. *Proceedings: RME6 Conference. 20-22 September 2018, Grand Cayman, Cayman Islands*.

Durandt, R., Jacobs, G.J. & Lautenbach, G. (2017). Tracking Student Teachers' Mathematical Modelling Motivation and Competencies Over Time: A Design Based Inquiry. The Mathematics Education Research Group of Australasia Incorporated conference (MERGA-40), 2-6 July 2017, Melbourne Australia. <https://www.merga.net.au/conferences.html>

Randell, N.; Lautenbach, G. & Van Der Merwe, M. (2015). Creating authentic, action learning spaces: reflection, mindfulness and resiliency as tools for teacher training and personal development. *ALARA 9th Action Learning Action Research and 13th Participatory Action Research World Congress 2015. 4-7 November 2015*.

Batchelor, J. & Lautenbach, G. (2014). MOOCING for CPTD: The teacher as lifelong learner. *ISTE International Conference on Mathematics, Science and Technology Education*, 19 – 23 October 2014.

Lautenbach, G. & Batchelor, J. (2014). Purposeful transformation of mental models of learning: 21st century skills for pre-service teachers. Poster Presentation. 4<sup>th</sup> Congress of the International Society for Cultural and Activity Research (ISCAR), 29 September-3 October 2014, Sydney, Australia.

Coetzee, A. & Lautenbach, G.V. (2012). First year students' initial engagement with ICTS in teaching and learning at a university. University of Johannesburg, Second Annual Faculty of Education Research Indaba, School of Tourism and Hospitality. 28 November 2012.

Bester, S.A. & Lautenbach G.V. (2012). Transformative learning: Empowering postgraduate students through educational technology use. University of Johannesburg, Second Annual Faculty of Education Research Indaba, School of Tourism and Hospitality. 28 November 2012.

Lautenbach, G.V., Amory, A. & Van Der Westhuizen, D. (2010). Reconsidering a faculty's research imperative: Use of a theoretically driven teaching and research framework to reconceptualize an undergraduate module. University of the Free State, Faculty of Education, Kenton 2010 Conference, Golden Gate. 28 Oct – 31 Oct 2010.

Amory, A., Van Der Westhuizen, D. & Lautenbach, G.V. (2010). Reconsidering a faculty's research imperative: Use of a theoretically driven teaching and research framework to support change. University of the Free State, Faculty of Education, Kenton 2010 Conference, Golden Gate. 28 Oct – 31 Oct 2010.

Van Der Westhuizen, D., Lautenbach, G.V. & Amory, A. (2010). Reconsidering a faculty's research imperative: Developing a theoretically driven framework for the teaching and research endeavour. University of the Free State, Faculty of Education, Kenton 2010 Conference, Golden Gate. 28 Oct – 31 Oct 2010.

Lautenbach, G.V. & Rhodes, N (2010). Design-based research and the reform of accounting education. University of Johannesburg, Faculty of Economic and Financial Sciences, Value 2010 Conference. 30 Aug – 1 Sept 2010.

Lautenbach, G.V. (2008). Practicing what you preach: Teaching and learning with educational technologies. University of Johannesburg, Centre for Technology Assisted Learning, Lustrum Celebration Edulink Symposium. 27 May 2008.

Lautenbach, G.V. (2008). Why I want to be a teacher. University of Johannesburg, Faculty of Education Teacher Development Conference. 17-20 March 2008.

Lautenbach, G.V. & Vilakazi B.P. (2007). Digital scholarship and teaching practice: what is the reality in our schools? Digital Scholarship Conference, University of Botswana. December 2007

Lautenbach, G.V. & Vilakazi B.P. (2007). Knowledge and skills transfer from a postgraduate course in computer-based education to teaching practice. University of Johannesburg, Faculty of Education Student Conference. September 2007.

Greyling, F.C., Van Der Westhuizen, D. & Lautenbach, G.V. (2007). The why and how of technology-assisted learning: authentic professional development for higher education practitioners. University of Johannesburg, Faculty of Education Student Conference. September 2007.

