

## PROGRAMME AND ABSTRACTS

WAFRICA



## THEME:

Reimagining educational assessment in the age of multiple dimensions of learning in a global society.

## 19-23 AUGUST 2024

Century City Conference Centre and Hotels, Cape Town, South Africa.





## **40th AEAA Annual** Conference

## **Sponsors**























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## **ABBREVIATIONS AND ACRONYMS**

ACLER Australian Council for Educational Research AU African Union BEC Botswana Examinations Council CUT Central University of Technology DBE Department of Basic Education DHET Department of Higher Education and Training EAES Educational Assessment and Examinations Services ECESWA Examinations Council of Eswatini ECOL Examinations Council of Lesotho AEAA Association for Educational Assessment in Africa ECOL Examinations Council of Lesotho ECZ Examinations Council of Zambia IEB Independent Examinations Board IIE Independent Institute of Education JAMB Joint Admission and Matriculation Board KNEC Kenya National Examinations Board MOEAC Ministry of Education, Arts and Culture NABTEB National Business and Technical Examinations Board, Nigeria NACCA National Council for Curriculum and Assessment NECO National Examinations Council of Tanzania NQF National Qualifications Framework PDE Provincial Department of Education QCTO Quality Council for Trades and Occupations UCT University of Cape Town UFS University of The Free State UJ University of Soah Trades and Technical Examinations Board UNESCO Institute of Statistics UKZN University of KwaZulu-Natal UNEB Uganda National Examinations Board UNISCO United Nations Educations Board UNISCO United Nations Educations Board UNICEF United Nations Educations, Scientific and Cultural Organization UNICEF United Nations Educational, Scientific and Cultural Organization	ACED	Avertualian Coversil for Educational Designation
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	UNICEF	United Nations Children's Fund
-	UNISA	University of South Africa
	UNMEB	



UP	University of Pretoria
SACAI	South African Comprehensive Assessment Institute
SAQA	South African Qualifications Authority
SSNEC	South Sudan National Examinations Council
SU	Stellenbosch University
TEVETA	Technical Education, Vocational and Entrepreneurship Training Authority
WAEC	West Africa Examinations Council
WCED	Western cape Education Department
ZIMSEC	Zimbabwe School Examinations Council
NUL	National University of Lesotho
UNIZULU	University of Zululand





# WELCOME MESSAGE BY CHAIR OF UMALUSI COUNCIL:

## **Professor Yunus Ballim**

On behalf of Umalusi Council, I would like to take this opportunity to warmly welcome you to the 40th Association for Educational Assessment in Africa (AEAA) Annual Conference hosted by Umalusi. It is indeed my great pleasure to extend a warm welcome to colleagues from all parts of the African continent. I also extend a special word of welcome to colleagues and delegates who join us from other parts of the world. You are now in the region of the world referred to as the Cradle of Humankind. So, to all of you, I say "Welcome Home!".

This conference, under the theme "Reimagining educational assessment in the age of multiple dimensions of learning in a global society" takes place during two key moments as far as South Africa's education system is concerned. Firstly, Umalusi, the host of this 40th Conference, has just begun its journey of the third decade of its education guardianship in South Africa after it celebrated 20 years of its existence in 2022. Secondly, on 30 June 2023 His Excellency President Ramaphosa appointed to his Cabinet the new Ministers of Basic Education and Higher Education and Training to serve in the 7th Administration.

The Basic Education Minister has announced that the first three of the five key priorities for the 7th Administration focus on making early childhood education accessible to all, improving literacy and numeracy, and improving access to quality inclusive education. This conference is therefore an invaluable opportunity for Umalusi to reimagine its quality assurance framework so as to focus on the foundational levels of the education system.

I am sure that the papers to be delivered at this conference over the next four days will generate discussion, debate and interest in new areas of research to help us develop creative ways of pursuing quality education for all learners in the general and further education and training system in countries across our continent.

I wish to thank all the organisations and entities that have contributed in their varied ways to the success of this conference. I would particularly like to express my gratitude to the Local Organising Committee who started preparing for this conference early in 2023 with seriousness, commitment and rigour.

I wish you successful academic discussions and debates, and I keenly look forward to the thoughts and conclusions that will emerge from the conference.

Thank you.





# FOREWORD BY AEAA PRESIDENT: Dr David Njengere

The 40th Association for Educational Assessment in Africa (AEAA) Conference represents a significant opportunity for education assessment experts to engage in meaningful discourse about education across the continent. This conference comes at a crucial time when Africa needs a paradigm shift from traditional assessments to approaches that address non-traditional learning experiences and incorporate technological advancements for more effective assessment.

The 39th AEAA Conference held in Nairobi, Kenya, highlighted the necessity for assessments that foster critical thinking, creativity, and problem-solving skills, preparing learners for the demands of the 21st century. It was emphasised that assessment should not merely compare learners but should assess the skills and competencies demonstrated in various circumstances. As we explore the theme of this 40th AEAA Conference, "Reimaging Educational Assessment in the Age of Multiple Dimensions of Learning in a Global Society," let us focus on contextualising global issues within the African experience and developing assessment practices that showcase our strengths while ensuring globally competitive qualifications.

As AEAA members integrate digital assessment into both school and post-school assessments, the conference sub-themes have been designed to address key dimensions of educational assessments. Topics will cover the quality of assessment, the use of—particularly through digital assessment—and issues related to research and policy. This is an opportune moment to critically reflect on our challenges, explore researched solutions, and improve the credibility of assessment and certification. Our goal is to enhance the quality, efficiency, and sustainability of assessment practices.

I wish you fruitful conference engagements and a memorable experience in Cape Town, South Africa.





# WELCOME MESSAGE BY CHIEF EXECUTIVE OFFICER OF UMALUSI:

Dr Mafu S. Rakometsi

On behalf of the Council for Quality Assurance in General and Further Education and Training, commonly known as Umalusi, I am delighted to welcome you to the 40th Association for Educational Assessment in Africa (AEAA) Annual Conference hosted here in South Africa.

It is with great pleasure that I extend a special welcome to participants from across the African continent, as well as from Europe, India, the United Kingdom, the United States of America, and other regions around the world. This year's conference, framed by the theme "Reimagining Educational Assessment in the Age of Multiple Dimensions of Learning in a Global Society," has attracted more than 300 delegates from various educational institutions and organisations worldwide.

I extend my gratitude to all keynote speakers, lead speakers, panellists, workshop and paper presenters for their invaluable contributions to the success of this conference. Over the next four days, approximately 130 papers will be presented on different aspects of the theme, including five keynote addresses. Your commitment and co-operation in responding positively to our call for papers are appreciated, and I hope that the discussions and presentations will spark new research interests and deepen our collective dialogue.

Special recognition is due to the conference sponsors, partners, and exhibitors, whose names are listed in this booklet. Their financial support has been crucial in making this conference a reality. Additionally, I want to express my sincere thanks to the Umalusi Council, under the leadership of Professor Yunus Ballim, for approving the organisation of this conference.

I also want to extend my heartfelt thanks to the Local Organising Committee, chaired by Dr Matsie Agnes Mohale, for their tireless efforts in creating a platform for this international engagement. Your hard work has been instrumental in the success of this event.

Finally, I deeply appreciate the support of all internal and external stakeholders and wish you all successful conference deliberations.



## ABOUT THE ASSOCIATION FOR EDUCATIONAL ASSESSMENT IN AFRICA

## VISION STATEMENT

To harmonise educational assessments across the African continent.

## MISSION STATEMENT

The Association for Educational Assessment in Africa (AEAA) is a non-profit organisation dedicated to promoting co-operation among examining and assessment bodies in Africa.

## **BACKGROUND**

The AEAA was established following a sub-regional conference held in 1982 by Heads of Institutions responsible for educational assessment in Eastern and Southern Africa. The initial vision was to harmonise educational assessment within Africa. Kenya, Uganda, Tanzania, Botswana, Lesotho, and Malawi were the primary founding members of the Association. Over time, other African countries joined, and in 1992, at a meeting in Arusha, Tanzania, the Association evolved into the AEAA, expanding its membership across the continent.

The AEAA is primarily comprised of private and non-profit government organisations, including educational assessment boards throughout Africa. One of its main goals is to share best practices in educational assessment. The primary forum for this activity is the annual conference, which is convened on a rotational basis by member institutions. This conference serves as a platform for benchmarking among examination bodies and scholars from different member states, facilitating the exchange of knowledge, experience, and best practices.

The AEAA has continental coverage, with 21 active primary members (examination bodies) and several individual members from both public and private institutions, primarily from Sub-Sahara Africa. The primary members are drawn from the following countries:

1	Botswana	8	Malawi	15	Sierra Leone
2	Cameroon	9	Mozambique	16	South Africa
3	Ethiopia	10	Namibia	17	South Sudan
4	Ghana	11	Nigeria	18	Swaziland
5	Kenya	12	Tanzania	19	Uganda
6	Lesotho	13	The Gambia	20	Zambia
7	Liberia	14	Rwanda	21	Zimbabwe

The AEAA is an affiliate member of the International Association for Educational Assessment (IAEA), which includes assessment institutions from around the world.



## **OBJECTIVES OF THE ASSOCIATION**

The AEAA is committed to facilitating best practices in educational assessment among its member institutions by sharing experiences and sponsoring staff training on emerging trends. Its initiatives are guided by the following objectives:

- Promote co-operation among examining and assessment bodies across Africa;
- Encourage relevant examining and assessment activities among members;
- Sponsor international participation in the field of educational testing and examination;
- Commission and co-ordinate research projects;
- Improve assessment, testing, and examination processes within individual member countries;
- Address and share experience on various evaluation and assessment issues; and Undertake activities that are incidental or conducive to achieving the Association's objectives as outlined in its Charter.

### **AEAA MEMBERSHIP**

#### Membership in the AEAA is categorised into three types:

- Primary Membership Open to non-profit regional and national examining boards;
- Affiliate Membership Available to commercial firms and profit-making organisations;
   and
- Individual Membership Available to organisations or individuals with expertise or a vested interest in educational assessment and testing.

## ADMINISTRATIVE STRUCTURE OF THE AEAA

#### The administrative structure of the AEAA comprises the following organs:

- General Assembly
- Executive Committee (EXCO)
- Secretariat
- Regional Representative

The General Assembly comprises all the members of the Association and convenes at least once annually. The EXCO is the apex decision-making body of the Association. It is an eight-member governing body led by an elected President and Vice President. The Chief Executive Officer (CEO) of the Kenya National Examinations Council (KNEC) has been serving as the AEAA Vice President since July 2021. Other key positions within the EXCO include the Treasurer, the Executive Secretary, and the Regional Representatives.



## THE MEMBERSHIP OF THE AEAA IS ORGANISED INTO FIVE SUB-REGIONS:

- · Western African
- Eastern Africa
- Central Africa
- · Southern Africa

## **AFFILIATION**

The Association for Educational Assessment in Africa (AEAA) is affiliated with the International Association for Educational Assessment (IAEA).

## SECRETARIAT ADDRESS

All correspondences should be directed to the Executive Secretary, AEAA:

Examinations Council of Zambia P.O. Box 50432 Lusaka, Zambia Email: info@exams-council.org.zm

## **AEAA EXECUTIVE COMMITTEE MEMBERS**

Name	Designation	Organisation	Country
Dr David Njengere	President	Kenya National Examinations Council (KNEC)	Kenya
Dr Mafu Rakometsi	Deputy President	Umalusi	South Africa
Dr Michael Chilala	Executive Secretary	Examinations Council of Zambia	Zambia
Mr Pa-Samba Baldeh	Treasurer	The Gambia National Examinations Council	The Gambia
Prof. James Tambi Agbor Bechem	Central Africa Representative	University of Buea	Cameroon
Mr Dan Odongo	East Africa Representative	Uganda National Examinations Board (UNEB)	Uganda
Prof. Ifeoma Isiugo-Abanihe	West Africa Representative	National Business and Technical Examinations Board (NABTEB)	Nigeria
Dr Moreetsi Thobega	Southern Africa Representative	Botswana Examinations Council (BEC)	Botswana



The United Nations Childrens Fund (UNICEF) works across more than 190 countries and territories to reach the world's most disadvantaged children and has been working in South Africa since the dawn of democracy thirty years ago.

We are committed to realizing the rights of all children, to help them build a strong foundation and have the best chance of fulfilling their potential. We believe that ensuring that a child is happy and healthy begins before birth: from supporting their mother to have access to good health care to reaching adulthood as a healthy, empowered, and informed young person of the next generation.

This journey relies on every child having access to quality education, health care, good nutrition, and growing up in a safe environment free from violence.

Since 1994, South Africa has made great strides in realising the right to education, rapidly building an efficient, accessible and quality education system for children and adolescents. This notable progress has been recorded across the three components of basic education in early childhood development, primary and secondary education.

Yet, despite these achievements, the prospects and opportunities afforded to children in South Africa are still largely contingent on which side of the inequality divide they are born.

With COVID 19 worsenin learning poverty, UNICEF and other partners introduced a RAPID Framework for Learning Recovery and Acceleration, which outlines five short-term, key policy actions:

Reach every child and keep them at school,
Assess Learning Levels Regularly,
Prioritising Teaching the Fundamentals,
Increase Efficiency of Instruction, including through catch-up learning
Develop Psychosocial Health and Wellbeing.

With these priorities underlining much of our work, UNICEF supports the **40th ASSOCIATION FOR EDUCATIONAL ASSESSMENTS IN AFRICA (AEAA) ANNUAL CONFERENCE.** 

With these collective efforts, UNICEF remains committed to leave no child behind as we partner to End Learning Poverty For All in Africa while working towards a world where children can "**Read, can Write, can Count: Foundation4Life**"



## CHRONOLOGICAL LIST OF PAST AEAA CONFERENCES

The Association for Educational Assessment in Africa (AEAA) was established in 1982. AEAA Conferences are held annually and are hosted on a rotational basis by member institutions. A chronological list of these conferences is provided in the following table.

#	Year	Country	Theme		
1	1983	Tanzania	Continuous Assessment: A case of Aptitude Testing and		
		Technical Examination.			
2	1984				
3	1985	Malawi			
4	1986	Uganda	Continuous Assessment and Selection		
5	1987	Kenya	Standard setting in public examinations		
6	1988	Kenya	Assessment of skills for self-reliance		
7	1989	Malawi	Achievement of the examinations in certification and placement processing of examination results (from marking to release)		
8	1990	Zambia	Processing of examination results: From marking to release		
9	1991	Uganda	Innovations in assessment		
10	1992	Tanzania	Assessment of practical and professional skills in examinations		
11	1993	Kenya	Challenges of educations assessment in Africa		
12	1994	Uganda			
13	1995	South Africa	Assessment and opportunity – the ethos, practice and impact of assessment for reconstruction and development in education		
14	1996	Zimbabwe	Guaranteeing quality in assessment, challenges, agonies and benefits of indigenization of curriculum		
15	1997	Nigeria	Quality assurance in education assessment		
16	1998	Malawi	Education assessment in African countries – challenges and prospects		
17	1999	Zambia	Enhancing relevance and appropriateness of educational assessment		
18	2000	Cameroon	Capacity building in the conduct of public examinations		
19	2001	Kenya	School based assessment		
20	2002	Tanzania	The management and administration of public examinations system in Africa - experiences in examination irregularities		
21	2003	South Africa	Assessment and certification in changing educational, economic and social context		
22	2004	Botswana	The role of assessment in the implementation of national education policy		



23	2005	Uganda	Enhancing the quality of education through assessment	
24	2006	Swaziland	Curriculum change and challenges in educational assessment	
25	2007	Rwanda	Assessment and evaluation for teaching and learning in the 21st century	
26	2008	Ghana	Contemporary trends and tools in educational assessment	
27	2009	Cameroon	Educational assessment and quality assurance in a multicultural society	
28	2010	Nigeria	The challenges of quality assessment in a changing global economy	
29	2011	Kenya	Best practices in educational assessment for regional integration	
30	2012	Botswana	Enhancing assessment practices	
31	2013	Tanzania	Enhancing assessment practice for quality education	
32	2014	Zambia Educational assessment in a knowledge society		
33	2015	Ghana	Quality assurance in educational assessment in an era of rapid change	
34	2016	Zimbabwe	Promoting holistic development through innovative educational assessment initiatives	
35	2017	Uganda	Enhancing efficiency and effectiveness in educational assessment in an era of rapid change	
36	2018	Lesotho	Reforming educational assessment: a renewed agenda	
	2019	Nigeria	Innovations in educational Assessment	
	2020		Suspended due to COVID-19 pandemic	
37	2021		Suspended due to COVID-19 pandemic	
38	2022	Zambia	Educational Assessment for developing 21st Century Skills	
39	2023	Kenya	Educational assessment for nurturing every learner's potential	
40	2024	South Africa	Reimagining educational assessment in the age of multiple dimensions of learning in a global society	



## OLDMUTUAL

#### Prioritising and Funding Reading Development: A Vision for South Africa's Future

At Old Mutual, we believe that investing in early grade reading and numeracy is crucial for transformative change in South Africa's education landscape. This belief has driven us to strategically collaborate with the Department of Basic Education (DBE), focusing on early grade reading, numeracy, and mother-tongue education.

The benefits of prioritising and funding this area are numerous and have the potential to create significant positive impacts for individuals and society, including:

#### **Building Strong Foundations**

Early grade reading and numeracy lay the groundwork for future academic success. The Progress in International Reading Literacy Study (PIRLS, 2021) reveals a stark reality: only 19% of South African Grade 4 children can read for meaning in any language. Addressing this early on is essential for ensuring long-term academic achievement.

### **Fostering Confidence**

Empowering young learners with strong reading and numeracy skills instills confidence in their academic abilities, fostering a positive attitude towards learning. According to the World Bank's early reading study (2018), confident readers are more likely to excel in their studies and less likely to drop out of school.

### **Reducing Dropout Rates**

Strong foundational skills in reading and numeracy keep learners engaged and motivated throughout their academic journey. The South African Department of Basic Education estimates a dropout rate of around 40% from Grades 1 to 12. Improving these foundational skills can play a critical role in reversing this trend.

#### **Advantages of Mother-Tongue Education**

#### Teaching reading and numeracy in learners' mother tongues offers several key advantages:

- Preserving Cultural Identity: Teaching and learning in one's mother tongue respects and preserves South Africa's rich cultural diversity. It helps learners connect with their roots and fosters a sense of pride in their heritage.
- Enhanced Cognitive Development: The Journal of Educational Psychology (2014) highlights that students who receive early education in their mother tongue perform better in cognitive tasks and demonstrate improved critical thinking skills.
- Smooth Transition to Other Languages: Proficiency in the mother tongue facilitates the transition to learning other languages, including English, which is often necessary for academic and professional success. Research shows that individuals with a strong foundation in their home language are more likely to learn additional languages successfully. This multilingual proficiency not only benefits individuals academically but also enhances their future employability and global citizenship.
- Enhanced Employability: In today's competitive job market, literacy and numeracy skills are essential for securing employment.
- Contributing to Economic Growth: A well-educated workforce is crucial for economic growth and development.
   Investing in early grade reading and numeracy helps create a more productive and skilled workforce, driving economic progress.

Old Mutual believes that the key to a brighter future lies in empowering our nation's children and youth through better education. Assisting the communities in which we operate to develop and prosper is one of our top priorities. We are deeply committed to building a stronger economy and a better society, ensuring that everyone has the opportunity to thrive.

We urge all corporations to join us in prioritizing and funding early grade reading and numeracy development. It is a visionary investment that will profoundly impact the lives of our children and the future of South Africa.

#### For more information, contact:

Lungi Gungubele: Education Manager at Old Mutual

Email address: lgungubele@oldmutual.com





## **ABOUT UMALUSI**

**Vision:** To be a trusted authority in promoting high standards in general and further education and training.

**Mission:** To serve as the quality council responsible for ensuring the excellence of education.

Umalusi is South Africa's Council for Quality Assurance in General and Further Education and Training (GFET), which includes schools, colleges, and adult education providers. Under the National Qualifications Framework (NQF) Act of 2008, as amended, Umalusi functions as a standard-setting Quality Council (QC). It is responsible for developing and managing the General and Further Education and Training Qualifications Sub-framework (GENFETQSF) at Levels 1-4 of the NQF.