Lautenbach, G.V. & Van Der Westhuizen, D. (2003). Teaching computers with computers: Reflections on a self-paced computer skills course for training in-service educators. 29<sup>th</sup> Annual SASE (Southern African Society for Education) Conference, 25-28 September 2003, Rustenburg, South Africa.

Van Der Westhuizen, D. & Lautenbach, G.V. (2002). The meeting of two worlds: Hybrid approaches end the divide between e-learning and traditional classroom-based teaching practice. 4<sup>th</sup> Biennial Conference for Information Technology in Tertiary Education (CITTE), 25-27 September 2002, Durban, South Africa.

Van Der Westhuizen, D., Lautenbach, G.V. & Stoltenkamp, J. (2002). Help us! We want to 'e-teach': University lecturers support needs for facilitating e-learning. 4<sup>th</sup> Annual Conference on World Wide Web Applications, 4-6 September 2002, Stellenbosch, South Africa.

Lautenbach, G.V. & Van Der Westhuizen, D. (2002). Professional development of the online instructor: A programme for web-based higher education. 4<sup>th</sup> Annual Conference on World Wide Web Applications, 4-6 September 2002, Stellenbosch, South Africa.

Van Der Westhuizen, D. & Lautenbach, G.V. (2001). Training the Web Trainer using Web teaching. 3<sup>rd</sup> Annual Conference on World Wide Web Applications, 5-7 September 2001, RAU, Johannesburg, South Africa.



## 6 KEYNOTES AND INVITED TALKS

<p><b>Keynote:</b> 7<sup>th</sup> International Conference, Curriculum issues in science and technology education. Federal University of Technology, Minna, Nigeria. 3 October 2019.</p>	<p>Lautenbach, G. Laying the foundations for the innovations of tomorrow: Curriculum issues related to Science and Technology Education in the 4th Industrial revolution</p>
<p><b>Invited talk:</b> Siyaphumalela / SAIDE Intervention Assessment Series Seminar Address. Sunnyside Park Hotel, Parktown. 10 May 2018.</p>	<p>Lautenbach, G. Is there a place for qualitative research in impact evaluations?</p>
<p><b>Invited talk:</b> Centre for Academic Technologies, Inaugural Seminar Address. Council Chambers, Madibeng, UJ. 20 August 2014.</p>	<p>Lautenbach, G. Addressing issues of learning design in the 21st century: Authentic learning in practice</p>
<p><b>Invited talk:</b> Social Media in Higher Education Conference, Focus Rooms, Sunninghill, Johannesburg, 8-9 May 2014.</p>	<p>Lautenbach, G. and Batchelor, J. Managing your digital presence in a connected world.</p>
<p><b>Keynote:</b> South African Association for Science and Technology Education (SAASTE) National Conference, Nelspruit, Mpumalanga: 4 July 2013</p>	<p>Rethinking learning: Learning technologies in a networked society. Talk available from <a href="http://www.slideshare.net/glautenbach">http://www.slideshare.net/glautenbach</a></p>

## 7 CURRENT RESEARCH

<p>PLN project: 2018-2020</p>	<p>In collaboration with Prof David M Kennedy - Professional Learning Networks: Building capacity through diversity. In this study we articulate the design principles used to develop an undergraduate module leading to the formation of personal Learning networks online. We also look at the student artifacts using the adapted SOLO Taxonomy to investigate learning outcomes. This has led to one conference presentation : Lautenbach, G. &amp; Kennedy, D.M. (2017). Making more effective use of apps: designing meaningful professional learning networks. In. <i>Proceedings: Towards Effective Teaching and Meaningful Learning in Mathematics, Science and Technology Education. 23 – 26 October 2017 UNISA/ISTE Conference on Mathematics, Science and Technology Education. Held at Mopani Camp, Kruger National Park, Limpopo, South Africa.</i> pp.87-93. Available at <a href="http://uir.unisa.ac.za/handle/10500/23430">http://uir.unisa.ac.za/handle/10500/23430</a>.</p>
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EdTech and the affective domain in adolescents: 2019-2021	A series of conference papers have been written with research associate Nardia Randell. These have been presented and have led to publications on issues related to EdTech, stress, anxiety, and mindfulness. Latest output: Lautenbach, G., & Randell, N. (2020). Through the COVID-19 looking glass: Coping skills for STEM educators in the time of a pandemic and beyond. <i>Journal of Baltic Science Education</i> , 19(6A), 00-00. <a href="https://doi.org/10.33225/jbse/20.19.00">https://doi.org/10.33225/jbse/20.19.00</a>
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**8 FUNDED RESEARCH**

Application - research grant under the COVID-19 Africa rapid grant fund:	Co-researcher in a team led by Prof J Hardman from UCT. Towards a pedagogical model for teaching through technology in a pandemic: A cultural historical approach. Research areas addressed include Education and socio-cultural features impacting on learning science online in a pandemic.
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Application - NRF Call for research by rated researchers:	Co-researcher in a team led by Prof J Hardman from UCT. Towards a pedagogical model for teaching through rather than merely with technology: A cultural historical approach
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Managing and leading with Digital technologies: 2016-2017 (Co-researcher)	<p>This study focused on the story of the journey of 166 candidates acting as managers of District Teacher Development Centres (DTDCs) and Provincial Teacher Development Institutes (PDTIs), as well as eLearning specialist trainers who serve on the DBE's National Core ICT Training Team (NCITT). Participants from all nine Provincial Education Departments (PEDs) enrolled for a university accredited, NQF level 8 Short Learning Programme (SLP) titled Managing and Leading with Digital Technologies. This was done as part of their professional development while in turn strengthening provincial capacity in their respective districts. This particular SLP was purposefully designed to fully exploit the affordances of digital technologies in a blended learning space supported by the availability of tutors on a 1-10 ratio to address concerns of high attrition rates endemic to online learning. The programme was delivered over a period of eight months combining an initial four day face-to-face component in July 2016 followed by the online phase culminating in a 93.3% pass rate. The programme design is immersed in principles of Authentic Learning with a strong emphasis on:</p> <ul style="list-style-type: none"> <li>• Managing and leading change through self-management</li> <li>• Policy and institutional contexts with reference to teacher development and digital technologies</li> <li>• Driving optimal use of education resources and digital technologies</li> <li>• Innovative digital tools for collaboration and knowledge creation</li> <li>• Making data-driven decisions as educational intervention</li> </ul>
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HP National Education Technology Analytics Project (HP NETA): 2014-2015 (Co-researcher)	The SCITECHED Learning Technologies Unit at the University of Johannesburg supported an educational technology initiative to explore how a variety of ICTs supported and helped transform teaching and learning in the classroom. This ambitious data analytics effort assisted education leaders and policy makers by providing insights about the learning technologies in learning, society, and the economy. During this project the teaching staff and grade 10 learners of a teaching school linked to UJ were provided with 10 inch HP tablet devices and
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	<p>other hardware. Teachers received training in the use of tablet devices and associated ICT tools and services as well as exposure to various pedagogical strategies for their professional development. We used a control school that had access to similar technologies and displayed similar learner achievement in their Gr 12 NCS results to compare findings.</p>
<p>The UJ Metropolitan Academy Life Sciences Project: 2013-2015 (Co-researcher)</p>	<p>In this research we investigate learning in practice, through a simulated teaching experience where 4th year B.Ed. and PGCE students teach Life Sciences to Grade 10 learners from a top-performing school in Johannesburg. This particular school did not offer Life Sciences as part of the official curriculum offering and twelve learners from the school had to specially register Life Sciences as an additional (eighth) subject. The twelve participants committed to attend classes on Saturday mornings at the university and be taught by student teachers. This project blends elements of the Japanese Lesson Study approach, where students prepare and present lessons in groups of four, as well as elements of the establishment of teaching schools linked to universities, a trademark of the Finnish education system. This project differentiates itself from the normal school experience, in the sense that the pre-service student teachers become the actual teachers who take sole responsibility for the learning activities. It also increases their exposure to the practice of teaching and allows for them to concentrate on expanding their pedagogical content knowledge without having to worry about distracting issues, like discipline and extramural activities for example, that are more typical in normal school situations. Co-investigator with Dr J Batchelor and lead researcher Prof J De Beer.</p>
<p>GDE, Novice Teacher Project (2009-2010):</p>	<p>Co-investigator in a group of educational researchers who were awarded a grant by the GDE to inquire into the readiness of novice teachers as they enter the profession. Project leader - Prof B Smit.</p>
<p>GDE funded project, ICT maturity of Gauteng schools (2009-2010):</p>	<p>Co-investigator in a project to inquire into the use of ICTs in teaching and learning in Gauteng schools using the BECTA framework as a heuristic. This included both a quantitative survey and a qualitative, exploratory phase. Educational ICT honours students were used in the survey data collection phase. Project leader - Prof A Amory.</p>
<p>NRF funded focus area research (2004-2008), R380 000 project “Learning and Information Ecologies in Educational ICT”:</p>	<p>Co-investigator in a group of educational researchers who were awarded a four-year NRF grant to inquire into teacher knowledge of ICT. Project leader - Prof Duan Van Der Westhuizen. This project included masters’, doctoral and postdoctoral students. The purpose of the inquiry was to see how teachers in Masters and Honours programmes in ICT channel their knowledge to schools and practice. Two Masters students in this project have completed their research in this project under my supervision. One journal article was published and 3 papers presented at national and international conferences.</p>