### In fulfilling its mandate, Umalusi employs a standard-setting framework that includes:

- Ensuring the development of qualifications and associated curricula for the sector;
- Accrediting private providers (such as independent schools, private further education and training colleges, and private adult education and training colleges) to offer qualifications on the sub-framework;
- Accrediting private assessment bodies to evaluate qualifications;
- · Quality assuring assessments and issuing certificates for learner achievements; and
- Commissioning or conducting research to inform the advice provided to the relevant Minister of Education.

## As a QC, Umalusi is responsible for the quality assurance of examinations associated with the following qualifications:

- National Senior Certificate (NSC); offered in schools;
- (b) Senior Certificate, as amended (SC(a)); offered at adult centres;
- (c) National Certificate (Vocational) NC(V): Levels 2-4; offered in Technical and Vocational Education and Training (TVET) Colleges;
- (d) NATED Report 190/191 (N2 N3); offered in Technical and Vocational Education and Training (TVET) Colleges. These programmes are entering a phase-out period starting January 2024 and are expected to be completely phased out of the Umalusi sub-framework within the next three years; and
- (e) General Education and Training Certificate: Adult Basic Education and Training (GETC: ABET); offered at Adult Education and Training centres.



Umalusi does not set or administer the examinations for the qualifications listed above. Instead, this responsibility lies with public assessment bodies, such as the Department of Basic Education and Department of Higher Education and Training, as well as Umalusi-accredited private assessment bodies, namely the Independent Examinations Board (IEB) and the South African Comprehensive Assessment Institute (SACAI).

Umalusi's role is to oversee the examinations and assessments. After the examination papers are set and internally moderated by the assessment bodies, Umalusi performs external moderation. The same external moderation applies to school-based assessment (SBA) tasks. Once the marking and capturing processes are completed by the assessment bodies, the learners' marks are submitted to Umalusi for standardisation (grading) processes.

Umalusi is a highly regarded destination for peers across the African continent seeking to learn from its expertise. Recently, Umalusi has hosted several delegations during their study visits to South Africa, including:

- The Permanent Secretary for Primary and Secondary Education of Zimbabwe on 15 December 2022;
- A delegation from the Ministry of Education in Angola on 15 March 2023;
   Representatives from the Ministry of Secondary Education in Cameroon on 14
   September 2023; and
- The Malawi Council on Higher Education on 15 May 2024.

Umalusi is in the process of finalising plans to host officials from the Kenya National Qualifications Authority during the first week of September 2024.

In addition to its membership in the Southern Africa Association for Educational Assessment (SAAEA), the Association for Educational Assessment in Africa (AEAA), and the International Association for Educational Assessment (IAEA), Umalusi has hosted conferences for these associations. In its early years, Umalusi hosted the 21st AEAA Conference from 25-27 August 2003 in Cape Town. In 2016, Umalusi was granted the honour of hosting the 42nd IAEA Conference from 21-26 August 2016, also in Cape Town. Two years later, the 12th SAAEA Conference was hosted by Umalsui from 13-16 May 2018 in Pretoria. Today, Umalusi is hosting the 40th AEAA Conference in Cape Town for the second time. It seems there is something special about Cape Town as a favoured host city.

Engagements such as study visits significantly contribute to realising the ideals of the African Union's Agenda 2063, "The Africa We Want." This vision is characterised by unity, interconnectedness, and interdependence among African nations.



## **LOCAL ORGANISING COMMITTEE**

Member	Sub-Committee
Dr Agnes Mohale	Chairperson
Ms Tsholofelo Madise	Coordinator
Mr Biki Lepota	Public Relations & Communications Sub-Committee
Ms Nthabiseng Khotlele	Public Relations & Communications Sub-Committee
Mr Robert Skhosana	Public Relations & Communications Sub-Committee
Mr Sphiwe Mtshali	Public Relations & Communications Sub-Committee
Ms Shilela Nkadimeng	Scientific Sub-Committee
Ms Mbalenhle Ngema	Scientific Sub-Committee
Ms Elaine Johnstone	Scientific Sub-Committee
Ms Stephina Munyai	Finance & Supply Chain Management Sub-Committee
Ms Sbahle Mhlaba	Finance & Supply Chain Management Sub-Committee
Ms Mpho Maduane	Registration Sub-Committee
Mr Lebohang Keepeng	Registration Sub-Committee
Mr Thato Khaha	Information Communication Technology Sub-Committee
Mr Victor Mathebula	Information Communication Technology Sub-Committee
Mr Dextor Simelane	Information Communication Technology Sub-Committee
Ms Ditsepu Nkadimeng	Information Communication Technology Sub-Committee
Ms Busisiwe Mhlongo Somo	Social Welfare & Excursions
Ms Pabalelo Majola	Social Welfare & Excursions
Ms Nomaswazi Shabalala	Social Welfare Sub-Committee
Ms Nthabiseng Molata	Social Welfare Sub-Committee
Ms Helen Koorzen	Excursions Sub-Committee
Mr Ashley Naicker	Transport Sub-Committee
Mr Andy Thulo	Transport Sub-Committee
Mr Frank Chinyamakobvu	Transport Sub-Committee
Mr Doctor Phokwani	Transport Sub-Committee
Mr Dennis Twala	Transport Sub-Committee



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## **BIOGRAPHIES OF KEYNOTE SPEAKERS**



**Prof Loyiso Jita** 

Professor Loyiso C Jita began his career as a science and mathematics teacher, after graduating with Biochemistry and Microbiology from the University of the Witwatersrand (WITS). He later took up a lectureship position at the University of Zululand from where he was awarded a Fulbright scholarship to read for a PhD at Michigan State University in the USA. In the mid-1990s, he worked as a Policy Researcher at the Education Policy Unit (EPU), University of KwaZulu-Natal where, among others, he led the compilation and presentation of the submission on the Violation of Educational Rights of South Africans, during apartheid, to the Truth and Reconciliation Commission (TRC). He joined the University of Pretoria (UP) in 2001, after a post-doctoral fellowship at Northwestern University in the USA and was later appointed the Director of the Joint Centre for Science. Mathematics and Technology Education (JCSMTE) at UP. In 2008, he took up an appointment as an associate professor at the University of South Africa (Unisa), where he later became the inaugural Director of the School of Education. In 2011, he became a full professor and was appointed the acting Deputy Executive Dean in the College of Human Sciences at Unisa. He joined the University of the Free State (UFS) as a Research Professor in the School of Mathematics. Natural Sciences, and Technology Education in 2012. In November 2014, he was appointed as the Inaugural SANRAL Chair in Science and Mathematics education. Professor Jita has published many articles on Instructional Leadership, Teacher Development and change, Science and Mathematics education, Lesson Study and has presented over 50 papers at local and international conferences. He has also supervised to completion over 40 PhD graduates and is currently the Dean of Education at the University of the Free State in South Africa.





Dr Nkosinathi Sishi

Dr Nkosinathi Sishi is the Director-General of the Department of Higher Education and Training in South Africa. He is the Accounting Authority of the National Skills Fund. He has 38 years of experience at different spheres of government and state-owned enterprises holding various positions in the Executive and Senior Management Services (SMS) in the public service. Dr Sishi holds a master's degree from the University of KwaZulu-Natal and a doctorate in philosophy specialising in management (education) from the University of Johannesburg. The critical positions held by Dr Sishi include, Superintendent-General: Head of Department (HOD), KwaZulu-Natal Department of Education; Deputy Director-General: Planning, Policy and Strategy; Chief Director: Educational Measurement, Assessment and Public Examinations. Dr Sishi was the chairperson and member of various boards, councils and committees of public entities and inter-governmental organisations such as the Inter-governmental Steering Committee on the National Qualifications Framework, KwaZulu-Natal Examination Board, Ministerial National Examinations Integrity Committee, UMALUSI Council, and the Heads of Education Departments Committee (HEDCOM). Dr Sishi's special achievements include, Gold Award Winner for Best Head of Department in 2015, Author: "Marking Matric" published by the HSRC in 2007, Author: "From Apartheid to Democracy", a prescribed history book published in 1997, A Level Merit awards for excellent leadership, programme and project management and administration of the national examinations system in South Africa - 2006 to 2009.



**Dr Heidi Bolton** 

Dr Heidi Bolton is the Senior Manager: Research at the South African Qualifications Authority (SAQA), the entity that oversees the implementation and development of the National Qualifications Framework (NQF) in South Africa, playing a key role in the coordination of education, training, development and work in the country. Dr Bolton conducts, oversees, publishes, and disseminates research that contributes an evidence base for SAQA's work. Her responsibilities include leading and collaborating in SAQA's research partnerships and projects, integrating research into policy and practice, NQF policy development, and NQF research capacity development. Recent research foci include policy for assessment of quality, Recognition of Prior Learning (RPL), Credit Accumulation and Transfer (CAT), flexible learning-and-work pathways, national education and training systems, and professional designation systems, all of which touch on assessment in some form. Previously she was Senior Researcher at Umalusi, academic textbook publisher, adult learning facilitator, and teacher in the school and university contexts. Her PhD focused on assessment for success across socio-economic contexts.





**Prof Anil Kanjee** 

Anil Kanjee is a Research Professor at the Tshwane University of Technology whose work focuses on addressing the challenge of equity and quality in education. He is the head of the Assessment and Learning Research Programme, and coordinator of the Postgraduate Programme in the Department of Primary Education. He also serves as a Research Fellow at the Oxford University Centre for Educational Assessment. Currently he is supporting the Education Department and Teacher Unions to implement the national Assessment for Learning Pedagogical Strategy in South African schools. He has served as a technical advisor to education ministries in Africa and Asia, UNICEF, UNESCO, the United National Relief and Works Agency for Palestinian Refugees, as well as to the Department of Basic Education, JET Education Services, UMALUSI and the National **Educational Collaborative Trust** 

#### His areas of research focuses on:

- Enhancing the use of classroom and large-scale assessments to improve learning for ALL.
- Learner rights, learner voice and learning across schools in different poverty quintiles.
- Developing models of teacher professional development to address equity gaps in schools.
- Monitoring and evaluation of education systems, programmes and projects.
- Application of Item response theory for enhancing the reporting of assessment results.



**Prof. Vukosi Marivate** 

Prof. Vukosi Marivate is an esteemed Associate Professor at the University of Pretoria, distinguished by his appointment to the prestigious ABSA UP Chair of Data Science. His expertise lies in the domains of Machine Learning (ML) and Artificial Intelligence (AI), with a profound focus on advancing Natural Language Processing (NLP) techniques, particularly in underrepresented local or low-resource languages.

In his role as the leader of the Data Science for Social Impact group, Dr. Marivate spearheads transformative projects across diverse sectors, including energy and public safety. His dedication to leveraging data science for societal betterment underscores his commitment to driving meaningful change. Beyond academia, Dr. Marivate is a catalyst for innovation and collaboration. He co-founded Lelapa AI, an AI startup dedicated to fostering technological advancement tailored to the African context. Additionally, he played pivotal roles in establishing the Masakhane NLP research foundation and co-founding the renowned Deep Learning Indaba, platforms aimed at nurturing talent and fostering community-driven research in AI and NLP. Through his multifaceted endeavors, Dr. Marivate exemplifies a profound dedication to advancing the frontiers of knowledge in data science and Al, while also championing diversity, inclusion, and social impact.



## **BIOGRAPHIES OF LEAD SPEAKERS**



**Dr Andile Dube** 

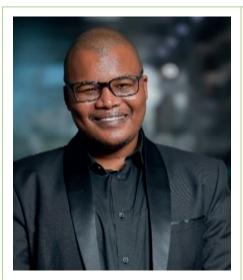
Andile Dube has worked with United Nations Children's Fund (UNICEF) South Africa since 2020 as an Education Manager – Quality and System Strengthening leading work ranging from curriculum and curriculum research including literacy; numeracy and STEM, digital learning and access, teacher development, care and support plus Generation Unlimited – a youth leadership development. Prior to the UNICEF assignment, Andile worked in the Private Sector and Non-Governmental sector in areas including school to work transitions, curriculum, research, business intelligence. She has worked as a Researcher for University of Durban Westville, an Educator at Adams College, a Researcher at ETDP SETA, a Senior Business Intelligence Consultant at Deloitte, Director for Youth Programmes at loveLife, a Director for Systemic and Schools Programmes at Zenex Foundation, a Head of Foundation – CSI/Education and a Consultant at the NECT supporting the establishment of the Education Technical Assistance competency to support the DBE for Systemic Programmes. Andile Dube holds a PhD in Education Policy and Law from the University of Pretoria.



Ms Zinhle Mkhabela

Zinhle is a Senior Monitoring, Evaluation, Research and Learning (MERL) specialist, with just over 8 years cumulative experience working in the private, non-profit and social development sectors. She is currently the Social Impact and Integration Manager at the Old Mutual Foundation, where she supports its social investment programmes to drive towards results and impact, leveraging intentional design, collaboration and integration. Zinhle is passionate about doing work with meaning and applies her multi-disciplinary background in law and development studies to develop knowledge and learning systems, which support evidence-informed programme design and implementation.





Mr Njabulo Khoza

Njabulo Khoza is the Senior Specialist for Education Programmes at MTN SA Foundation. He has built a distinguished career focused on continuous development and technology-enhanced teaching. Previously, Njabulo was the Programme Coordinator at the Vaal University of Technology (VUT) and led a team of specialists and senior teachers at the UCT Online School, a pioneering fully online school backed by the University of Cape Town. His career began as an English teacher in the rural North West province. Njabulo holds a Bachelor's Degree in Education (cum laude), specializing in English and Business Studies in the FET phase. He furthered his education with an Honours Degree in Education Law, Management, and Systems (cum laude), and a Master's Degree in Education Management, Leadership, and Policy Studies. While registered full time and working, he has completed a number of short courses such as a course on Emotional Intelligence at Wits University and a short course on Teaching English Online by the British Council. In recognition of his outstanding contributions, Njabulo received an Excellence Award for producing a 100% pass rate in the 2021 matric results, with average mark of 73.22%. Currently, he is a PhD candidate, researching female leadership in rural secondary schools and the impact of poverty in quintile 1, 2, and 3 schools.



## WORKSHOP PRESENTERS



**Dr Arnold Brouwer** 

Dr Arnold J Brouwer is an international assessment expert in educational measurement and psychological testing. He is an all-around researcher, innovator and consultant of methods and techniques for analysing, optimising and auditing fair, reliable, secure and valid assessments. He is director/owner of the Dutch Research Centre for Examination and Certification. Besides he is a guest lecturer and guest researcher at the Department of Cognition, Data and Education within the Faculty Behavioural, Management and Social Sciences at the University of Twende in the Netherlands.

He obtained his PhD on the System-oriented Talent Management (STM) model, which he elaborated into an evidence-based method for visualising the interaction between human talent and the business purpose from both a psychological and managerial perspective. He carried out external audits, conducted training and provided capacity-building in countries including Azerbaijan, Curacao, Jamaica, Kazakhstan, Mexico, Uganda and the Netherlands.



Prof Matseliso Mokhele-Makgalwa

Professor Matseliso Mokhele-Makgalwa is the Vice Dean: Research, Engagement, and Internationalization in the Faculty of Education at the University of the Free State. Her research interests lie in the area of Teacher Education, particularly on teacher professional development. Her research star has continued to rise from her humble beginnings as a Research Assistant at the University of Pretoria, a Research Officer at the ETDP-SETA, a Research Manager at the Human Sciences Research Council, a Senior Lecturer at the University of South Africa, and Research Associate Professor at the University of Fort Hare. S

he has presented numerous papers at local and international conferences and has published various articles in South African and international scholarly journals. Mokhele-Makgalwa has successfully supervised several master's and PhD students to completion. She is also a recipient of multiple academic awards, including the coveted National Research Foundation (NRF) rating, travel award from the prestigious American Educational Research Association and Resilience in Research Award for UNISA women in Research. She received an award from the Department of Science and Technology as a Distinguished Young Woman Scientist in Social Sciences for her outstanding contribution to building South Africa's scientific and research knowledge base.



The **Independent Examinations Board (IEB)** is an assessment body rooted in South Africa, committed to promoting educational excellence with a reputation that spans the globe. Our commitment to standards and quality ensures that our examinations and assessments are of the highest calibre.

Our mission is to advance quality teaching and learning through the design, delivery, and promotion of innovative and relevant assessments and services.

Our assessments are intentionally designed with the express purpose of cultivating learners who are:

- · informed and critical thinkers
- critical users of information
- ethical reasoners
- problem-solvers
- · creative and reflective thinkers
- lifelong learners
- society members respectful of diversity, particularly in the Southern African context
- active citizens who are committed to upholding the principles of the South African Constitution and the wellbeing of all people.



#### **Opening Doors**

The IEB National Senior Certificate (NSC) examinations, available within South Africa, or our International Secondary Certificate (ISC) examinations, offered to learners outside South Africa are recognised exit qualifications. Both pathways provide learners with access to an extensive range of widely recognised higher education institutions, both locally and internationally.

#### **Expanding Horizons**

The IEB Further Studies subjects in Mathematics, English, and Physics are considered comparable to the GCE Advanced A-level standard. These subjects offer a competitive edge, preparing learners for success in higher education and beyond.

#### **Building Strong Foundations**

Our Primary School Initiative (psi) aims to promote good teaching and assessment practices at the primary school level. This collaborative network of primary school educators shares local and global trends, developments and standards thereby enhancing teaching and assessment practices at the primary level

### **Embracing Lifelong Learning**

The IEB also offers tailored assessments for adult education. The General Education and Training Certificate, NQF Level 1 and AET Levels 1 -3 examinations cater to those advancing their careers or pursuing new academic goals. Our qualifications serve as a gateway to navigating the educational landscape with confidence.

The IEB provides an education that is rooted in African excellence and respected worldwide







## **CONFERENCE PROGRAMME AND SCHEDULE**

DAY 0: SUNDAY 1	8 AUGUST 2024			
08:00 - 18:00		Arrival and Registration of Delegate		
09:00 - 16:00		AEAA Executive Committee (EXCO) Meeting		
DAY 1: MONDAY 1	9 AUGUST 2024			
07:30 - 08:30	<b>Arrival and Registrati</b>	on		
PLENARY SESSIO	N - CHAIR: DR MAFU S	S. RAKOMETSI, CEO	OF UMALUSI	
08:00 - 08:30	Entertainment: School	ol Choir		
08:30 - 08:40	National Anthem			
08:40 - 08:55	Introductions and We	elcome Remarks: Dr N	Mafu S. Rakometsi, CEO of Umalusi	
08:55 - 09:05	Prof Yunus Ballim, Ch	nairperson of Umalus	i Counci	
09:05 - 09:35	Official Opening: Ms South Africa	Siviwe Gwarube, Min	ister of Basic Education,	
09:35 - 09:55	Remarks: Dr David Nj	engere, President of	the AEAA	
09:55 – 11:00	Keynote Address: Pro South Africa	of Loyiso Jita, Univer	sity of the Free State,	
11:00 - 11:20	TEA BREAK			
PARALLEL SESSION	ONS 1			
11:20 - 13:05	WORKSHOP 1: HALL A	WORKSHOP 2: HALL B	PRESENTATIONS: HALL C	
	Session Chair: Ms Mary Malia	Session Chair: Mr Dennis Twala	Session Chair: Dr Helen Sidiropoulos	
11:20 - 11:45	Arnold Brouwer Mastering Competency- Based Assessment: A Ready-to-Go Workshop Aligned with International Quality Standards	Matseliso - Mokhele Makgalwa The Tips on Academic Writing	Julia Staitai 603 - Assessment in flexible learning-and-work pathways SAQA, South Africa	
11:45 – 12:10			Sesi Nxesi, Nomawethu Dumezweni & Lucky Mkhonza 207 - Towards a framework for the assessment and quality assurance of non-traditional learning experiences  ETDP SETA, South Africa	



12:10 - 12:35 12:35 - 13:00			Mark Chetty 739 - Breaking down the walls! – building up an assessment facelift through the General Education Certificate (GEC) that is being piloted in South Africa  DBE, South Africa  Marco MacFarlane 221 - Quo Vadis Knowledge? The case for knowledge in South
			African vocational assessment  QCTO, South Africa
13:00 - 14:00	LUNCH		
PARALLEL SESSION	DNS 2		
	WORKSHOP 1 CONTINUES	WORKSHOP 3	PRESENTATIONS
	Session Chair: Ms Mary Malia	Session Chair: Dr Mary- Antoinette Dliwayo	Session Chair: Dr Deborah Rebecca Kyazze Magera
14:00 - 14:25	Arnold Brouwer Mastering competency- based assessment: A ready-to-go workshop aligned with international quality standards	Anil Kanjee & Jeanette Ramollo Assessment for learning: Policy and practice implications for scaling up in African Schools	Sarah Howie, Mia Andersen & Brent Abrahams 403 - Exploring robust, developmental approaches to quality assurance of schoolleaving assessments in an international environment  Stellenbosch University, South Africa
14:25 - 14:50			Musa Ayanwale 505 - Exploring the possibilities of computer adaptive testing for high-stakes assessment through a feasibility study: A paradigm shift for the Examination Council of Lesotho.  National University of Lesotho, Lesotho
14:50 – 15:15			Doctor Ngema 616 - A critical review of the purposes and authenticity of e-assessment policies and practices
			NATU, South Africa



15:15 – 15:40		Bwembya Ireen, Harrison Daka & Chomba James 721 - Achieving accountability and quality education through assessments: A comprehensive exploration of assessment practices in Zambia  Ministry of Education, Zambia
15:40 - 16:05		Stella Akongo & Alelah Otieno 736 - Assessment of 21st- century skills as accountability in education: Reflecting on Africa's contextualization and assessment approaches  ALIVE, Uganda
16:05 – 17:15	TEA BREAK	
19:00 – 22:00	WELCOME COCKTAIL HOTELS, CAPE TOWN	NFERENCE CENTRE AND OYER

DAY 2: TUESDAY 20	AUGUST 2024				
07:30 - 08:30	O7:30 - 08:30 Arrival and Registration of Delegates				
PLENARY SESSION	- CHAIR: DR DAVID NJENGERE				
08:30 – 9:00	Keynote Address: Dr Nkosinathi Sishi, Department of Higher Education and Training, South Africa The Deafening Silence in the Classroom as Assessment Becomes the Refugee for Accountability				
09:00 - 9:30	Keynote Address: Dr Heidi Bolton, South African Qualifications Authority Overarching Policy for Quality Assessment in South Africa				
09:30 – 11:30	<b>Panel Discussion:</b> Reimagining Educational Assessment: Enhancing Accessibility and Credibility for Learners with Special Educational Needs through Inclusive and Digital Approaches				
	Moderator: Ms Berenice Daniels Panellists:  • Eleanor Bubb  • Joeline McKerry  • Zola Ndika  • Chasfred Ahrends  • Sonja Jonkers  • Adrienne Murray  • Mcneshia Adams				
11:30 – 12:00	TEA BREAK				



PLENARY SESSION	- CHAIR: MS CONF	FIDENCE DIKGOLE		
12:00 – 12:30	Andile Dube, United Nations Children's Fund (UNICEF) South Africa: The A in RAPID recovery, Assessment Towards Learning Recovery			
12:30 – 13:00	Zinhle Mkhabela, Old Mutual: The Use of Mobile Technologies to Support Early Grade Mathematics in South Africa: Lessons from the Old Mutual Education Flagship Programme.			
13:00 – 13:30	<b>Njabulo Khoza, MTN South Africa Foundation:</b> ConnectED – A reflection of connecting one community to the other and one school at a time using the community centred approach.			
13:30 - 14:30	LUNCH			
14:30 - 14:55	PARALLEL SESSI	ONS 3		
Hall A	Hall B	Hall C	Room 11	Room 8 + 9
Chair: Dr Mokhiti Khoabane	Chair: Dr Amos Josiah Dangut	Chair: Prof Dorothy Nampota	Chair: Dr Moreetsi Thobega	Chair: Mr Pa Samba Baldeh
Michéle Botha 209 - Unconventional Pathways: Nurturing essential competencies in primary education	Sibusiso Masuku 711 - Enhancing scientific reasoning in Eswatini classrooms: Leveraging Feedback from Physical Science public examinations	Jabulisile Ngwenya & Orhe Arek-Bawa 716 - Learning in eclectic formative assessment strategies: A case of Accounting pre-service teachers in one Higher Education institution	Peter Ruddock 516 - Embracing digital transformation: Exploring electronic assessment for Visual Arts in high-stakes examinations	Job Boikanyo 628 - An evaluation of the characteristics of the item parameters of the Science Junior Certificate Examinations using IRT
IEB, South Africa	ECESWA, Eswatini	UKZN, South Africa	IEB, South Africa	BEC, Botswana
14:55 – 15:20	PARALLEL SESSI	ONS 3		
James Nderitu & Peter Masayi 226 - Enhancing tacit knowledge sharing among learners with intellectual disabilities in integrated schools In Kenya.	Tinyiko Khosa & Priscilla Ogunbanjo 733 - The centrality of standard setting in the monitoring and evaluation of examination and assessment practices	Fiona Singh & Ntombizodwa Linda 107 - Experiences of student nurses in digital assessments at historically disadvantaged institutions in South Africa	Helen Sidiropoulos 515 - Navigating tomorrow: The IEB's Al-enhanced learning and assessment experience	Safoora Gqotso 605 - A critical evaluation of the impact of implementation practices of the current assessment policy framework over the period 2013 to 2023 in the developing context of the Western Cape province
KNEC, Kenya	DBE, South Africa	UniZulu, South Africa	IEB, South Africa	PDE - WCED, South Africa



15:20 - 15:45	PARALLEL SESSI	ONS 3		
Fanny Chilunga 204 - Interrater reliability of MSCE marking: The case of Mathematics	Nomsa Zindela & Keamogetse Moganedi 718 - Exploring levels of language complexity in Mathematics questions: The case of probability and counting principles in the South Africa National Senior Certificate examination papers (2020-2023)	Matthias Miti, Florence Obong Capuc & Moses Mugizi 506 - Transitioning to digital assessment: What are the perceived benefits, enablers and barriers in high stakes examinations in Uganda?	Ifeoma Isiugo-Abanihe, Abimbola Olaniregun & Irene Ovekairi Iluobe 529 - Transiting to digital assessment in Technical Colleges in Nigeria	Javangwe Elenia 614 - A framework for integrating citizenship education in the pedagogy and assessment of science practical work: The case of Combined Science in Zimbabwe
MANEB, Malawi	UNISA, South Africa	UNEB, Uganda	NABTEB, Nigeria	ZIMSEC, Zimbabwe
15:45 - 16:10	PARALLEL SESSI	ONS 3		
Khwaka Mary Cajo 205 - Teacher Assessment Proficiency and Learner Achievement in the New Lower Secondary Entrepreneurship Curriculum in Uganda	Tatiana Sango, Kalpana Kanjee & Kate Koch 724 - Creating a data-driven 1st year student support programme through learning analytics: two case studies	Mamathe Malepa-Qhobela & Mokhitli Khoabane 514 - Teachers' Perceptions of Re-imagining Digitalisation of the LGCSE National Examinations	Karl Turnbull, Elizabeth Ndjendja, & Aune Victor 530 - Transforming educational high-stakes data through OpenEMIS Exams: A Namibia Experience	Hellen Mkhwanazi 619 - Investigation of the implementation and management of the School Based Assessment (SBA) in the General Education and Training (GET) Band in South Africa
UNEB, Uganda	UCT, South Africa	ECOL, Lesotho	MoEAC, Namibia	PDE-MP, South Africa
16:10 - 16:25	TEA BREAK			
19:00 – 22:00	CULTURAL DINN CAPE TOWN (HA		CONFERENCE CI	ENTRE AND HOTELS,



DAY 3: WEDNESDAY 21 AUGUST 2024					
08:00 - 08:30	3:00 – 08:30 Arrival and Registration of Delegates				
PLENARY SESSION - CHAIR: MS CLEMENTINE TSUMIS-GARISES					
08:30 - 09:30	<b>Keynote Address: Prof Anil Kanjee, Tshwane University of Technology</b> The role of assessing in improving accountability and quality of education provision				
09:30 - 11:00	<b>Panel Discussion:</b> Rethinking educational assessment to support learner competencies in changing global society				
	Moderator: Dr Arnold Brouwer Panellists: • Cheryl Weston • Andile Dube • Freda Walters • Gifted Maziya • Shirley Eadie				
11:00 - 11:20	TEA BREAK				
11:20 - 11:45	PARALLEL SESSION	ONS 4			
Hall A	Hall B	Hall C	Room 11	Room 8+9	
Chair: Ms Polo Lemphane	Chair: Dr Elizabeth Ndjendja	Chair: Mrs Frances Nkeiru Iweha-Onukwu	Chair: Mr Andrew Otieno	Chair: Dr Marco McFarlane	
Phenyane Tlali 400 - The Effectiveness of WhatsApp E-learning during and post Covid-19 pandemic: A case of English language at Lesotho Secondary Education	Ifeoma Isiugo- Abanihe, Philomena Iro-Aghedo & Catherine Omeonu 627 - The implementation of technical, vocational education and training policy and its impact on assessment practices in Technical Colleges In Nigeria.	Henry A Muloongo, Smart Sakala, Clement Kaula & Akakulubelwa Nalishuwa 512 - From Manual to Electronic Examiner Management System: The Experience of the Examinations Council of Zambia.	Lilian Nakawala 312 - Examinations malpractice and the administered penalties. evidence from Uganda Business and Technical Examinations Board (UBTEB).	Alison Rodrigues & Carla Campos 740 - Emotions in Assessment: A Systematic Literature Review.	
ECOL, Lesotho	NABTEB, Nigeria	ECZ, Zambia	UBTEB, Uganda	Cambridge University Press and Assessment, United Kingdom	



11:45 – 12:10	PARALLEL SESSION	ONS 4		
<b>Dennis Kaggwa</b> & Mcbernard Muhwezi 220 - Assessing learning outcomes of competence- based education and training in the field of spatial sciences in Uganda	Rufus Poliah 732 - Can the tail wag the dog? - A case for assessment review in the South African context	Adunola Osoba, A. M. Akinbuluma & O. O. Olubanwo 615 - Stakeholders Involvement in WAEC's Approach at Curbing Examination Malpractice in The West African Senior School Certificate Examination in Nigeria	Amos Dangut, Rosemary Ojo- odide & Busari Atinuke 528 - Perceptions and experiences of candidates and proctors at the Computer Based West African Senior School Examination (CB-WASSCE)	Peter Masayi & James Nderitu 741 - Challenge of learners missing school based assessment scores; A Kenya context.
UBTEB, Uganda	DBE, South Africa	WAEC, Nigeria	WAEC, Nigeria	KNEC, Kenya
12:10 – 12:35	PARALLEL SESSIC			
Ifeoma Isiugo- Abanihe, Abimbola Olaniregun & Evelyn Egonmwan 214 - Quality assurance in	Helen Mukakarisa & Betty Masengere 703 - Candidates' perspectives of effect of	Medson Mapuya 727 - Evaluating the role of assessment in improving	Princess Bembe (Moeng) & Nomsa Zindela 624 - Comparing the levels	Boniface Lisuba, Beauty Choobe & Allan Musonda 622 - Improvement of Biology School- Based Assessment
the assessment of trainees in Technical, Vocational Education and Training Institutions In Nigeria.	assessment on stakeholder Accountability and quality of nurse training. A case of the December 2023 UNMEB Semester Examinations	accountability and quality of education provision in Accounting education. A Management Perspective	of linguistic complexity in the reading comprehension passages set for the NSC EFAL Grade 12 Paper 1 examinations from 2019 to 2023	Implementation - Perspectives of Teachers at Selected Secondary Schools of Kitwe District



12:35 - 13:00	PARALLEL SESSION	ONS 4		
Mbalenhle Ngema 213 - Redefining assessment standards: A framework for examination guidelines in South African basic education	Florence Mary A Buyinza 705 - The nature of assessment and its responsibility in influencing quality education in primary schools of Uganda	Shannon Doolings 720 - Exploring strategies for marking History to impact teaching and learning. A Western Cape Education Department case study	Bonnge Taolane 500 - The learners' perspectives on incorporating digital assessments in LGCSE examinations in Lesotho	Maria Kekana 634 - An investigation of the assessment practices in mathematics
Umalusi, South Africa	UNEB, Uganda	PDE – WCED, South Africa	ECOL, Lesotho	PED - MP, South Africa
13:00 – 14:00	LUNCH			
14:00 - 14:25	PARALLEL SESSION	ONS 5		
Hall A	Hall B	Hall C	Room 11	Room 8 + 9
Chair: Mr Shadreck Nkoya	Chair: Ms Violet Tshetlo	Chair: Mr Sibusiso Masuku	Chair: Mr Job Boikanyo	Chair: Ms Fanny Chilunga
Okello Jimmy 210 - Use of mean index approach to assess learning experiences of individuals in group work science practical	Sifiso Hlandze 730 - Investigating the role of public examinations towards quality education in Eswatini	Grace Onoja 701 - Improving accountability and quality of education through the UTME	Matthias Avong 532 - The behavioural change of Economics multiple-choice items between paper-based and computer- based testing methods	Elaine Johnstone 630 - The assessment of learners with mild to moderate intellectual disabilities
UNEB, Uganda	ECESWA, Eswatini	JAMB, Nigeria	WAEC, Nigeria	Umalusi, South Africa



14:25 – 14:50	PARALLEL SESSION	ONS 5		
Christo Thurston 223 - Are we seeing the signs? Incorporating South African Sign Language Home Language into the National Senior Certificate examinations: Successes and challenges	Kenneth Foncha & Tah Delphine Berka 707 - Data from public examinations as surrogate indicators in the measure of education quality and accountability. Evidence from Cameroon	Nahamya Wilfred 216 - Assessing gender stereotypes in vocational education and training. The case of diploma level engineering Trainees in Uganda	Amos Dangut, Umeokeke Chinyere, Clementina Fanimokun & Adebayo Ayo 527 - Paradigm shift in high stake assessments in Nigeria: The West African Examinations Council (WAEC) experience	Aisha Dabarako & Abubakar Balade 111 - A cross-sectional study on the role of the Joint Admissions and Matriculation Board in reforming the assessment process amid the growing academic decadence
DBE, South Africa	JCEB, Cameroon	UBTEB, Uganda	WAEC, Nigeria	JAMB, Nigeria
14:50 - 15:15	PARALLEL SESSION	ONS 5		
Daniel Alenyo 401 - Guidance and Counselling: a perceived missing link among learners with visual impairments in secondary schools in Uganda.	Opesemowo Oluwaseyi Aina Gbolade 612 - Undue Advantage: Exploration of Differential Item Functioning in High-Stake Assessment.	Ashlin Pillay 509 - Digital Integration in High-Stakes Assessments: Use of CAD in Engineering Graphics and Technology.	Elizabeth Ndjendja & Rauna Ndinoshiho 531 - The Use Of E-Systems (Digital Platforms) In The Administration Of NSSC Examinations.	Saumyadripta Chaudhuri, Tamanna Arora, Anannya Chakraborty, & Priyanka Sharma 731 - System Transformation for Better Accountability - Evidence from South Asia Region.
UNEB, Uganda	UJ, South Africa	IEB, South Africa	MoEAC, Namibia	ACER, India



15:15 - 15:40	PARALLEL SESSIONS 5			
Doom lyortyom & Grace Onoja 103 - Providing access, credibility and accountability through digital assessments: The UTME perspective.	Johnson Adebiyi & Hadiza Khaleel 613 - Improving Assessment Practices Through Candidate Feedback: The case of Joint Admissions and Matriculation Board (JAMB).	Alhaji Janneh, Osman Kamara & Foday Turay 503 - Prospects and Challenges of Conducting the West African Senior School Certificate Examination as a computer- based examination in Sierra Leone.	Priscilla Atte & Patrick Onyeneho 106 - Ascertaining The Credibility Of Assessment Instruments through the application of Item Response Theory: Perspective On The 2014 UTME Chemistry Test.	Banji Milumbe 305 - Securing Paper-based Examinations using Internet of Things.
JAMB, Nigeria	JAMB, Nigeria	WAEC, Sierra Leone	JAMB, Nigeria	ECZ, Zambia
15:40 – 16:05	PARALLEL SESSION	DNS 5	I	I
Nathan Roberson 101 - A comparison of implementing the competencies compound inventory for the 21st Century: From South Africa to Brazil	Saukwaeli Swai 525 - Using tablets to improve teaching and assessment of secondary school learners in Tanzania	Louisa Muparuri 743 - Use of a Generative Al Model in the marking of Ordinary Level English Composition	Chilwalo Loveness 212 - Quality assurance practices, opportunities and challenges in the implementation of prior learning assessments in TEVET in Zambia	Dantani Wushishi, Innocent Ezenwanne & Lukman Suleman 522 - The National Examinations Council of Nigeria (NECO) and the transition to digital assessment in high-stakes public examinations: A quantitative exploration
Beyond Education, France	NECTA, Tanzania	ZIMSEC, Zimbabwe	TEVETA, Zambia	NECO, Nigeria
16:05 - 16:25	TEA BREAK			
16:25 – 18:00	AEAA BUSINESS MEETING			
19:00 – 22:00	KOFIFI SOPHIATOWN-THEMED DINNER: CENTURY CITY CONFERENCE CENTRE AND HOTELS, CAPE TOWN (HALL A+B)			



<b>DAY 4: THURSDAY</b>	22 AUGUST 2024			
08:00 - 08:30	Arrival and Registration of Delegates			
PLENARY SESSION	- CHAIR: DR MICHAE	L CHILALA		
08:30 - 09:30	Keynote address: Prof Vukosi Marivate, University of Pretoria			
09:30 – 11:00	Panel Discussion: Reimagining Educational Assessment for Emerging Industries: Enhancing Youth Employability through Digital Platforms			
	Moderator: Thuli Mahlangu Panel:  • Christo Thurston  • Alex Beyers  • Buti Makama  • Dr Elizabeth Ndjendja			
11:00 – 11:20	TEA BREAK			
11:20 - 11:45	<b>SESSION 3: PARALLE</b>	EL SESSIONS		
Hall A	Hall B	Hall C	Room 11	Room 8+9
Chair: Mr David Diale	Chair: Ms Diana Makau	Chair: Ms Maneo Mohale	Chair: Prof Dantani Wushishi	Chair: Mr Henry A Muloongo
Polo Lemphane & Mokhitli Khoabane 404 - Technology equipment donation for teaching French as a foreign language in Lesotho secondary schools	Josephine Mutonyi Othieno 610 - Assessment practices and academic achievement in Biology at advanced level in secondary schools in Wakiso District, Uganda	Pa Samba Baldeh 737 - A practice-centric perspective on formative assessment	Oladipupo Oladele 303 - Knowledge, attitude, and compliance to public examination ethics by assessment stakeholders in Edo State of Nigeria	Karen Dos Reis & Carina America: Towards a quality assurance framework for online assessments of business education in the FET phase



11:45 - 12:10	SESSION 3: PARALLI	EL SESSIONS		
Masantho Rakeketsi 410 - The impact of partnership strategies in enhancing learning outcomes in Maseru Secondary Schools	Biki Lepota 609 - The effect of marking concessions on examination standards	Siphiwe Sibiya & Lindiwe Sibandze 533 - Assessing Secondary Schools' Digital Readiness for Transition to Digital Assessments	Nishani Harinarain & Neil Kramm 513 - Navigating online peer assessment in Land Surveying Education: Enablers, constraints and learning outcomes	Reetumetsi Malefane 738 - The Development of a Comprehensive Evaluation Framework for Technical Working Drawings in Studio Work for Architectural Technology Education
ECOL, Lesotho	Umalusi, South Africa	ECESWA, Eswatini	UKZN, South Africa	NMU, South Africa
Betty Habaasa Nalukenge 413 - Inequity in Education Outcomes and Accessibility of Learners with Disability in Uganda	Oriyomi Olubanwo, Ayobode Akinbuluma & Adenike Akinlua 310 - The Need for Plausible Distractors in Multiple Choice Questions	Amos Dangut & L. U. Igwe 301 - Digitalization of Continuous Assessment Scores (CASS) at WASSCE: Quest for Credible Data at WAEC	Aisha Muhammad 306 - Safeguarding Assessment Data: Balancing Security and Ethical Standards	James Nderitu & Kennedy Abuje 636 - Challenges Of Utilising Knowledge Management Systems In Kenya And Its Impact On Learners' Learning Outcomes In Secondary Schools.
UNEB, Uganda	WAEC, Nigeria	WAEC, Nigeria	JAMB, Nigeria	KNEC, Kenya