## 9. SPECIAL AWARDS AND ACHIEVEMENTS (Personal and student-related)

<p>Best Student Presentation Award: Student E Pretorius (PhD Co-Supervisor)</p>	<p>ISTE conference, October 2014, Mopani Camp, Kruger National Park. Pretorius, E., Lautenbach G. &amp; De Beer, J. (2014). <i>Professional development of science teachers: The A-Team hybrid ecology of learning practice.</i></p>
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Students as invited speakers at International conference: (2-4 July 2013)	Two 3 <sup>rd</sup> year BEd students sponsored by Microsoft to attend the Partners in Learning, ICT in the Classroom Conference, University of the Free State, Bloemfontein to present their innovative ideas to an international audience. Invitation based on classwork uploaded to a teaching repository in our undergraduate module. One student was presented with a Windows 8, Dell laptop computer sponsored by Intel.
Best Paper Award (2007): G Lautenbach	IADIS Multi Conference on Computer Science and Information Systems – eLearning, Lisbon, Portugal July 2007 and an invitation to publish an extended version in the International Journal of Information and Communication Technology Education.
Chancellors Medal: (Best MEd student 2006), PR Brown	Presented to student PR Brown during the May 2006 Graduation ceremonies for the best MEd student 2006.

## 10. NATIONAL & INTERNATIONAL COLLABORATION

<i>Executive Committee Member</i>	World Conference on Educational Multimedia, Hypermedia and Telecommunications (EDMEDIA): Association for the Advancement of Computing in Education (AACE). 2014 – 2016.
<i>Peer review committee member and programme committee member:</i>	World Conference on Educational Multimedia, Hypermedia and Telecommunications (EDMEDIA): Association for the Advancement of Computing in Education (AACE). 2004 – 2016.
<i>Program committee member:</i>	International Conference on Computer Supported Education (CSEDU 2018, 2019)
<i>Program committee member:</i>	IADIS Multi Conference on Computer Science and Information Systems. International Association for the Advancement of the Information Society (IADIS). 2007 - Present
<i>Program committee member:</i>	The International Society for Cultural and Activity Research (ISCAR), 2010 - Present
Reviewer (Journals):	<ul style="list-style-type: none"> <li>• <i>South African Journal of Childhood Education</i></li> <li>• <i>Educational Studies</i></li> <li>• <i>Education as Change</i></li> <li>• <i>International Journal for Information and Communications Technology Education</i></li> <li>• <i>Australasian Journal of Educational Technology</i></li> <li>• <i>South African Journal of Education</i></li> <li>• <i>Africa Education Review</i></li> <li>• <i>Perspectives in Education</i></li> <li>• <i>Mind, Culture and Activity</i></li> </ul>
<i>Coordinator of the Advanced Certificate in Education for GautengOnline teachers:</i>	2004/2005. This formed part of a R600 000 project with GautengOnline and the ETDP Seta