12:35 - 13:00	PARALLEL SESSION	S 5		
Muhwezi McBernard 417 - Industry involvement in the assessment of workplace learning	Nthabeleng Lepota 313 - Randomisation of test items in an assessment instrument as a function of exam integrity and security	Jane Kamau 215 - Assessment for Affordable Housing Project Artisans in Kenya	Esther Khundi 110 - Evaluation of the Electronic Funds Transfer Method for Payment of Examination Administrators	Abdoulie Minteh 534 - Prospects and challenges of conducting the West African Senior School Certificate Examination for School Candidates (WASSCE SC) as a Computer-based examination (CBE) by West African Examinations Council in The Gambia
UBTEB, Uganda	QCTO, South Africa	NITA, Kenya	MANEB, Malawi	WAEC, The Gambia
13:00 – 14:00	LUNCH			
14:00 - 14:25	PARALLEL SESSIONS			
Hall A	Hall B	Hall C	Meeting Room 11	Meeting Room 8+9
Chair: Dr Daniel Ramoroka	Chair: Mr Peter Ruddock	Chair: Ms Cindy Thomas	Chair: Dr Sifiso Hlandze	Chair: Ms Cheryl Theresa Westo
Matsobane Setsiba 308 - Investigating the Role of Technology in Facilitating Multidimensional Assessment in Higher Education in the Western Cape Province	Moeketsi Rakhosi 620 - Exploring The Possible Impact of Pretesting the Lesotho General Certificate of Secondary Education Examination Questions	Ashenafi Bogale 606-Practice and Challenges of Continuous Assessment implementation in Secondary Schools: A Case of Addis Ababa, Ethiopia	Bianca Mkhize-Simelane 602 - Enhancing Assessment Practices in Tourism Education: A Comparative Study of Summative Assessments in Tourism second year Modules in a University Setting	Patricia Ndlovu 415 - Strategies for Enhancing Learning Outcomes through Partnerships in South Africa's Education Sector
IIE – Rosebank College, South Africa	ECOL, Lesotho	EAES, Ethiopia	CUT, South Africa	NCSA, South Africa



14:25 - 14:50	PARALLEL SESSIONS	S 6		
Johnson Adebiyi, Ebenezer Owolafe, Florence Obini & Ifeyinwa Ugochukwu 520 - Role of Unified Tertiary Matriculation Examination (UTME) in Promoting Digital Literacy Skills: A Case Study of 2022 UTME Candidates in South-Eastern, Nigeria	Akinyele O. Ariyo 504 - Exploring the Trends of High Stakes Examinations Transitioning from Paper- Pencil Test to Digitalised Assessment	Nkoloyakhe Mpanza 726 - A Correlational Study of Candidates' Examination Scores between Mathematical Literacy and English First Additional Language - A case of five examination cycles of the NSC Qualification conducted by the DBE in South Africa	Dantani Wushishi, Innocent Ezenwanne & Lukman Suleman 309 - Optimizing Data Assessment Security and Ethical Practices: An Analysis of Data Minimization Strategies in National Examinations Council (NECO)	Abubakar Umar 224 - Information Technology and E-learning in nomadic education delivery system. A review of Zamfara State nomadic education program delivery
JAMB, Nigeria 14:50 – 15:15	CQ Tech, USA  PARALLEL SESSIONS	Umalusi, South Africa	NECO, Nigeria	ZSUT, Nigeria
Nosihle Veronica Sithole 519 - Topic: Reinforcing Digital Assessment in Accounting High-Stakes Examinations	Priscilla Atte, Ismaila Jimoh, & Patrick Onyeneho 302 - Assessing candidates' involvement in e-cheating in high- stakes examinations and the challenges associated with e-Devices in managing public examinations	Ben Rockliffe & Gemma O'Brien 105 - Personalised assessments in Wales: A case study of on- screen adaptive formative national assessment	Tennison 222 - Assessment methodologies for recognition of prior learning	Deborah Rebecca Kyazze Magera 704 - "The Impact of Assessing Early years Children's Holistic Development Towards Improving Accountability and Quality of Education Provision in Uganda Perspective
CUT, South Africa	JAMB, Nigeria	AlphaPlus Consultancy Ltd, United Kingdom	QCTO, South Africa	Edusphere Education, Uganda



Jagbeer Kaur,				
Navya Gugnani, Sanjay Tripathi & Ashtamurthy Killimangalam 419 - Unlocking Learning Potential: Partnership Strategies for Accessibility and Enhanced Learning Outcomes	Boipuso Mosalakgotla 601 - Composite Measure of Competitiveness and Relevance of BEC Qualifications.	Zanele Dube-Xaba 714 - School- Based Assessment As a Drive To Self-Regulated Learning: Experience Of Tourism Learners	Daniel Ramoroka 744 - The Sounds of Silence, Cuito Cuanavale: Analysis of South African History textbooks and Assessment instruments	Nolwazi Ntombela & Makhosazane Nyoni 112 - Breaking Barriers: Enhancing Accessibility Through Digital Assessments"
ACER, India	BOTEPCO, Botswana	UKZN, South Africa	DHET, South Africa	ECESWA, Eswatini
15:40 - 16:05	PARALLEL SESSIONS	S 6		
Ntsasa Lisema & Mokhitli Khoabane 607 - Changing Trends in Participation in the LGCSE Mathematics: Concise of the extended option component	Shakazo Mzyece 734 - Making assessment outcomes count: A retrospective analysis of research findings on the quality of education provision for enhanced performance and accountability	Robyn Mowatt 408 - Mapping Geospatial Literacy: A partnership approach to integrate GIS in the FET Geography curriculum	Abeeb Adeyemi 307 - Beyond Forgeries: Enhancing JAMB UTME security measures for transparency and reliability in Nigeria	Nomaswazi Shabalala 100 - Maintaining assessment standards: Efficiency of e-moderation pilot in the NSC qualification
ECOL, Lesotho	ECZ, Zambia	IEB, South Africa	JAMB, Nigeria	Umalusi, South Afica
	TEA BREAK			
16:05 – 16:30				

07:30 – 18:00 EXCURSIONS (NO CONFERENCE DINNER)

**DEPARTURE** 



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## **ABSTRACTS FOR KEYNOTE SPEAKERS**

# KEYNOTE ADDRESS 1 (DAY 1): DIFFICULT DIALOGUES ON ASSESSMENT: THE CASE OF QUALITY AND EQUITY IN MULTIPLE DIMENSIONS

Prof Loyiso C. Jita

Dean and SANRAL Chair in Science and Mathematics Education, University of the Free State, South Africa jitalc@ufs.ac.za

Over 30 years ago, Robert Marzano and his team introduced us to the term "Dimension of Learning" to describe the various complex and multifaceted "types of knowledge" and the different "aspects of processing" that are involved in (student) learning. Based on years of research and theory on learning, they proposed an instructional framework that is premised on the view that five types of thinking or what they called the dimensions of learning, are essential to successful learning. These ideas gave rise to a new way of setting learning targets and helped to launch what was to be viewed as a new "taxonomy" comprising of six levels of learning. Marzano and team's work on the dimensions continued on and complicated the challenges presented by earlier taxonomies of learning, especially for those of us interested in developing tools and measures of student learning for an increasingly diverse populace.

This paper traces the work of scholars on taxonomies and their implications for instructional planning and assessment with a view to unpacking the challenges and complexities introduced by the multiple dimensions of learning as we have come to understand them, especially in relation to learner assessment. The paper presents an argument on the need to rethink educational assessments, particularly the large scale high-stakes national assessment in various countries in the context of quality and equity imperatives.



# KEYNOTE ADDRESS 2 (DAY 2): THE DEAFENING SILENCE IN THE CLASSROOM AS ASSESSMENT BECOMES THE REFUGEE FOR ACCOUNTABILITY

Dr Nkosinathi Sishi

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This paper analyses the assessment regime in the South African education system, especially in schools and colleges, to assess the extent to which all role players, irrespective of their positions, can be held accountable for assessing educational outcomes. The argument in this paper is that the weaponisation of assessment tools to improve accountability has undermined the elements of assessment for learning in order to micro-manage teachers and learners in the classroom. Critical theories characterise such measures as "pedagogies of regression". Assessment for learning, which has the potential to allow learners and students the opportunity to construct their own knowledge creatively and critically in line with Vygotsky's socio-cultural constructivism, has now become a casualty in favour of controlled assessment, a political control measure to hold teachers and learners accountable. The central question in this study is: Who should hold those wielding the hegemonic power in the production of assessment instruments to achieve their political agendas, accountable? This question is not limited to Government education departments, but also to media houses who are holding the Department accountable for quality of educational outcomes. The study is based on the conceptual framework of ideological critique and critical pedagogy professed by critical theorists such as Henry Giroux, Peter McLaren and Paulo Freire. According to Giroux, education cannot be conceptualised as ideologically neutral and those who defend claims for neutrality in curriculum documents and media content do so in order to escape accountability. Under normal circumstances, accountability is directed at the passive recipient of results such as teachers, learners and parents, but the designers of the curriculum and assessment policies are not held accountable. Therefore, the ideological critique is a method used to unravel the ideological underpinning of curriculum documents as well as media statements relating to education and assessment.



# KEYNOTE ADDRESS 3 (DAY 2): OVER-ARCHING POLICY FOR QUALITY ASSESSMENT IN SOUTH AFRICA"

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The South African system for education, training, development, and work is framed by the National Qualifications Framework (NQF), a system chosen to integrate and reform the unequal and unfair practices before democracy. The NQF objectives of access, redress, mobility, progression, quality, and transparency, are achieved by implementing the NQF policy suite. This suite comprises policies for qualifications, recognizing learning, credit transfer, professional bodies, and assessment, amongst others. The intention is for National Policy for Designing and Implementing Assessment broadly to frame assessment across diverse NQF contexts. The South African Qualifications Authority (SAQA) oversees the development of the NQF policy suite, and the three Quality Councils – that quality assure general and further, higher, and occupational qualifications respectively – elaborate aligned policies for their stakeholders.

This paper seeks to address the question 'What aspects are included in the assessment policies of high-achieving schooling systems, higher education institutions and vocational bodies?' It reports an analysis of overarching National Policy for Designing and Implementing Assessment (SAQA, 2014) in relation to selected assessment policies linked to high-achieving entities in the international studies and rankings identified. It utilizes a literature review as well as policy comparisons. It seeks to understand the content of assessment policies linked to the high-achieving countries and entities.

The research on which the paper is based was qualitative, comprising thematic analysis of the content of the selected assessment policies. Over-arching, schooling, higher education, and occupational training policies were identified for the 20 countries selected for analysis using Progress in International Reading and Literacy Studies (PIRLS, 2021), Trends in International Mathematics and Science Study (TIMMS, 2019), Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ, 2017); Quacquarelli Symonds Universities Rankings (QS, 2024); and vocational bodies internationally.

The analysis showed key areas for development in South African national policy, in particular, academic integrity and ethics; plagiarism; online assessment and technology and assessment generally; greater elaboration in enabling and supporting diverse groups, and disability groups; and 'closing the loop' between current and future learning and work. The paper closes with related recommendations.

Keywords: National Qualifications Framework (NQF), Assessment, Assessment Principles, Assessment Integrity and Ethics, Plagiarism, Online Assessment, Technology (AI) and Assessment, Assessment and Diverse Groups, Assessment and Disability Groups, Closing the Loop.



# KEYNOTE ADDRESS 4 (DAY 3): THE ROLE OF ASSESSMENT IN IMPROVING ACCOUNTABILITY AND QUALITY OF EDUCATION PROVISION

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This keynote address explores the crucial role of assessment in enhancing accountability and improving the quality of education in Africa. Drawing from the experiences and research within developed and developing nations, particularly African countries, the presentation offers practical insights and strategies for the Association for Educational Assessment in Africa and its members to effect positive change in their respective education systems to improve learning for all learners, especially learners from poor and marginalised communities.

The presentation begins by clarifying essential concepts related to education quality, equity, and accountability, and their interplay with assessment. It examines the measures and methods used to implement accountability systems, to determine quality and how this impacts on teaching and learning. The address also clarifies relevant terminology regarding the purpose of assessment, available evidence types, and their potential uses for improving learning, and learning outcomes, for all learners.

The keynote delves into the applications of assessment at the classroom, national, and international levels, and their influence on accountability, learning, and learning outcomes. It presents a framework for an integrated National Education Assessment System, as well as a model for scaling up relevant capacity development interventions aimed at enhancing the use of assessment for improving learning for all, outlining its impact on policy at the systems level and practice at the school and classroom levels.

Emphasising the contributions of key role-players, particularly policymakers and academics, the presentation concludes by offering practical options for addressing the challenges of equity and quality in African education. The keynote ultimately seeks to contribute to current discourse and debates by sharing relevant insights and actionable strategies for harnessing assessment policy and practice to support enhanced learning, and improved learning outcomes, for all learners in Africa.



# KEYNOTE ADDRESS 5 (DAY 4): AI AND EDUCATION: OPPORTUNITIES AND PITFALLS FOR LANGUAGE DRIVEN TECHNOLOGIES

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I explore the transformative potential of AI in education, focusing on the development of African NLP tools. I will highlight how these tools can enhance educational outcomes by providing resources tailored to African languages, thus improving accessibility and comprehension for students. By creating low-resource NLP tools, we can support diverse linguistic needs, ensuring that students learn in their native languages. I will also address challenges such as biases and resource limitations. My goal is to show how developing African NLP tools can revolutionize education and empower learners across the continent.

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Cambridge has been a sponsor, presenter, and regular attendee of the AEAA conference over several years and look forward to our conversations ahead.

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## ABSTRACTS FOR LEAD SPEAKERS

# LEAD SPEAKER 1: THE A IN RAPID RECOVERY, ASSESSMENT TOWARDS LEARNING RECOVERY

#### Dr Andile Dube UNICEF South Africa

Learning crisis as an aftermath of the main Emergency and Humanitarian crisis threatens the future of many children in Africa. While countries have improved access to education for many children, prolonged school closures as a result of COVID-19 and other emergencies have worsened educational outcomes in many countries. Evidence shows that ninety percent of the children in Africa cannot read for meaning or solve simple numeracy problems. In the case of South Africa, PIRLS 2021 shows that eighty-one percent of the children cannot read for meaning. This is a ten-year loss of improvement between 2016 and 2021, reversing gains made over ten years. This is largely a result of the global pandemic that caused prolonged school closures, resulting in children's regular teaching and learning. This crisis has geo and poverty characteristics, that is, more rural children and those from poorer homes are affected.

To address these issues, the RAPID recovery framework guides countries on Reaching every child and keeping them at school, Assessing Learning Levels Regularly, prioritising teaching the Fundamentals, Increasing the Efficiency of Instruction, and Develop Psychosocial Support. The presentation will delve into the assessment of learning levels regularly to end learning poverty. It negotiates for the harmonisation of assessments from school-based to national assessments and the promotion of use thereof. Critical components around plans, systems, capacity, and data usage are the core for enabling the A in RAPID recovery.



# LEAD SPEAKER 2: THE USE OF MOBILE TECHNOLOGIES TO SUPPORT EARLY GRADE MATHEMATICS IN SOUTH AFRICA: LESSONS FROM THE OLD MUTUAL EDUCATION FLAGSHIP PROGRAMME

Ms Zinhle Mkhabela Social Impact and Integration Manager Old Mutual Foundation zmkhabela@oldmutual.com

Since its inception in 2021, the Old Mutual Education Flagship Programme – Literacy and Numeracy has sought to improve learner's ability to acquire basic literacy and numeracy skills, so that they are better equipped to succeed in higher grades. The "LitNum Programme" leverages an array of different implementing partners, who drive initiatives across 150 underresourced schools in the Eastern Cape, Limpopo, and Mpumalanga. These partners use a combination of strategies to improve access to quality learning material and to develop capabilities that support effective language and numeracy learning in the classroom. The various strategies used to enhance programme outcomes have included the integration of mobile technologies, which have become increasingly recognized as highly promising for accelerating progress towards language and mathematics learning in early grades. In particular, there is a growing number of interventions that apply mobile learning (m-learning) to support real-time assessment and monitoring of learner performance. However, the great potential of m-learning is also challenged by its limitations, which includes the paucity of research and evidence about what works and does not work in the context of South African classrooms.

JumpStart is an example of an m-learning intervention, which the LitNum programme has supported since 2021. The intervention combines teacher training, structured learning material and in-classroom support by teacher assistants to improve Foundation Phase learner performance in mathematics in 50 schools in the Eastern Cape. As a core element of its model, JumpStart uses mobile technology to generate real-time formative assessment data for use in the classroom, which is recognized as a unique feature of the intervention. In this paper, we offer JumpStart as a case study to contribute to evidence about the utilization of m-learning applications to support teachers' assessment practices in early grade mathematics, and its effects. We provide analysis of the programme's monitoring data sets to reflect on the theories that underpin JumpStart's m-learning model and appraise the efficacy and fidelity of the model's implementation in the 50 intervention schools. We combine this analysis with an assessment of the performance of a purposively selected sample of learners. Overall, our paper shares lessons about the impact of m-learning on numeracy skills in under-resourced schools in South Africa.

Keywords: early grade mathematics, South Africa, formative assessment, mobile learning, mobile technologies



# LEAD SPEAKER 3: CONNECTED – A REFLECTION OF CONNECTING ONE COMMUNITY TO THE OTHER AND ONE SCHOOL AT A TIME USING THE COMMUNITY CENTRED APPROACH

Mr Njabulo Khoza MTN South Africa Foundation Njabulo.Khoza@mtn.com

The MTN Group, a leading multinational telecommunications operator, was established in South Africa in 1994 with a commitment to transformation. Driven by the belief that everyone deserves the benefits of a modern connected life, MTN Group offers a wide array of voice, data, digital, fintech, wholesale, and enterprise services to over 290 million customers across 19 markets in Africa and the Middle East. In 2001, MTN South Africa founded the MTN SA Foundation as its corporate social investment (CSI) arm. The Foundation collaborates with communities, civil society, and other corporate entities to support development initiatives in disadvantaged communities throughout South Africa. Its mandate is guided by the ICT Charter, which emphasizes the importance of ICT-led social investments. The MTN SA Foundation focuses on four primary areas: Education, Youth and Women Programmes, Arts and Culture, and Special Programmes. Education is the largest and flagship portfolio, working with strategic partners such as the Department of Basic Education (DBE), the National Education Collaboration Trust (NECT), and Umalusi. Through these partnerships, the Foundation launched the MTN Online School, a zero-rated educational platform for learners from Grade R to Grade 12. This platform aims to bridge the digital divide, promote e-learning in rural and marginalized schools, and foster future skills in rural areas, benefiting over 1.3 million learners nationwide. Additionally, the Foundation has supported the digitization of Computer Applications Technology (CAT) and Information Technology (IT) textbooks and has zero-rated the Siyavula platform to ensure equitable access for learners. These efforts have positively impacted over 4 million learners across the country.



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## PAPER ABSTRACTS

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#### 100 Accessibility, credibility and accountability through digital assessments

A Comparison of Implementing the Competencies Compound Inventory for the 21st Century: From South Africa to Brazil

Nathan Dale Roberson, Thaine Pereira & Michaela Horvathova Nathan@BeyondEducation.tech

21st Century Competencies allows us to face our ever-changing world. Using the "Four-Dimensional" model by the Centre for Curriculum Redesign (CCR), Beyond Education (BE) developed the English-version of the Compound Competency Index for 21st Century (CCI-21) to measure 12 domains of social-emotional learning (SEL) through a network of South African schools. The CCI-21 advances new measures of educational outcomes by focusing on the measurement of Skills (creativity, collaboration, communication, and critical thinking); Character (courage, leadership, curiosity, resilience, ethics, and mindfulness); and Meta-learning (meta-cognition and growth mindset). The psychometric properties of the CCI have previously been established and provide a base to measure competencies aligned with CCR; which is the theoretical framework that informed the creation of South Africa's DBE's Competency Framework. BE measured SEL skills with 620 English speaking students in South Africa and other countries. Evidence from the CCI-21 suggests it is useful to inform pedagogy and programmatic competency development. In 2023, BE expanded to include 100,000 Portuguese speaking students in roughly 1000 schools. In 2024, BE again partnered with students in South Africa. This paper has three purposes: 1) To present the psychometric evidence of the Portuguese CCI-21; 2) To compare the Portuguese and English versions of the CCI-21; and 3) Reflect on the work of BE in South Africa and Brazil and the limits and strengths of the CCI-21 to support multicultural SEL instruction. We use a mixed method approach, comparing quantitative properties of the English and Portuguese scales, and a qualitative comparison of the policy landscapes. The CCI-21 was developed in an international educational setting that promotes universal competencies. This research extends the South African, Englishspeaking sample to our knowledge base in a Brazilian, Portuguese-speaking sample to make international comparisons across SEL dimensions. Results and reflections on BE's experience in South Africa and Brazil have implications on policy and practice when thinking about large-scale educational reform in support of SEL learning. The CCI-21 is aligned with other international frameworks such as the OECD Learning Compass 2030, and addresses policy reforms in the Brazil National Common Curriculum reform and the South African Department of Basic Education framework. Our intervention represents a cross-national intervention to measure 21st Century Competencies.

**Keywords:** 21st Century Competencies, SEL assessment; non-traditional learning, Digital assessment



# 103 Providing Accessibility and Credibility Through Digital Assessments: The UTME Perspective

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The COVID-19 pandemic brought some gains; one of which is the wave of digitisation that has permeated all spheres of life. Since its outbreak, digital technologies have increasingly altered the educational landscape, with a profound impact on learning, as observed in the digital delivery of assessment. Although, for the Joint Admissions and Matriculation Board (JAMB), the wave of digitisation in assessment delivery began way before the COVID-19 era, specifically in 2013. Thus, for JAMB, there was a changed paradigm from the traditional mode of education which deploys assessment via the Paper-Pencil Test (PPT) to a more critical and objective way of deploying assessment which is through technology. Accordingly, accessibility and credibility are being provided through the deployment of the Unified Tertiary Matriculation Examination (UTME) as digital assessment. JAMB, since having fully migrated from the PPT mode of test deployment to the Computer Based Test (CBT) in 2015, ensures that the issues of accessibility and credibility are adequately catered for. Its well defined inclusivity policy caters for all Persons with Disabilities (PWDs), desirous of tertiary education. They include: the blind, deaf and dumb, albinos and physically challenged, in spite of the limited spaces in the tertiary institutions. The purpose of this paper, therefore, is to highlight the Board's assessment practices that have contributed to providing accessibility and credibility in the deployment of the UTME. The data for the study was extracted from the application and admission statistics of PWDs from 2019-2023, as well as the reports from examination officials in the 2024 UTME across the six geo-political zones. Simple descriptive analysis was adopted as research method. Findings revealed that JAMB's digital assessment – the UTME has greatly widened the door of access to tertiary education in Nigeria by catering to the peculiarities of all candidates, reduced incidences of examination security breaches at the same time, improved score reporting, and invariably improving accessibility and credibility. The implication of this is that, the UTME conducted by JAMB has become more accessible, credible and accountable, as it provides better examination security. Other examination bodies are, thus, encouraged to align their assessments to innovative practices that provide wider access, credibility and accountability.

Keywords: Accessibility; Credibility; Accountability; UTME; JAMB



# Personalised assessments in Wales: A case study of on-screen adaptive formative national assessment

#### Ben Rockliffe & Gemma O'Brien

In Wales, all children aged 7-14 are required to take national on-screen adaptive assessments in reading, procedural numeracy and numerical reasoning each year, which first began operation in 2018. These award-winning calibrated assessments provide comparison with national standards, but their purpose is formative, delivering trusted data to inform teaching, improve learning and support next steps for all students. As such, these assessments represent a case study of a large-scale digitalised assessment that has been operating for five years, from which useful insights can be gleaned for other systems. This paper will outline the nature of these assessments, as well as the process of rolling them out and the challenges faced in both this and live operation. Some of the topics discussed will include:

- Inclusivity and equity of access as a key part of the assessment, both in terms of Welsh and English language versions and accessibility options.
- The innovative way in which the assessments test numerical "problem solving", typically a human-marked subject, while still taking advantage of the adaptive nature of the assessments.
- Our findings from iterations in designing and delivering customized outcome reporting (maximizing formative utility and opportunity for teachers and children) and supporting the teacher community to make use of these assessments to continuously improve student learning for all.
- Our statistical findings from these assessments which provide detailed age- and demographic-specific evidence for policy makers around progress and trends measured across national school populations over time since 2018.
- User feedback and managing the trade-off between accurate measurement and user experience.

The intent being that others considering moves to online, adaptive, on-demand and/or formative assessments can glean new insights and learn from the example of Wales' national assessments.

**Key words:** e-assessment, formative assessment, national assessment, large scale assessment, adaptive testing, accessibility



# 107 Experiences Of Student Nurses In Digital Assessments At Historically Disadvantaged Institutions In South Africa

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The Fourth Industrial Revolution warrants digitalisation in healthcare qualifications such as nursing education to meet the changing demands of clinical and academic environments. Furthermore, the COVID-19 pandemic acted as a catalyst for the inclusion of online learning in nursing education at higher education institutions in South Africa. Notwithstanding the advantages associated with online learning, challenges are a reality especially in historically disadvantaged environments. Issues related to accessibility, credibility and accountability influence not just online learning but also online assessments. Therefore, the objectives of this study are to explore and describe the experiences and opinions of student nurses in taking digital assessments at historically disadvantages institutions in South Africa and provide recommendations to foster academic integrity. The study utilised a qualitative descriptive design. Data was collected via focus groups with undergraduate student nurses at three historically disadvantaged institutions in South Africa. Data was analysed by thematic analysis. The findings of the study revealed the student nurses' challenges of accessibility and technical issues in digital assessments. Issues related to electricity, network and connectivity posed major challenges during online assessments. There was also a reported lack of academic integrity in digital assessments, with the student nurses revealing the extent of copying from the internet, learning materials and each other. However, the student nurses demonstrated awareness of the negative consequences of copying on knowledge acquisition and clinical practice. Hence, this study makes recommendations for fostering academic integrity in student nurses taking digital assessments. Discussions around ethical behaviours in academic activity and nursing practice must be emphasised to create a culture of honesty and integrity in these future healthcare practitioners. Measures to prevent and limit cheating in digital assessments through online proctoring and assessment related methods are strongly recommended. Furthermore, policy must be clear in terms of what constitutes academic dishonesty, protocols to be followed and penalties to be imposed.

**Keywords:** Digital assessments, nursing, experiences, recommendations, academic integrity



# 110 Evaluation of the Electronic Funds Transfer Method for Payment of Examination Administrators

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The Malawi National Examinations Board (MANEB) administers examinations and pays allowances to examination administrators, which has been done through cash. MANEB has adopted the Electronic Funds Transfer (EFT) method in an endeavour to find solutions to challenges faced when making cash payments. Therefore, the purpose of this study was to evaluate the newly adopted EFT system. The EFT was piloted during 2022 national examinations in two districts and in 2023 it was extended to three other districts out of 33 districts. A cross-sectional design that adopted descriptive analysis for quantitative data and thematic analysis for qualitative data was used. 639 respondents were interviewed, which included examinations invigilating teachers, District Education Managers and MANEB officers. The findings showed that 73.3% of the examinations administrators were satisfied with EFT compared to only 22.2% who preferred cash payment method and 4.3% were neutral. Factors like money security, timely payment, transparency and accountability, privacy, reduced favoritism and control of one's expenditure were found to be some of the benefits of the EFT method. Furthermore, the findings revealed that there were some common challenges faced in both cash and EFT method which included administrators not being told about the breakdown for the allowances, some administrators getting late payments, incurring transport costs to get allowances and some administrators being missed on payment list. Ultimately, this research found that stakeholders that are involved in examination administration payments are willing and open to permanently adopting the EFT method. To improve the EFT method, MANEB should deposit examination allowances on time, the DEM's and Police officers should verify names and bank details of the administrators before submitting to MANEB.

**Keywords:** Electronic Funds Transfer, Examinations Allowances, Payment of Examinations Administrators



#### 111 The Need for Plausible Distractors in Multiple Choice Questions

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In assessment, multiple-choice questions (MCQs) are frequently employed to measure students' ability and covers a wide range of topics. Central to the effectiveness of MCQs is the plausibility of the distractors. This paper examined the need for plausible distractors in MCQs, while drawing on logical reasoning and empirical evidence from educational research. Plausible distractors are essential for determining students' level of understanding, encouraging deeper connections with the subject matter, and developing critical thinking skills. Furthermore, plausible distractors improve the validity and reliability of MCQs by discriminating between different levels of understanding and providing valuable diagnostic feedback. Despite concerns about potential disadvantages to some group of examinees, the logical reasoning supporting the inclusion of plausible distractors outweighs these drawbacks. In general, plausible distractors are crucial elements of high-quality assessments, contributing to the creation of fair, reliable, and informative measures of student learning. The study therefore recommended among others that educators should always integrate plausible distractors into assessment design and instructional practices effectively; and test developers should ensure that all distractors are plausible

into assessment design and instructional practices effectively; and test developers should ensure that all distractors are plausible. **Keywords:** educator, multiple choice questions, plausible distractors



#### 200 Assessing and quality assuring no-traditional learning experiences

Assessing and Quality Assuring One-On-One Learning Experiences for Slow Leaners at Waya Life Trust School in Kabwe, Zambia

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This study explored assessment methods and outcomes for slow learners at Waya Trust School in Kabwe District, Zambia, focusing on their educational progress within a one-on-one teaching framework. Slow learners represent a significant population within educational settings, often requiring customized approaches to teaching, assessment, and support to achieve academic success. The school offered supplementary tutoring sessions and enrichment programs to address specific learning challenges and encourage academic growth. Recognizing the multifaceted needs of slow learners, this research evaluated the effectiveness of individualized instruction in enhancing learning outcomes. Using a mixed-methods approach, the study involved a sample of 230 participants, purposefully selected to include 170 slow learners, 30 parents, 20 teachers, and 10 administrators. Formative, project-based learning and portfolio assessments for quantitative data collection from 170 slow learners (120 exclusively for quantitative assessments, 50 for both quantitative and qualitative assessments). Classroom observations, interviews, and focus groups were used to collect qualitative data from 110 participants (50 slow learners, 20 educators, 10 parents, and 30 slow learners who also participated in quantitative data collection). Qualitative data was analyzed through thematic and content analysis to identify key themes and patterns. Quantitative data were analyzed through descriptive statistics and inferential statistics using frequency, percentages, mean, and t-test generated Key themes investigated included the alignment between assessment methods and the learning needs of slow learners, the role of Individualized Education Plans (IEPs) in addressing learning gaps, and the effectiveness of teacher training and professional development initiatives in promoting inclusive teaching practices. The findings highlighted the significance of personalized learning, innovative assessment techniques, and robust quality assurance frameworks in fostering academic excellence and holistic student development. While standardized tests remain a component of evaluation, emphasis placed on formative assessments, project-based learning, and portfolios. These diversified assessment techniques not only measure academic proficiency but also assess critical thinking, creativity, and problem-solving skills. This approach allows educators to provide targeted support and feedback, fostering a culture of reflective learning and equitable learning environments for all students.

**Keywords:** One-on-One Learning, Assessment, Quality Assurance, Waya Trust School, Kabwe District



#### 204 Interrater Reliability of MSCE Marking: The Case of Mathematics

### Fanny Chilunga Malawi National Examinations Board fanchilunga@yahoo.com

The change of grades for students after remark in MSCE examinations results which was noted in 2016, 2017 and 2018 results book prompted an investigation whether there was reliability between raters. The study was interrater reliability of MSCE Mathematics papers I & II for 2019 and 2020 was studied by statistically comparing grades awarded by assistant examiners and supervisor examiners (which were the chief and senior examiners). The study's specific objectives were to investigate the size of correlation coefficients between total scores awarded by assistant examiners and those awarded by supervisor examiners on each of the four papers under study. The study also wanted to investigate if there was any significant difference between the two categories of examiners on each question in the four papers under focus. Random sampling was used which drew 856 Maths I, 2022, 362 Maths I 2023, 150 Maths 2, 2022 and 672 Maths 2, 2023 sample sizes. Data collection was done using the supervision form completed by the chief and senior examiners during marking. The data was tested for normality assumption to determine the appropriate method of comparing means, and results showed that it was nor normally distributed, hence the none-parametric equivalent of paired t-Test the Wilcoxon Test was used. The analysis was done using SPSS to compute colorations and Wilcoxon Test. The results showed very high colorations of total scores between the two groups of examiners, with paper I for both 2019 and 2020 showed highest coloration than paper IIs. Testing for the difference of mean at 95% confidence interval, the Wilcoxon Test proved no significant deference existed. This implied that there was high interrater reliability in the marking of MSCE Mathematics papers I & II in 2022 and 2023.It then concluded that measures employed by MANEB to promote standards of marking worked effectively.

Keywords: Coloration, Raters, Reliability, Scores, Significant-Difference



# Teacher Assessment Proficiency and Learner Achievement in the New Lower Secondary Entrepreneurship Curriculum in Uganda

## Khwaka Mary Cajo Uganda National Examinations Board

Evaluating learner achievement informs educational effectiveness, thereby aiding educators in customizing instructions to learners' diverse needs. This study examined the influence of teacher assessment proficiency on learners' achievement in the New Lower Secondary Entrepreneurship Curriculum (NLSEC) in Uganda. It adopted a cross-sectional research design which facilitated collection of both quantitative and qualitative data. A sample size of 279 was used for data collection. The sample comprised 191 Senior Four learners of Entrepreneurship, 66 teachers of Entrepreneurship and 14 headteachers from 15 schools who were randomly sampled, and two officials each from the Ministry of Education and Sports, National Curriculum Development Centre, Directorate of Education Standards and Uganda National Examinations Board who were purposively sampled. Data was collected using questionnaires, interviews guides, focused group discussion guides and document review checklists. Questionnaires and document review checklists were administered to the teachers, interview guides to the key informants and focused group discussion guide checklists to the learners. Quantitative data was analysed using SPSS software for descriptive statistics, while the qualitative data underwent content analysis using NVivo. Findings from the study indicated that teachers of Entrepreneurship were moderately proficient in test item development. Most teachers use pen and paper tests and observation checklists to assess learners. Scoring of learners' scripts is mainly based on "Relevance, Accuracy, Coherence and Excellence" (RACE) model compared to the analytical /holistic scoring rubric. The commonly used materials are test papers, answer sheets, pens and pencils. These forms of assessment restrict learners to the cognitive domain at the expense of psychomotor, affective and 21st Century skills outcomes. To enhance learner achievement in entrepreneurship competences, responsible agencies should train teachers in test item development, methods of assessment and scoring criteria, provide clear assessment guides and materials to increase levels of teacher assessment proficiency in Uganda's NLSEC.

Keywords: Teacher Assessment Proficiency, Competence-based curriculum, learner achievement and 21st century skills.



# Towards A Framework for the Assessment and Quality Assurance of Non-traditional Learning Experiences

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Non - traditional learning experiences have increasingly gained momentum and prevalence in the education system due to their perceived flexibility, broader outreach, responsiveness and inclusivity. However, the speed at which these alternative learning experiences have been institutionalised is parallel with the growing concerns and antagonism questioning their quality. Accordingly, the negative perceptions surrounding the non-traditional learning experiences challenges policymakers, education specialists, and researchers to ensure that quality is assured through modified quality assurance and assessment frameworks. Literature guides that it is crucial for non-traditional learning experiences to establish effective quality assurance and regulatory systems to counter criticism towards the values and methods of non-traditional learning experiences and remove any bad apples from the basket. The perceived risks of weak assessment and apathetic quality assurance arrangements can be two-fold; firstly, the sluggish and rigid response to develop effective, frameworks for assessing and quality assuring nontraditional learning experiences is counterproductive as it stifles innovation and adaptation to new demands. Secondly, the lack of quality assurance becomes a hindrance to quality improvement thereby compromising the quality of the education system at large. Given these conditions, the questions around assessment and quality assurance of nontraditional learning experiences remain largely unaddressed and therefore cast doubt on the veracity of the quality claimed by these alternative learning experiences. This limitation has made it difficult for role-players to advocate for the uptake and assimilation of these non-traditional learning experiences into the wider education system. Given the above, the study will utilise a qualitative approach to investigate what assessing and quality assuring non-traditional learning experiences will entail through the examination of literature and developing survey questionnaires for participation from the following quality assurance bodies:

- Council on Higher Education (CHE)
- South African Qualifications Authority (SAQA)
- Council for Quality Assurance in General and Further Education and Training (UMALUSI)
- Quality Council for Trades and Occupations (QCTO)
- Sector Education and Training Authorities (SETAs)

Ultimately, it is anticipated that the results of the study will assist in contributing to the body of knowledge of non-traditional learning experiences in South Africa and its standardisation into the quality assurance and assessment regimes.

**Keywords:** Quality assurance, assessment, non-traditional learning experiences, regulatory framework



#### 209 Unconventional Pathways: Nurturing Essential Competencies in Primary Education

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In current educational spaces, where knowledge extends far beyond the traditional boundaries, the Independent Examinations Board (IEB) offers the Grade 6 Core Skills Test as a significant tool in shaping pedagogical practices. Recognising the importance of mastering transversal skills, this instrument reflects a significant paradigm shift in educational evaluation in Southern Africa. The IEB Grade 6 Core Skills Test has been designed to determine whether Grade 6 learners have attained sufficient cognitive academic proficiency to engage with the academic and cognitive demands of the following years. The Core Skills Test is non-curriculum based. The integrated assessment is intentionally designed to gauge a student's ability to identify and effectively apply transversal skills when confronted with unfamiliar problems. It is purposefully relevant, challenging and fair. This paper reflects on the IEB's implementation of the Core Skills Test. Drawing insights from data collected longitudinally across participating schools, the paper highlights the role that this assessment plays in shaping educational practices which inform targeted instruction and intervention strategies to bolster students' competence in these critical skills. In doing so, it illustrates the IEB's commitment to use innovative assessment practices to enhance teaching and learning. This paper further emphasises the transformative power that assessment plays in promoting pedagogical innovation so that our learning and assessment programmes are better equipped to prepare our students for the challenges of the future. It contributes to the discourse on innovative pedagogies, positioning non-traditional learning experiences as drivers of essential competencies, equipping both teachers and students to navigate an ever-changing educational landscape.

**Keywords:** Non-traditional learning experiences, transversal skills, integrated assessment, primary education



# Use of Mean Index Approach to Assess Learning Experiences of Individuals in Group Work Science Practical

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Assessing learning experiences in collaborative tasks and learner centered approaches have been popularized despite their daunting challenges of free riders and score clustering. In the quest to remedying this challenge, the study examined the use of mean index approach to assess learning experiences of individuals in group work science practical activity to generate individual scores. A cross sectional study design blending quantitative and qualitative approaches were employed using test items and focus group discussions. The study was conducted in three High Schools that are implementing learner centered approaches with high learner to facilitator ratio typical of schools in developing countries. The sample comprised 3 teachers and 227 learners. Learners of 15 – 17 years old worked in small groups of 4 – 5 members in carrying out guided practical activities. Group scores from written practical reports, awarded by the facilitator were adjusted by each member's mean index generated from self and peer assessments, and individual reflection. Individuals were rated on collaborative tasks during science process learning experiences and quality of their reflections. The study showed a moderately strong correlation between mean index and group score or individual score in practical activity, and a significant difference between the mean score of same group score and individual adjusted score, and agreement by both learning facilitators and learners that using mean index to adjust individual scores enhanced accountability and deep learning, however there were mixed feelings about objectivity of self-assessment. With improved training in assessment strategies, assessing collaborative learning experiences can be less demanding on both learning facilitators and learners. The study concluded that the use of mean index in adjusting individual scores can reduce assessment load, reduce free riding and suckers effect, reduce scores clustering but requires high proficiency in array of assessment strategies; and learning facilitators should create an environment that fosters accountability and interdependence for effective group work in practical activities.

**Keywords:** mean index, contribution, reflections, free riders



#### 211 Recognition of Prior Learning in Kenya: Status and Prospects

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Recognition of Prior Learning (RPL) is the process used to identify, assess and certify a candidate's knowledge, skills and competencies acquired in non-formal or informal learning settings, such as work place or life experiences. Due to globalisation, the need for inclusion and the need to make skills, competencies and qualifications, visible nationally and globally, the Kenyan government has embraced RPL framework as a national tool for validation and Recognition of Prior uncertificated skills and competencies. Development of the RPL framework was a highly consultative process that took a multisectorial approach. Technical experts and other key stakeholders drawn from different occupational and economic sectors were involved in the development process. Further, the process included drafting, stakeholder validation, approval by parliament and publishing / gazettement of the policy. The process of developing the RPL policy framework was co-funded by development partners and the Government of Kenya. It is hoped that the RPL framework will enhance recognition, mobility and portability of skills and competences. This paper seeks to provide a step wise description of RPL assessment process and the institutional framework requisite for effective development and implementation of RPL policy.