Coordinator of the Advanced Certificate in Education for GDE teachers:	2008-2011. GDE funded teachers. The first intake from July 2008 qualified for the certificate in July 2010
Evaluator for Distance Education Programmes:	Higher Education Quality Committee (HEQC), August 2005
Invited panel member:	Internal Programme Review, Department of Industrial Psychology, UJ, 2006
External Examiner and moderator, undergraduate and postgraduate:	Tswane University of Technology (TUT) University of Pretoria (UP) University of Stellenbosch (US) University of the Free State North West University (NWU) University of Cape Town (UCT) University of KwaZulu Natal (UKZN) Cape Peninsula University of Technology (CPUT) UNISA Australian Catholic University, Canberra. University of Wollongong, New South Wales, Australia. Western Sydney University

## 11. MEMBERSHIP OF PROFESSIONAL BODIES

International:	Member of the <i>Association for the Advancement of Computing in Education</i> (AAACE) Member of the <i>International Society for Cultural and Activity Research</i> (ISCAR)
National:	Member of the <i>South African Academy for Arts and Sciences</i> , M.Acad (SA). 2014 - Present Member of the <i>Education Commission</i> of the South African Academy for Arts and Sciences, M.Acad (SA). 2015-2019 Member of the <i>South African Council for Educators</i> (SACE) Member of the <i>South African Association for Research and Development in Higher Education</i> (SAARDHE)

## 12. CAREER SUMMARY

Previous appointments:	<i>Senior Lecturer</i> , University of Johannesburg (November 2005 – June 2012)  <i>Lecturer</i> , Rand Afrikaans University (January 2000 – November 2005)  <i>Head of Science</i> , Eden College, Lyndhurst (1998 – 1999). Teaching Physical Science grade 10-12 and Biology grade 11-12  <i>Head of Biology</i> , Germiston High School (1995 – 1997). Teaching General Science grade 8-9; Physical Science and Biology grade 10-12  <i>Teacher</i> , Bracken High School (1992 –1994). Teaching General Science grade 8-9 and Biology grade 8-11.
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*Teacher, (Acting Head of Department) Chinese Kuo Ting School, Bramley (1990 –1991). Teaching General Science grade 8-9, Biology grade 8-12, Physical Education grade 6-12, and Mathematics grade 6*

### 13. GENERAL

Other interests: **SANParks Honorary Ranger**, West Rand Region (2012-Present) – Volunteers in support of SANParks.  
Applicant 2012  
Appointed as SANParks Honorary Ranger in 2013  
*Member of the SANParks HR National Training Committee, NTC (2015 – 2019).*  
*Appointed Vice Chair of SANParks HR National Skills Development Committee – NSDC (2019 – May 2020)*  
*Appointed Acting Chair of SANParks HR National Skills Development Committee – NSDC (May 2020-Feb 2021)*  
*Appointed Chair of SANParks HR National Skills Development Committee – NSDC (April 2021-Present)*  
*Nature Site Guide – Qualified in 2018 for Bushveld and Savannah biomes with a special endorsement for the Kalahari Gemsbok National Park. Cathsseta Certificate 613/C/125083*  
*Registered South African Tourist Guide – Reg. No GP6127*

**Botanical Society of South Africa**, Bankenveld Branch  
Committee Member 2008  
Vice Chairman 2009-2011  
Chairman 2011- 2014)

**Scuba Diving** (recreational). Accredited Rescue diver (PADI)

**Photography.**

**Wildlife enthusiast and avid birdwatcher.**

**Classical guitar** (completed grade 3 level) and music enthusiast in general.