**Keywords:** Competencies, and Training, Lifelong learning, Recognition of Prior Learning



The Implementation of Competence-Based Education in Tanzania: The case of School Competence-Based Assessment for Enabling Pupils to survive in out of school lives

Redefining assessment standards: A framework for examination guidelines in South African basic education

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The dynamic evolution of educational paradigms necessitates robust quality assurance mechanisms to ensure that transformative practices uphold standards of excellence. In South Africa, Umalusi serves as the quality council tasked with establishing curriculum and assessment standards within the General, Further Education, and Training Qualifications Sub-framework (GFETQSF). To enhance its quality assurance practices, Umalusi conducted research aimed at identifying the essential components for examination guidelines, which are key documents for determining assessment standards for the National Senior Certificate (NSC) examinations. This study was necessitated by the diverse perspectives among assessment bodies examining the NSC on what constitutes essential components of examination guidelines. Furthermore, there is limited existing research on frameworks guiding the development of examination guidelines, particularly in basic education. This study aimed to develop a standardized framework specifying the necessary details for NSC examination guidelines. The study was grounded in examination validity with a focus on content and construct validity and adopted a pragmatic paradigm. A qualitative methodology, using document analysis and systematic literature review, was employed to collect data. Purposive sampling was employed, selecting six countries and four subjects for evaluation including Swaziland, Botswana, Namibia, Australia, United Kingdom, and Singapore. The sampled subjects were English First Additional Language (FAL), Accounting, Geography, and Mathematics and were also utilized to pilot the framework. The study identified five main categories of essential components for examination guidelines including general information, subject-specific details, examinable content specifications and weighting, item specifications, and scoring and response specifications. Additionally, piloting of the framework demonstrated its clarity and effectiveness in evaluating NSC examination guidelines. Therefore, this study contributes to the literature on developing examination guidelines, specifically within the basic education system. Further research is recommended to extend this framework to other qualifications within and outside the Umalusi sub-framework.

**Keywords:** Examination guidelines, assessment validity, valid examinations, assessment framework, National Senior Certificate, examination standards, quality assurance



Quality Assurance in the Assessment of Trainees in Bricklaying/Blocklaying and Concreting Trade in Technical, Vocational Education and Training Institutions in Nigeria

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Technical, Vocational Education and Training (TVET) emphasizes skill acquisition for sustainable economic development. Quality assurance in TVET refers to the inputs, processes and outputs of the programmes, expressions of standard by which certain goals can be achieved. It is also required for total development of trainees, which ensures job prospects and the realization of academic goals and objectives. Quality assurance in the assessment of TVET trainees ensures that every learner has equal opportunity to succeed, and its implication for functional technical education cannot be over emphasized. There are various indicators of quality assurance such as: quality teachers, quality instruction, adequacy and utilization of equipment require serious attention. Adequate provision of equipment/facilities is an absolute necessity for Bricklaying/Blocklaying and Concreting (BBC) trade which involves skills that require concrete learning compared to General Education subjects. There are various factors affecting the realization of quality TVET programmes in Nigeria. The main purpose of this study was to ascertain quality assurance in the assessment of TVET programmes. Four research questions guided the study. Survey research design was used. The population comprised all trainers and trainees of vocational institutions in two hundred and twenty (220) National Business and Technical Examinations Board (NABTEB) approved centres that registered for modular trades certificate Examinations (MTCE) in Nigeria. Simple random sampling techniques was employed to select one hundred (100) Modular Trades centres, three hundred (300) Instructors and one thousand (1000) trainees. Two validated instruments were used: Questionnaire for Instructors on Quality Assurance Indicators in Assessment of Modular Trade (QIQAIAM) and Questionnaire for Trainees on Quality Assurance Indicators in Assessment of Modular Trade (QTQAIAM). The reliability coefficients of 0.78 and 0.83 were obtained for (QIQAIAM) and (QTQAIAM) respectively with Cronbach Alpha. Data were analyzed using frequency, percentage, mean and standard deviation. The findings revealed that there were qualified teachers in TVET institutions. The study also revealed that equipment were inadequate to impact skills. It was recommended, among others, that the government should provide modern and adequate equipment in TVET institutions to enhance the teaching and learning of modern skills required for improved quality Education.

**Keywords:** quality assurance indicators, assessment, TVET, trainees and modular centres



Assessing Gender stereotypes in Vocational Education and Training. The case of diploma level engineering Trainees in Uganda.

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The Technical, Vocational Education and Training (TVET) in Uganda has been constantly undergoing reforms most of which emphasize the need for training and assessment that produce graduates that are in line with the demands in the world of world. Reforms have been put in place aimed at addressing gender stereotypes among others, and to ensure that the girl child can access vocation training (TVET Policy 2019). Despite these reforms, available statistics still indicate low numbers of enrolment of female students (UBTEB 2023). This paper argues that despite several reforms and policies in the TVET sector aimed at increased enrolment of the girl child, the training and work place environment factors have not been explored. Therefore, the objectives of the study were:

- To establish the training institutional related factors on enrollment of girls in technical diploma engineering programmes
- To establish the work place environment related factors on enrollment of girls in technical diploma engineering programmes
- To assess gender stereotypes that affect enrolment of the girl child in vocational education

Both qualitative and quantitative data were applied to select participants. Using a structured questionnaire quantitative data was collected, while key informant interviews and focus group interviews were applied for qualitative data. The key findings indicate that the current reform strategies dot not address the training and work related constraints that limit the girl child from joining technical and vocational education. The study recommends the there is need to embrace interventions that aim at providing conducive training and work environment for the girl child. The training environment should be simulated to work place environment and the world of work engaged to embrace girls by removing all forms of gender stereotypes. Such interventions will break the traditional norms that prevent more women from joining Vocational education and training.

Key words: Vocational Education, Gender stereotypes



# The Implementation of the Competence-Based Curriculum in Wakiso District, Uganda: Focus on Vocational Skills

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This study investigated the implementation of a competence-based curriculum with a focus on the Vocational Skills curriculum in Wakiso. The study was limited to twenty (20) Secondary schools. The Explanatory Sequential Design of mixed methods was the design used for the study. The data collection instruments used were interview guides, open-ended questionnaires, observation checklists, and document review checklists. The instruments were administered to 20 heads of schools; 86 Teachers, 123 Parents and 1204 Senior Three to be assessed by the Directorate of Industrial Training. Data was analyzed using SPSS Amos Version 24. The findings revealed that teachers were very articulate in expressing their lack of training on CBC. Teachers' inability to apply competency-based approaches was also confirmed through the lesson plan preparation, as the majority of the teachers were unable to specify the competency- based learning activities. The majority of the schools did not have adequate instructional materials, physical facilities like sports fields, technological devices, and no internet for research purposes. Some schools did not have adequate teaching staff that matched the number of students enrolled. The study recommends that the government of Uganda and the Ministry of Education should provide all needed materials and requirements in order to facilitate the implementation of competency- based learning. The Ministry of Education, and Sports (MoES) and its concerned agencies need to prepare and conduct continuous training programmes in order to provide teachers with the requisite skills for effective the implementation of CBC. The Government should recruit more teachers who are competent in teaching and assessing vocational skills. The parents should work hard in order to support their children in the smooth learning of vocational skills and preparing them for the future life.

**Keywords:** curriculum, vocational skills, implementation, competence



Assessing Learning Outcomes of Competence-Based Education and Training in TVET Institutions in the Field of Spatial Sciences in Uganda

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Realizing that the employment world today lacks graduates that have the right skillset to deliver hands on projects, the Competence Based Education and Training (CBET) system in Uganda was introduced in 2011 under TVET reforms that had been recommended by the Government White Paper on Education, 1992. The aim was to equip learners with applied knowledge, practical skills and professional attitudes required in the industry or the world of Work. The CBET model envisaged changes in pedagogy approaches away from the text book and classroom setting into the workshops where simulations, real-life projects and training with production increase interest, innovation and learning experiences. However, apart from studying examinations pass rates, little data has been collected on the outcomes of the CBET model of learning. This paper evaluates whether learning outcomes of graduates from Institute of Survey and Land Management (ISLM) specializing in spatial sciences have improved since commencement of CBET in 2011. Institute of Survey and Land Management is a public TVET institution with the preserve for all spatial sciences training at Certificate and Diploma level in Uganda. To understand the learning outcomes of the graduates, 182 questionnaires were administered to spatial sciences graduates, employers and trainers. 51 questionnaires were administered to the alumni, 108 to the employers and 23 to the trainers of these graduates. The results revealed that there is a low significance improvement in the competences attained by graduates that trained under the CBET model. This paper proposes that for the CBET model to be more efficient and effective, the trainers themselves require continuous professional development and retooling in order to use more relevant knowledge, skills and teaching methods. The paper also contends that for CBET to be effective in achieving learning outcomes, technology that is relevant to the local training and professional context should be utilized during learning. It is recommended that TVET managers establish geographical information systems to collect, store, update and retrieve labor market information in order to inform new learning methods that are tailored to the unique requirements of different locations and the occupations attracted by those localities.

**Keywords**: Competence-Based Education and Training, Pedagogy, Spatial sciences



# Quo Vadis Knowledge? The Case for Knowledge in South African Vocational Assessment

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South African vocational education is overseen by the Quality Council for Trades and Occupations (QCTO), and this quality council is responsible for the Occupational Qualifications Sub-Framework. One of the central defining features of the Occupational Qualifications in South Africa (of which the Trade qualifications area subset) is the requirements for the 'Knowledge' component of all such qualifications in additional 'Practical' or 'Workplace' components. While the necessity for underpinning knowledge in vocational training and assessment has long been argued for in South Africa the requirement for a 'knowledge' component, particularly for vocational assessments, introduced by the QCTO has been met with some resistance.

This paper follows an argumentative research design conducting a broad literature review on the topic, and arguing for a defined position based on such literature. The central argument of this paper focuses on and strongly argues for the need for the assessment of knowledge in addition to practical skills in vocational assessment. Following the work of Jeanne Gamble this paper briefly retraces the steps taken during the Apartheid era in South Africa to remove 'knowledge' from vocational training as a means to deal with the issue which at the time was termed 'poor whitism'. This paper argues that this removal of 'knowledge' from vocational training and assessment, therefore, was a form of racial/social engineering rather than an intervention aimed at improving vocational training and assessment. Indeed, the global academic conversation at the time up until today has never wavered from the contention that knowledge and the assessment of knowledge in vocational training is vital for its success. With the introduction of the External Integrated Summative Assessments (EISA) by the QCTO as the terminal point of each Occupational Qualification – and the embedded knowledge components within those assessments - the case for the knowledge component of vocational assessment must be solidified in the South African context, both to ensure the strength of such assessments and to ensure that the knowledge component is fully embedded in vocational training in South Africa.

Keywords: Vocational Assessment; Knowledge Assessment; Practical Assessment



#### TiAssessment Methodologies for Recognition of Prior Learning

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Recognition of Prior Learning (RPL) can be defined as 'the practice of reviewing, assessing and acknowledging the knowledge and skills that adults have gained outside the formal education system' (Harris & Wihak, 2014, p. 13). In the South African context, RPL is seen as a critical part of the education system because of its role in lifelong learning and its use as tool for transformation and redress (Aitchison, 2004). However, because RPL involves a process of recognising non-formal and informal learning, the way in which it is assessed needs to make allowances for candidates who are not comfortable with traditional assessment methodologies, and examinations particularly. The South African Qualifications Authority's (SAQA) National Policy and Criteria for the Implementation of RPL, which sets RPL policy for the National Qualifications Framework (NQF) in South Africa, recognises that RPL is multi-contextual and should be "conducted using a variety of specialised learning interventions and/or assessment approaches through which the knowledge, skills and values of a person are made visible, mediated and assessed" (SAQA, 2019, p. 11). Furthermore, assessing candidates' prior learning requires assessment methodologies that "allow for different sources of knowledge and forms of learning to be compared and judged" (SAQA, 2019, p. 11). In order to do this, it is important to consider the types of knowledge and skills that are surfaced by various assessment tools. This paper draws on qualitative research conducted based on a case study of RPL in a workplace context to present a conceptual approach for the assessment of prior learning in vocational education and training, drawing on an understanding of knowledge from the social realist tradition. In order to clearly understand the complexity of the knowledge surfaced in the case study, various analytical lenses were used to 'pull apart' the range of knowledge types and categories of knowledge present in the data. The findings of this research point to the need for assessment methodologies, and resulting assessment instruments, that are designed to surface knowledge forms that may not necessarily be directly aligned to the formal requirements of the qualification that the candidates are being RPLed against.

**Keywords**: Vocational Education and Training, Recognition of Prior Learning, Assessment Methodologies, Knowledge



Are we seeing the signs? Incorporating South African Sign Language Home Language into the National Senior Certificate Examinations: Successes and Challenges

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This paper investigates the implementation of South African Sign Language Home Language (SASL HL) as an examinable subject in the National Senior Certificate (NSC) Examinations in South Africa. With the aim of fostering inclusivity and equity in education, the inclusion of SASL HL represents a significant step towards recognising and accommodating the linguistic diversity of South Africa. This paper will attempt to highlight the successes and challenges encountered in the introduction of SASL HL Examinations by focusing on the following: Successes that include increased visibility and validation of SASL HL as a distinct language, enhanced educational opportunities for Deaf and hard of hearing learners, and the promotion of linguistic and cultural diversity within the educational landscape. Challenges such as curriculum development, resource allocation, assessment standardisation and teacher training. The importance of ongoing collaboration between stakeholders, targeted support mechanisms, and continuous evaluation to ensure the effective implementation and sustainability of SASL HL examinations within the NSC Examinations. Ultimately, this paper contributes to the discourse on inclusive education and language policy. offering insights into the complexities and implications of integrating Sign Language as a medium of assessment into national examination systems.

**Keywords**: South African Sign Language Home Language, inclusive education, linguistic diversity, deaf education, educational policies



#### 226 Challenge of Learners Missing School Based Assessment Scores; A Kenya Context

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Accountability is a key component in educational assessment and it should be exercised at all levels, starting from the learner up to the level of policy makers because failure to do so will compromise the quality of assessment. This study aimed at establishing the extent to which learners, teachers, parents, and school administrations ensure that school-based assessment (SBA) scores are available and validated before submission to the national assessment body, KNEC. The objectives of this study were to: find out the proportion of learners who transit to the next grade without SBA scores, establish if the missing scores were as a result of learners not taking the SBA or not; establish the implication of a learner missing SBA score and recommend a way forward for learners who do not present SBA scores. The study used an embedded research design. The sampling frame for the study consisted of all learners currently enrolled in grade 4, 5 and 7 and were missing SBA scores, segregated by county per learning area (subject) in both the age based and stage based pathways. There was purposive sampling of Education officials where more than 1,000 learners were missing scores. They were presented with an online questionnaire to fill. Head teachers of identified schools where learners were missing scores in more than 50% of the subjects were also presented with an online questionnaire. Datasets were presented in MS excel and analysed using Stata and summary of findings were generated and presented in tables and charts.

The study established that: over 15% of learners transitioned to the next grade without SBA scores from the previous grade; most the learners with the missing SBA scores actually had scores but the teachers had failed to upload them either as a result of ignorance, poor internet connectivity, lack of basic ICT skills, or lack ICT infrastructure. As a result, the missing scores misreport abilities of a learner. The study recommends regular system prompts on missing scores; basic ICT training for teachers; monitoring and evaluation of ICT systems, transition strictly for those with all SBA scores and supplementary SBA for genuine cases.

**Keywords:** SBA, Learning Area, Age Based Pathway, Stage Based Pathway, Missing score



#### 300 Ensuring assessment data security and maintaining ethical standards

Digitalization of Continuous Assessment Scores (CASS) at WASSCE: Quest for Credible Data at WAEC

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Education is the bedrock upon which the development of any nation depends. It is what makes an individual to be self-reliant and able to contribute their quotas to the growth and development of their family, community, nation and the world at large. The Nigeria National Policy on Education state the specific goals of education to includes ensuring and sustaining unfettered access and equity to education for the total development of the individual; ensuring quality education delivery at all level; promotion of functional education for skill acquisition, job creation and poverty reduction among others. The Senior Secondary School which is the gateway to higher institution and the world of work runs for 3 years and the result of each year is submitted as Continuous Assessment (CASS) for inclusion into the final or terminal examination being conducted by public examining bodies in Nigeria. The West African Examinations Council has grown technologically over the years and has develop a home-grown, easy-to-use, user-friendly software called WAEC CASS Offline used by schools in uploading the continuous assessment scores into the database named "Online Continuous Assessment Capture Portal" . This paper discussed with a video practical demonstration of the step-by-step process involved in uploading continuous assessment scores by schools across the country. It further identifies the challenges that might occur during uploading and makes adequate provision for their solutions. Furthermore, recommendations were made.

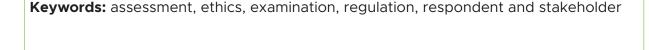
Keywords: Continuous Assessment, Examinations, WAEC, Scores



Knowledge, Attitude and Compliance to Public Examination Ethics by Assessment Stakeholders in Edo State of Nigeria

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Examination Ethics are rules, regulations, expectations, standards, codes of conduct and moral principles governing the conduct of assessment system in educational sector, the knowledge of these codes is a pre-requisite to compliance, which vary from stakeholders to stakeholders, it is expected to be fair, transparent and unbiased. These regulations provide both internal and external control mechanisms to ensure that the behavior of all stakeholders conform to such regulations which will add value to external validity of the result of such public examination. Examiners, supervisors, school managers, examination body staff community representatives need to be well enlightened by examination bodies on the ethics that guide the conduct of their examination, it is in the light of this that well-structured questionnaire were administered to selected two hundred (200) stakeholders in Edo state, proportional sampling was adopted to ensure bias less selection, percentage and graphs were used to analyze the compliance level of stakeholders : the findings revealed that 90 % of the respondents had knowledge of ethics in public examination, 60% agreed with sanctions for offenders, 40% had a dissenting force with some ethic. 50% need more education on public examination ethics.it is expected that examining bodies need to pay more attention to stakeholders enlightenment on ethics of public examination, likewise they should be more strict in terms of sanctions, reward should be given to the best compliance stakeholders and a more ethics that will take care of emerging phenomena need to be rolled out. This paper was structured to detailed pubic examination ethics, expounds the relevance of exam ethics, determine the level of knowledge and compliance to the existing ethics among assessment stakeholders and advanced more ethics for public examinations in Nigeria





#### 305 Securing Paper-based Examinations using Internet of Things

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Paper-based examinations remain a prevalent method of assessment in educational institutions worldwide, including Zambia. However, ensuring the security and integrity of these examinations poses significant challenges, including the risk of cheating, leakage of examination content, and breaches of confidentiality. One way to reduce fraud in paper based assessments is to secure the examination papers before and after they have been written. This paper explored the application of the Internet of Things (IoT) to enhance the security of paper-based examinations in Zambia. Using the General Deterrence Theory (GDT) and the Socio-technical systems theory combining with the NIST Security model, the study investigated how the security of paper based examinations can be improved by developing a model that integrates IoT technologies, such as smart cameras, sensors, and communication devices, to monitor and secure the examination environment. Smart cameras were used to capture real-time video footage of the storage rooms to detect and report any suspicious activity. In addition, communication devices enable real-time communication between examination officials and monitoring centers thereby facilitating prompt response to security incidents. Furthermore, the paper discusses the benefits, challenges, and implications of adopting IoT solutions for examination security in Zambia. By harnessing the power of IoT technologies, examining bodies can address longstanding issues related to examination malpractices and ensure fair and transparent assessment processes in their educational system. Overall, the proposed system provides a comprehensive solution to enhance the security of paper-based examinations. By utilizing IoT technology, the system can monitor the examination environment and detect any suspicious activities thereby reducing the risk of paper loss or theft and ensuring the integrity of the examination process in Zambia.

**Keywords:** Internet of Things, Examinations, Fraud, Security, paper-based



## Beyond Forgeries: Enhancing JAMB UTME Security Measures for Transparency and Reliability in Nigeria

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The research critically examines the current security features of the Joint Admissions and Matriculation Board (JAMB) Unified Tertiary Matriculation Examination (UTME) results in Nigeria, highlighting their vulnerabilities and proposing pragmatic solutions to enhance result authentication. The study emphasizes the importance of robust security measures in maintaining the integrity of the examination system, especially in the face of increasing attempts at result manipulation and forgery. While acknowledging the existing security features, including the candidate's photo, watermark, and QR code, the research reveals significant weaknesses, such as the absence of advanced security elements and the limited functionality of the QR code verification system. A sequential exploratory mixed method design was adopted for the study. Both primary and secondary sources of data was used in the main method of data collection for this research work. Data obtained was analyzed through the mean and t-test statistic. The study adopts Social Control Theory and Institutional Theory, the paper analyzes the underlying factors contributing to exam fraud and the limitations of existing security measures. It argues that a multifaceted approach is necessary to address the complex nature of forgeries, incorporating technological innovations, institutional reforms, and stakeholder collaborations. The study concludes that, to address these challenges, the study advocates for a comprehensive approach, recommending measures such as exclusive issuance of result slips by the Joint Admission and Matriculation Board (JAMB), real-time third-party authentication systems, and accessible lists of top scorers. The proposed solutions aim to streamline the verification process, boost public trust in JAMB's operations, and generate additional revenue for the examination board. The research underscores the necessity of continuous improvement and adaptation in security measures to ensure the credibility and reliability of UTME results.

**Keywords:** JAMB, Reliability, Result Authentication, Result Forgery, Security, UTME, UTME Result



Investigating the Role of Technology in Facilitating Multidimensional Assessment in Higher Education in the Western Cape Province.

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This qualitative inquiry extensively examines the intricate role that technology assumes in facilitating comprehensive assessment methodologies within educational settings, placing particular emphasis on the critical aspects of safeguarding assessment data, and maintaining ethical standards. In an epoch marked by rapid technological advancement, educational assessment methodologies increasingly rely on digital tools and platforms to collect, analyze, and interpret data related to student academic performance. While technology offers unprecedented possibilities for enhancing the efficiency and effectiveness of educational assessments, it also raises notable concerns regarding data security and ethical considerations. Adopting a qualitative research framework, this study employs semi-structured interviews to thoroughly investigate the viewpoints and experiences of educators, administrators, and technology experts who are actively engaged in the development, implementation, and evaluation of multifaceted assessment strategies. Leveraging the foundational principles of qualitative inquiry, thematic analysis is utilized to uncover recurrent trends, patterns, and insights regarding the role of technology in assessment methodologies, alongside the obstacles and opportunities associated with ensuring data security and adhering to ethical standards. A key admission emerging from the study revolves around the transformative capacity of technology to broaden the array of assessment methods accessible and accommodate the diverse needs and learning preferences of students. Digital platforms facilitate the seamless integration of various assessment tools, encompassing self-assessment surveys, multimedia projects, and real-time feedback mechanisms. This integration facilitates a more thorough comprehension of student progress and competencies. Nonetheless, despite these advancements, participants express apprehensions regarding the security of assessment data, particularly concerning the potential for data breaches, unauthorized access, and privacy infringements. Safeguarding sensitive information, such as student performance data and personal identifiers, emerges as a paramount concern jointly shared by educators and administrators. Furthermore, the study delves into the intricate ethical dilemmas inherent in employing technology for educational assessment purposes. Participants grapple with issues concerning informed consent, data ownership, and algorithmic bias, emphasizing the need for clear guidelines and protocols to regulate the responsible deployment of assessment technologies. Moreover, the study underscores the importance of fostering a culture marked by transparency, accountability, and ethical reflection within educational institutions, where stakeholders actively engage in critical discourse and decision-making processes regarding assessment methodologies. In conclusion, this research deepens our understanding of the complex interplay between technology, assessment, and ethics in educational contexts. By elucidating both the opportunities and challenges associated with the utilization of technology for multifaceted assessment, the study informs policy discussions, professional development initiatives, and research endeavors aimed at enhancing data security and ethical integrity in educational assessment practices. Ultimately, it advocates for a balanced approach that leverages the potential of technology while safeguarding the rights and well-being of students and stakeholders.

**Keywords:** Technology, assessment, ethics, data security, safeguarding, credibility, transformative capacity, multifaceted strategies.



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The National Examinations Council of Nigeria (NECO) and the Transition to Digital Assessment in High-Stakes Public Examinations: A Quantitative Exploration

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The study investigated the National Examinations Council's (NECO) perspective on transitioning from traditional paper-based assessments to digital assessments for high-stakes public examinations. High-stakes public examinations in Nigeria are an essential entryway for students' educational advancement and opportunities for employment. The National Examinations Council of Nigeria (NECO) is a critical examining body in charge of conducting these exams in Nigeria. Historically, NECO depended on paper-based examinations, but the potential benefits of digital assessments are gaining traction. The researchers used a stratified random sampling method to obtain a sample of 853 from a population of 3644 NECO staff from all 37 NECO State offices and headquarters in Nigeria. A quantitative approach was employed, utilizing a researchers-developed survey instrument titled the "NECO Digital Assessment Readiness Survey" (NDARS). The NDARS was Likert 5-scale questions used for data collection to assess NECO staff perceptions of motivation, attitudes, knowledge, readiness and perceived challenges and opportunities for the transition to digital assessments. Descriptive statistics such as mean, media and standard deviation were used to analyse the data. Inferential statistics, such as onesample t-test, Mann-Whitney U test and Pearson correlation were used to investigate the relationships between variables like experience with digital technology, concerns, supports and attitudes regarding digital assessment implementation. Findings revealed potential benefits of digital assessments, such as increased efficiency, enhanced exam security, and potential workload reduction. However, concerns regarding infrastructure limitations, digital literacy needs, and potential security risks were identified. Based on the findings, recommendations included strategies for addressing the digital concern within NECO, providing targeted training and support for staff, developing a comprehensive digital assessment implementation plan that prioritizes security and equity, and considering a pilot program to facilitate a controlled transition. A successful digital assessment transition requires understanding staff perceptions and potential challenges. The findings could drive NECO capacity building and policy decisions to promote secure, efficient, and effective high-stakes public examinations in Nigeria.

**Keywords:** NECO, digital assessment, high-stakes, public examinations, transition, paper-based



#### The Need for Plausible Distractors in Multiple Choice Questions

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In assessment, multiple-choice questions (MCQs) are frequently employed to measure students' ability and covers a wide range of topics. Central to the effectiveness of MCQs is the plausibility of the distractors. This paper examined the need for plausible distractors in MCQs, while drawing on logical reasoning and empirical evidence from educational research. Plausible distractors are essential for determining students' level of understanding, encouraging deeper connections with the subject matter, and developing critical thinking skills. Furthermore, plausible distractors improve the validity and reliability of MCQs by discriminating between different levels of understanding and providing valuable diagnostic feedback. Despite concerns about potential disadvantages to some group of examinees, the logical reasoning supporting the inclusion of plausible distractors outweighs these drawbacks. In general, plausible distractors are crucial elements of high-quality assessments, contributing to the creation of fair, reliable, and informative measures of student learning. The study therefore recommended among others that educators should always integrate plausible distractors into assessment design and instructional practices effectively; and test developers should ensure that all distractors are plausible.

Keywords: educator, multiple choice questions, plausible distractors



### Examinations Malpractice and the Administered Penalties -Evidence from Uganda Business and Technical Examinations Board (UBTEB)

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Examinations are instruments used for selection, placement, certification and promotion; making them a high stakes exercise. This study was conducted to get a deeper understanding of the causes of examinations malpractice and the appropriateness of penalties administered by UBTEB. The overall objective of the study was to examine stakeholders' views on the causes of examinations malpractices, the penalties administered and assess the appropriateness of the penalties. Specific objectives included; (i) To determine the causes of examinations malpractice. (ii) To assess whether teachers' working conditions proliferate examinations malpractice, (iii) To examine whether examinations environment and corrupt tendencies fuel examination malpractice and (iv) To assess the appropriateness of penalties administered. The study adopted both qualitative and quantitative approaches. Purposive sampling and stratified random sampling were applied to determine the sample size. Qualitative data was collected through key informant interviews and focus group discussions to triangulate the data sources while quantitative data was collected through document-analysis and questionnaires. The quantitative data was analyzed using importance performance analysis while qualitative data was analyzed by themes using open coding, axial, and selective coding processes. The results revealed that the most important causes of examinations malpractices were insufficient preparations for examinations (46.9%), desire to pass examinations at all costs (43.8%), failure to balance work and school (41%) and Lack of ethical standards (42%). The results further revealed that inadequacy of examination facilities & crowded examination halls and failure to complete the syllabus cause examination malpractice. Stakeholders unanimously agreed that the existing penalties either be maintained or enact harsher penalties. The study recommends that principals should supervise and ensure that the syllabi is completed in time plus recruitment of ethical and competent supervisors. Also, each institution should set examination monitoring committee and UBTEB should lobby and advocate for legislation as a measure to control examination malpractice.

**Keywords**: examinations, malpractice, penalties, rules and regulations.



## Randomisation of Test items in an Occupational Qualification assessment instrument as a function of exam integrity and security

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Examinations are one of the most widely used methods for student assessment. One major drawback of conducting examinations is the students' potential to engage in cheating, which can compromise the integrity of the examinations and thereof undermine the reliability and validity of the assessment data. Academic dishonesty commonly known as cheating or academic malpractice is a growing problem globally. Consequently, there exists a multitude of cutting-edge technologies specifically developed to protect assessment instruments and proctoring during examinations. This study examines the randomisation of items in the External Integrated Summative Assessments (EISA) offered in Occupational qualifications in South Africa. The purpose is to ensure that for security purposes, no two assessments are identical. The EISA is a single national assessment that leads to the awarding of an occupational qualification. The primary objective of this exploration is to create several versions of the examinations to reduce instances of cheating and ensure the accuracy of examination outcomes. Hence, analysing and understanding the technical methods of generating multiple variations of an assessment instrument through scrambling items lead to discovering a simpler and more efficient way for randomising items in the examination by using Microsoft Excel and R software. Microsoft Excel is user-friendly and can be readily accessed on any computer while the R software is free license software.

**Keywords:** assessment instrument, cheating, integrity, items, randomisation, security



#### 400 Partnership strategies for enhancing learning outcomes and accessibility

The Effectiveness of WhatsApp E-Learning During and Post- Covid-19 Pandemic: A Case of English Language at Lesotho Secondary Education

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To curb the spread of COVID-19, Lesotho like other countries resorted to lockdown to restrict people's movements and ensure social distancing. Schools like other public places were, therefore, closed as they are regarded as super spreaders of COVID-19. To ensure that teaching, learning and assessment continue, UNICEF Lesotho in collaboration with the Ministry of Education and Training offered teaching programmes for both primary and post-primary schools over the national television and radio stations. However, this effort appeared inadequate as some learners and teachers complained that the programmes do not allow full participation. A number of schools then resorted to whatsApp e-learning as they claim that it allows for more interaction. Nonetheless, it still remained unknown as to how effective whatsApp e-learning is in the context of Lesotho where there is unreliable internet connectivity and power supply. This study, therefore, explored the effectiveness of whatsApp e-learning, the possible challenges and pedagogical implications of such challenges in the teaching, learning and assessment of English Language at Lesotho General Certificate of Secondary Education. Learners at this level are expected to pass English Language as it is regarded as the entry requirement for tertiary education, thus, calling for more effort to improve its performance. Using Activity Theory of learning, the study adopted a qualitative research approach with questionnaires and individual interviews as data generating tools for both learners and teachers. The findings, among others, revealed that WhatsApp e-learning enhances learners' productive skills and facilitates teaching, learning and assessment. However, lack of instruments was presented as a serious challenge that needs proper planning strategies.

**Keywords:** WhatsApp e-learning, COVID-19, English Language, Lesotho Secondary Education, theory of learning, effectiveness, challenges and opportunities.



## 401 Guidance and Counseling: A Perceived Missing Link Among Learners With Visual Impairments in Secondary Schools in Uganda

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The main study objective was to find out why guidance and counselling is not a selling point for learners with visual impairments in secondary schools in Uganda. This missing link inadvertently impacted on retention rates for young people with visual impairments within the education system, hindering their academic progress, transition to work, and not offering an enabling environment for career success. The study employed a cross-sectional survey design. Data used for analysis were collected from 20 teachers and school administrators in 10 secondary schools using a structured key informant interview tool, 50 parents using a survey questionnaire by means of Open Data Kit (ODK) software, and 39 learners with visual impairments that had sat for the 2022 Ordinary Level examinations (in one special secondary school and 9 inclusive secondary schools), using the Focus Group Discussions (FGDs) guide. The study results revealed ignorance, lack of background knowledge and exposure about SNE and negative attitudes as the significant possible causes for lack of guidance and counselling in schools among visually impaired learners. As a result of cultural influences (beliefs) and negative attitudes, parents tend to exhibit little interest in the education of learners with visual impairment, and thus preventing many of them from enrolling into pre-vocational trainings after sitting national exams. These findings are consistent with earlier research findings on the causes for the lack of guidance and counselling in schools. The study recommends engaging teachers and learners with visual impairments in regular in-class and off-class meetings, field attachments and mentorships and the involvement of multi-disciplinary teams to create conducive school learning environments for learners with visual impairments. Further research needs to be conducted on management of guidance and counselling in secondary schools having learners with visual impairments.

Keywords: Guidance and Counselling, Visual Impairment



403 Exploring robust, developmental approaches to quality assurance of school- leaving assessments in an international environment

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In a rapidly expanding world where education is becoming increasingly internationalised, ensuring the validity, reliability, and fairness of school leaving assessments is crucial for fostering educational equity and promoting access to tertiary education. However, the contextual relevance of assessment is often not prioritised, resulting in questions about the fairness and quality of examinations, equity of education and related social justice issues locally. Accordingly, this paper aimed to explore the role of external quality assurance and collaborative partnership opportunities and the possible impact on addressing contextualisation of quality assurance needs for Africa's diverse educational systems in a global world. More specifically, the paper explored i) how external quality assurance is implemented in different national education systems; ii) how collaborative partnerships can address quality assurance needs for Africa's diverse educational systems and iii) what approaches and type of quality assurance is needed to guarantee contextual relevance of school leaving assessments offered internationally. We found that many countries have quality assurance processes in place as part of their qualification frameworks, but may not geared towards the external quality assurance, recognition and accreditation of international qualifications and associated examinations. Consequently, quality assurance functions are often performed by the assessment bodies themselves, even when in partnership with national governments. Nations may therefore need to adapt their national governance systems to accommodate the growth of international education offerings, or alternatively establish separate governance arrangements to ensure contextual relevance. Upon reflection of the critical role of external quality assurance in ensuring the validity, reliability, and fairness of school leaving assessments, we argue that by engaging in collaborative partnerships to address the contextual nuances of educational systems and how they are governed, we can enhance the quality and contextual relevance of assessments while promoting educational equity, social justice and needs in the local context, including access to tertiary education. Furthermore, developmental approaches to external quality assurance may provide the platform to highlight and critically evaluate the contextualisation of education and assessments. Important goals of quality assurance include evaluating the alignment of assessments with the educational goals and values of the local context, cultural norms, linguistic diversity, and socioeconomic backgrounds of students. By incorporating these considerations into the assessment process, external quality assurance helps to mitigate biases, promote inclusivity, and enhance the overall quality and relevance of school leaving assessments.

Keywords: Quality Assurance, school-leaving assessments, collaborative partnerships, access to tertiary education, international education



### Technology equipment donation for teaching French as a foreign language in Lesotho secondary schools

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Partnership in education proves to be an effective strategy for improving basic education in most African countries. Lesotho has seen positive educational results from many collaborations with partners such as UNESCO, UNDP, UNICEF and World Bank. This study interrogates a long-standing partnership between the Lesotho Ministry of Education and Training and Ministry of Education in France, whose beneficiaries are French teachers and learners in Lesotho secondary schools. The cooperation supports the teaching and assessment of French in secondary schools by capacitating the teachers and providing literacy materials. Recently, the Ministry of Education in France through its cultural service of the French Embassy, donated technological devices to schools to enhance learning outcomes and access to high quality instruction and assessment. The study aimed to find out the extent to which the technical materials improve learner outcomes and teacher effectiveness in teaching French as a Foreign Language, as well as their usability challenges. A qualitative approach was chosen for data collection in this study, where French teachers were interviewed. Data interpretation was done by way of qualitative analysis. The findings present positive effects of this type of partnership towards the teaching and assessment of French. However, there are also negative elements due to lack of technical skills in teachers and inappropriate devices in certain schools. Monitoring and evaluation of the project is recommended to identify areas of technical support and ensure sustainable use of the devices.

**Keywords:** Technology, Foreign language, partnership, donation, access



The Role of Partnerships on Academic Performance of Students in A 'Level Examinations by UNEB. A case of Kamuli district in Uganda
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The study examined the role of partnerships on academic performance of students in A 'level UNEB exams, a case of Kamuli district in Uganda. The study was guided by three research objectives which focused on the influence of joint exam: preparation, administration and assessment on the academic performance of students in A 'level UNEB exams in Kamuli district in Uganda. Cross-sectional survey design was used, the study population included 277 teachers and 55 head teachers. Questionnaires and interview guides were used in data collection and data analyzed to obtain inferential statistics. The findings revealed a positive significant relationship between joint exam: preparation, administration and assessment and the academic performance of students in A 'level UNEB exams in Kamuli district. The respondents agreed that content in joint examinations comprehensively aligns with the curriculum (mean 3.78). This thoroughly prepares students for the rigors of the final UNEB examinations. The existence of clear guidelines and effective supervision provides a standardized framework that maintains consistency and fairness (mean 3.82) contributing to a credible process. However, selection of the team that marks exams from all schools is not fair (mean 2.12) although competent examiners are always selected (mean 3.91). In conclusion, joint exam content is perceived to be in sync with the curriculum, follows clear guidelines, and utilizes competent professionals to guide the process. The study recommended that partnerships should endeavor to incorporate perceived best practices from best-performing schools, prioritize inclusive approaches in selecting assessors and adopt learner-centered approach at A'level.

**Keywords:** partnerships, joint exams, joint exam preparations, joint exam administration, joint exam assessment and academic performance



### 408 Mapping Geospatial Literacy: A Partnership Approach to Integrate GIS in the FET Geography Curriculum

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Geographic Information Systems (GIS) forms an integral part of the South African Geography curriculum in the Further Education and Training Phase as it plays a pivotal role in nurturing critical thinking, authentic data utilisation, and community connections among learners. However, despite this emphasis, the intricate nature and technological demands of GIS pose challenges for comprehensive instruction and assessment in the classroom. This paper explores collaborative initiatives undertaken by the Independent Examinations Board (IEB) in partnership with key stakeholders possessing the requisite knowledge and skills for effective GIS integration in high school Geography. Leveraging the IEB's expertise in assessment, the paper explores the conceptualisation and implementation of the Geospatial Data Science Task designed to encourage GIS teaching in high school classrooms. In addition, the paper highlights the alignment of this task with the IEB's strategic mission to advance quality teaching and learning through the creation, delivery, and promotion of innovative and relevant assessments. Through reflective analysis, the paper addresses challenges encountered during task completion and investigates pathways to enhance this assessment product in future iterations. This collaborative partnership model, combining educational expertise with stakeholder engagement, not only demonstrates a successful strategy for overcoming GIS instructional challenges, but also contributes to the broader goal of advancing learning outcomes and accessibility in high school Geography education.

**Keywords**: Partnerships, Geography, Geographic Information Systems (GIS), Accessibility



## 410 Exploring The Impact of Partnership Strategies In Enhancing Learning Outcomes In Maseru Secondary Schools

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In the pursuit of enhancing learning outcomes in the field of education, the collaborative initiatives organised by different departments in the education system have currently surfaced as pivotal elements. Collaboration across diverse departments and units in educational establishments is gradually regarded as critical for meeting learners' multifaceted requirements and creating a conducive learning environment. Martinez et al. (2022) explored the role of collaborations between curriculum development units and assessment departments in strengthening instructional and assessment methods resulting in better learning results. The synergy between curriculum development, assessment and school inspection in an education setting is imperative. The Collective initiatives between these processes can render comprehensive approaches in alignment with learners' needs, synchronized curriculum with learning objectives, and delivering tailored support systems. However, research indicates challenges that persist in promoting effective interdepartmental partnerships. Communication barriers, resource distribution, and prioritising needs in teaching and learning are the concern. Overcoming these problems demands proactive efforts to develop trust, adopting a culture of collaboration, and creating clear communication systems among stakeholders. Mundy and Dryden-Peterson (2010). This paper aims at determining the impact of interdepartmental partnership strategies between Curriculum Developers, Assessment Officers, and School Inspectors in enhancing Learning Outcomes in Maseru Secondary Schools. Informed by recent research, this paper goes further to highlight challenges and proposing recommendations for effective collaborations on leveraging consolidated interdepartmental partnerships to promote educational quality and enhance Learning Outcomes. Drawing from an extensive literature review, research questions were formulated to explore the effectiveness of collaboration in enhancing Learning Outcomes. Through a mixed methods approach of questionnaires and interviews, data was collected and analysed to uncover insights into the role of partnership strategies in enhancing learning outcomes. Findings indicate that although collaborative efforts exist to some extent, their positive influence on curriculum alignment, effective assessment and instructional practices is insufficient. The paper proposes recommendations to foster effective Partnership Strategies among stakeholders including establishing clear communication channels and regular meetings between departments, creating shared goals and objectives.

**Keywords:** Partnership Strategies, Enhancing, Learning Outcomes



### Leveraging Partnerships for Educator Training and Support in Addressing Diverse Learning Needs

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In today's increasingly diverse educational landscape, the ability of educators to address the unique needs of every learner is paramount. This paper will explore the critical role of partnerships in providing ongoing training and support for educators to effectively meet the diverse learning needs of their students. Partnerships between educational institutions, government agencies, non-profit organizations, and industry stakeholders offer a multifaceted approach to educator development. Through collaborative efforts, educators interact with a rich array of resources, expertise, and innovative strategies tailored to meet the diverse needs of their classrooms. These partnerships facilitate the design and implementation of professional development programs that are responsive to the evolving needs of educators. By leveraging the collective knowledge and experience of diverse stakeholders, these programs can offer targeted training in areas such as inclusive teaching practices, cultural competence, differentiated instruction, and the use of assistive technologies. Moreover, partnerships enable educators to engage in ongoing learning communities, where they can collaborate with peers, share best practices, and reflect on their teaching approaches. This collaborative learning environment fosters a culture of continuous improvement, where educators are empowered to refine their skills and adapt their practices to meet the changing needs of their students. Importantly, partnerships also play a crucial role in advocating for supportive policies and funding mechanisms to sustain educator training and support initiatives. By mobilizing collective resources and expertise, stakeholders can work together to influence policy decisions that prioritize investments in educator development as a cornerstone of educational equity and excellence. The paper therefore recommends that, partnerships offer a powerful mechanism for providing ongoing training and support for educators to enhance their ability to address diverse learning needs effectively. By harnessing the strengths of multiple stakeholders and fostering collaborative learning communities, these partnerships have the potential to transform teaching practices and improve outcomes for all learners.

**Keywords**; educators, partnerships, learning, stakeholders, leveraging



## Inequity in Education Outcomes and Accessibility of Learners with Disability in Uganda

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Uganda National Examination Board's reports on learners with disability show that deaf students perform less well compared to those with other disabilities, at primary, lower, and advanced secondary examinations. This study tracked 400 learners with disabilities who sat the Primary Leaving Examination in 2015, to assess their educational outcomes and the challenges faced in accessing education. Learners were randomly selected from the UNEB database. Contacts were obtained from the schools and used to trace learners. Data were collected using semi-structured interview questionnaires, by special needs educators, to get data on the prevalence of different types of disability, education attainment, and challenges faced by the learners. Pearson chi-square analysis was used to determine the association between the nature of disability and educational outcomes. Logistic regression was used to identify predictors of educational attainment. Educational attainment of learners was as follows: 204 (51%) had dropped out after primary examinations, 141 (35%) continued to lower secondary, and 55 (14%) reached an advanced level of education. The highest dropout rates were among the deaf (45%), followed by those with physical disabilities (31%), intellectual disabilities (15%), and low vision (9%). The most commonly cited Challenges to education accessibility included limited funds (75%), difficulties in reading and writing (45%), parental decisions to terminate studies (24%), and opting for courses due to a lack of inclusiveness (12%). A significant association was found between educational outcomes and the accessibility of education for learners with disabilities. Regression analysis revealed a statistically significant relationship (p < 0.05) between the type of disability and educational outcomes, with the odds ratio indicating that deaf learners were 2.08 times more likely to achieve lower educational levels compared to learners with physical disabilities. Results from high school learners within the study indicated a need for increased awareness of disability issues in schools, training for all teachers in sign language, and provision of bursaries. The study underscores the imperative for curriculum adjustments and assessment modifications to accommodate learners with disabilities, advocating for a concerted effort among global stakeholders to address these educational inequities.

**Keywords:** Education outcomes, education accessibility, learners with disability.



### Strategies for Enhancing Learning Outcomes through Partnerships in South Africa's Education Sector

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In South Africa's evolving education landscape, strategic partnerships and distinctive brand identities play pivotal roles in enhancing learning outcomes and accessibility. However, many educational institutions struggle to differentiate themselves and leverage synergies effectively, hindering their ability to craft appealing strategies for partnerships and brand development. This research paper explores fundamental theories and best practices that educational institutions can adopt to create distinctive brand identities and establish meaningful partnerships, key factors in enhancing learning outcomes and institutional sustainability. The study focuses on three critical areas: articulating an institution's unique identity and vision, developing distinct visual identities and messaging, and implementing and sustaining strategic partnerships. The study emphasizes the importance of clearly conveying institutional strengths and values to priority audiences, enabling educational entities to stand out amidst competition and form valuable collaborations with external stakeholders. The research highlights how these collaborations can create synergies that significantly enhance educational offerings and operational efficiency. Further, the research draws attention to the importance of authentically defining core competencies and differentiators, developing vision and mission statements that communicate strategic priorities, designing cohesive visual identifiers, and constructing marketing messages that resonate with key stakeholders. It argues that the long-term sustainability and competitiveness of educational institutions in South Africa depend substantially on their ability to define a distinct identity and expand capability pipelines through strategic partnerships. This study contributes to the body of knowledge in educational management and marketing, offering actionable recommendations for institutions striving to enhance their impact, relevance, and sustainability in pursuit of quality education for all in South Africa's dynamic educational environment.

**Keywords**: Brand Differentiation, Strategic Partnerships, Educational Synergies, Learning Outcomes, South African Education



#### 417 Industry Involvement in the Assessment of Workplace Learning

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Uganda's Technical Vocational Education and Training (TVET) is run on a dual-training and tripartite assessment system envisaging a demand-driven, employer-led TVET where the industry is a strategic partner in producing the competent technicians they require. The employers consequently provide industrial training opportunities and carry out continuous assessment during the workplace learning as stipulated by Uganda Business and Technical Examinations Board (UBTEB) Examinations Rules and Regulations 2019, Part (viii) - Rules for Assessment of Industrial Training. The industry supervisor awards 50% of the marks because they are in closer monitoring contact with the learner while UBTEB and the training institution verify the authenticity of the assessment during the training period. Exposure to professional practice through workplace learning is therefore considered a key element in training and assessment. In an integrated academic curriculum, exposure to new technologies, equipment and best practices in a given occupation is required at a level appropriate to the industry standards. This enables candidates to self-assess and ascertain whether their theoretical knowledge, practical skills and job requirements are a good match. This paper will examine the Programme Learning Outcomes (PLO) that are contributed by Industrial Training for candidates of National Certificate in Electrical Installation Systems and Maintenance (NCES). The objectives of this study will be to; establish the attributes of Industrial Training Programme Learning Outcomes (PLO); identify the employers and methods used during industrial training assessment from 2019 to 2023. The study will adopt both quantitative and qualitative methods; respondents will include industry supervisors and candidates that successfully completed their industrial training assessment. Purposive sampling will be used to select candidates and industry supervisors to participate in the study. The study will use Focus Group Discussions (FGDs) and administer questionnaires to examine the challenges faced by industries and students during industrial training. Data will be analyzed using STATA 16.0 for descriptive statistics and qualitative data analysis techniques will be employed using thematic analysis.

Keywords: Industrial training, workplace learning, dual-training, tripartite assessment



#### Transitioning to digital assessment in high-stakes examinations

The Learners' Perspectives on Incorporating Digital Assessments in LGCSE Examinations in Lesotho

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Emerging trends in educational assessments advocate for development of digital assessments that could enable learners access examinations remotely. Lessons learnt during the Covid-19 era triggered assessment bodies to rethink their assessment practices. Emerging technologies are also availing opportunities for digital assessments. Assessment bodies could align the assessment practices with the affordances of the emerging technologies to move with times. In Lesotho, Lesotho General Certificate of Secondary Education (LGCSE) is currently offering pen and paper examinations. There are also some practical subjects which have an element of School Based assessment contributing to the final scores. Current trends of results show an increasing number of absenteeism of candidates for several reasons. Examinations Council of Lesotho (ECoL) is embarking on rethinking e-examinations. Learners are important stakeholders in implementation of innovations in classroom practices which can shape the future assessment practices. However, there is limited literature revealing learners' perspectives about innovations conducted relative to assessment. Through the lens of Modified Technology Acceptance Model, the study explores learners' perspectives on incorporation of digital assessments in LGCSE examinations. This will shape ECoL's envisaged shifting to digital assessments to align with the global standards of assessment practices. This mixed method study involved 140 Grade 11 learners sitting LGCSE examination in 2024, in 20 secondary schools from five districts in Lesotho. The learners were both randomly and purposively selected for the study. Data generated using online survey which comprised closed and openended questions were analysed using both descriptive statistics and content analysis. The findings revealed that majority of learners in secondary schools have access to at least computers or smartphones, and they perceive the use of digital assessment in LGCSE as an opportunity for learners in Lesotho to enhance digital skills and improve performance. However, the learners have varying perspectives of readiness of secondary schools in Lesotho for starting e-examinations due to challenges of access to digital resources and digital literacy. The study recommends continuous support of teachers and learners on digital literacy and provision of access to Wi-Fi/data to secondary schools to promote use of computers and smart phones, and further research on use of ICTs in schools' contexts.

**Keywords:** Learners; Perspectives; Digital Assessments; LGCSE examinations; Readiness



Prospects and Challenges of Conducting the West African Senior School Certificate Examination as a Computer-Based Examination in Sierra Leone.

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This study investigated the prospects and challenges of conducting the West African Senior School Certificate Examination (WASSCE) as a Computer-Based Examination (CBE) in Sierra Leone. It identified the anticipated benefits and challenges of conducting WASSCE as CBE and how the anticipated challenges can be addressed. To achieve this, the study was guided by five (5) research questions: The survey research design was adopted. The population comprised all principals, teachers, students, WAEC staff and MBSSE officials in Sierra Leone. Multi-stage, simple random sampling and purposive sampling techniques were used to select 80 principals, 24 teachers, 2,400 students, 20 WAEC staff and 30 MBSSE officials to form the sample. Questionnaire and interview guide were used to solicit information from the sample. All instruments were subjected to peer critiqued and the questionnaires were pilot tested and reliability coefficients obtained using Cronbach's Alpha. Questionnaires for all participants were administered by staff of the Freetown Section of the Research Department. The quantitative data collected were analysed using frequency counts and percentages while the qualitative data were analysed thematically. The findings revealed that many schools are not prepared to write WASSCE as CBE because of the initial high cost of equipping ICT labs with hardware and software, providing power supply, employing ICT teachers to prepare students for the examination. The Council, according to the findings is ready in terms of item banks, item writers and competent personnel but improvement is needed in the acquisition of item banking software and awareness creation to staff and stakeholders. The findings also revealed that conducting WASSCE as CBE saves cost, encourages prompt release of results, and reduce examination malpractice. The study recommended that there should be orientation of staff of the Freetown office, sensitisation of stakeholders and intervention of government and NGOs towards the needs of the schools as wavs of addressing the challenges of conducting WASSCE as CBE. This would influence the change needed to introduce CBE with selected schools within the shortest possible time.

Keywords: Computer-based testing, WAEC, WASSCE



Transitioning to digital assessment: What are the perceived benefits, enablers and barriers in high stakes examinations in Uganda?

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The disruption of education systems by global emergencies and crises such as COVID-19 pandemic not only affects negatively leaning outcomes but also poses challenges for educators and policymakers in managing high-stakes examinations. The study investigated the perceived benefits, enablers, and barriers to greater adoption of digital (onscreen or online) assessment in Uganda. Few studies have been conducted in developing countries on the perceived benefits, barriers, enablers and stakeholders' acceptance of digital-based high stakes examinations with most of them primarily focusing on higher learning institutions. In Uganda, digital assessment has not been widely adopted in teaching, learning and high stakes examinations, despite its potential advantages. The study employed an exploratory descriptive mixed study design through documents review, survey and in-depth interviews. A sample of 768 randomly selected students, 400 teachers, 90 examiners and 12 headteachers in 45 secondary schools, 12 key staff of high-stakes assessment boards and 10 education policy makers participated in the study. Study results show greater stakeholders' acceptance of technology-enhanced assessment though poverty and income disparities in certain regions are more likely to hinder migration to digital assessment. Limited ICT infrastructural provision, frequent power outages and unreliable internet access, lack of digital competences, security management and absence of policies to regulate digital assessment hinder greater adoption of technology in assessment. The study recommends increased internet connectivity investments and public-private partnerships in developing credit schemes for improved access to access to digital devices and softwares; training of stakeholders on digital literacy and assessment alternatives; executing a hybrid approach and gradual transition roadmap starting with low entry papers and modeling of e-examination platforms that use online monitoring to guard against examination malpractices. Development of digital assessment policy guidelines and provision of opportunity to candidates to have exposure to new examination conditions through e-learning guides are also suggested. Ensuring mandatory pre-examination testing sessions and mock examinations, equitable fair access through inclusive designs and appropriate accommodations for special needs candidates, alternative arrangements for candidates with limited access to technology and addressing legal barriers over data privacy and control are equally important.

Keywords: Digital Assessment, High-Stakes Assessments, Benefits, Enablers, Barriers



## Digital Integration in High-Stakes Assessments: Use of CAD in Engineering Graphics and Technology

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In a world that is becoming more digital, there is a need to align assessments to the demands of the Fourth Industrial Revolution (4IR). The use of technology in highstakes assessments forefronts the digital skills that students are required to have. This aligns with the Independent Examinations Board's (IEB) mission to advance quality teaching and learning through the design, delivery, and the promotion of innovative and relevant assessments. This paper explores the implementation of Computer Aided Design (CAD) as a fundamental part of the Engineering Graphics and Technology (EGT) assessment in the IEB's International Senior Certificate (ISC) qualification. CAD is a digital tool used in industry to create drawing and models. The incorporation of this software in EGT facilitates the development of certain critical skills in learners for the world beyond school: the ability to visualise complex drawing concepts, iterate designs, simulate projects, and analyse engineering solutions accurately and precisely. The paper also discusses the challenges encountered with accessibility of the examination content on the various versions of CAD software. The challenges with regard to the printing and scaling of solutions produced by the learners is also discussed, and possible solutions are suggested to ensure that the validity of the assessment is upheld. The paper concludes by considering the way in which integrating the use of technology into high-stakes examinations prompts the education community to reconsider conventional assessment methods and embrace innovative approaches, thus keeping up with the digital world the learners are living in.

**Keywords:** Digital integration, high-stakes assessments, Fourth Industrial Revolution, Engineering Graphics and Technology, Computer Aided Design



### From Manual to Electronic Examiner Management System: The Experience of the Examinations Council of Zambia

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In the digital era, communication and maintenance of ethical standards in educational assessment is important. Zambia has seen an increase in the number of candidates, resulting in the need to increase the number of examiners. The Examinations Council of Zambia developed an Examiner Management System (EMS) aimed at efficient management of Examiners. This paper offers an in-depth analysis of the Examinations Council of Zambia's (ECZ) successful implementation of an electronic database for the management of examiners of School Certificate-level examinations. The paper provides valuable insights and lessons in improving the quality of the care and supervision of examiners through the EMS. The user-friendly interface, data protection measures, and real-time monitoring capabilities are the cornerstone of the EMS innovation. The Examiner Management System (EMS) is a web-based system developed in-house by the ECZ which has proven to be an effective tool in enhancing the reliability and consistency of assessments, by providing an efficient and centralized approach to examiner management. The EMS has provided for improved communication and processing of payments for examiners. In addition, it can be easily updated and amended when necessary, allowing for keeping of up-to-date Examiner details at all times. Moreover, it presents an opportunity for examiners to upskill their ICT competencies. However, the full implementation of the system by the ECZ has faced some challenges, including poor computer literacy levels among some examiners, limited internet connectivity in some parts of the country, and resistance to change by some examiners. To address these issues, the ECZ has developed a comprehensive training program for users at all levels. The training aims at enhancing computer literacy, ensuring that users can operate the EMS system competently.

Keywords: Electronic Examiner Management System, Examiner,



#### Teachers' Perceptions on Adoption of Digitalised Form of the LGCSE Examinations

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Rapid advancing digital technology remarkably re-oriented the landscape in the education fraternity. Covid-19 pandemic further compelled and ushered education practices and processes more into being digitalised, and assessment is not an exception. Trends in assessment suggest digitalised high-stake national examination as a relevant today's advent reality. Preparing for this future may be an economic move as countries across the globe will sooner be compelled to position themselves in this regard. Currently, Lesotho General Certificate of Secondary Education (LGCSE) national examination is offered in a paper-based format, and research literature references on teachers' perceptions on digital assessment and examinations are scarce in the Lesotho context. This sequential explanatory qualitative dominant mixed method study explored the teachers' perceptions on adoption of digitalised form of the LGCSE examinations. The study utelised piloted an online researcher-developed semi-structured questionnaire and the semi-structured interviews to gather data. The link of the questionnaire generated in Google Forms was distributed to the teachers through an email or a WhatsApp to 145 teachers (principals, deputies and Mathematics and science teachers) from the 10 purposively selected schools, two from each of the five districts of Lesotho. Out of the 145 distributed guestionnaires. 69 were received and two of them were unusable giving the study a 46 percent response rate. Ten teachers of the 67 respondents two from each of the five districts were purposively selected based on the location of their school for the interviews. Data descriptively and thematically analysed was interpreted through Unified Theory of Acceptance and Use of Technology (UTAUT) model, an underpinning lens of the study. The findings revealed that teachers limitedly use the digital technology for teaching and assessment, and they attributed this to limited digital knowledge and/or skills for teachers and learners as well as the limited technological facilities. However, they perceive adoption of digital form of the LGCSE examination as an opportunity for its candidates to catch up with technological developments. Whilst the teachers reflected positive perceptions to the digitalised form of the LGCSE examinations, they displayed low readiness perceptions on its adoption. Facilitating conditions and effort expectancy were found the key determinants of teachers' perceptions on actual usage (teachers' usage behaviour) of digital technology in teaching and assessment as well as facilitating conditions as well as on the adoption of digital technology (their behavioural intentions) for the LGCSE examinations for instruction. The findings indicated experiences as the influence factors on the teachers' usage behaviour of digital technology as well as their behavoural intention on its adoption in the LGCSE examination.

**Keywords:** digital technology, digital assessment, digital examinations, LGCSE national examinations, teachers' perceptions.



#### Navigating Tomorrow: The IEB's Al-Enhanced Learning and Assessment Experience

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Collaborative Problem Solving (CPS) is an educational approach that emphasises teamwork, communication, and collective problem-solving skills. The AI-Enhanced Collaborative Problem Solving (AI-CPS) experience aims to enhance students' critical, ethical, and creative thinking by integrating AI with CPS. This paper presents the innovative Al-Enhanced Collaborative Problem Solving (Al-CPS) initiative developed by the Independent Examination Board, which reconceptualises learning and assessment. Focusing on the education, earth, health, and lifestyle sectors, AI-CPS provides students with opportunities to collaborate on solving complex problems, equipping them with essential skills for an evolving world. The paper focuses on the creation and application of the IEB's AI-CPS, which is in line with the IEB's strategic goal of improving educational results through using innovative technologies. Furthermore, the paper discusses the quality assurance of the AI-CPS, underscoring the dynamic nature of formative assessments. The dynamic approach prioritises ongoing feedback and improvement over a fixed endpoint, recognising the fluidity of learning. Quality assurance in this context embraces adaptability and responsiveness to feedback from both students and teachers. These transformative learning and assessment experiences not only serve as evaluative tools but also function as catalysts for continuous growth and development in the educational journey.

**Keywords:** Al – Driven Learning, Collaborative Problem Solving, Quality Assurance, Assessment Experiences, Educational Innovation



## Embracing Digital Transformation: Exploring Electronic Assessment for Visual Arts in High-Stakes Examinations

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In the rapidly evolving landscape of education, the need to reimagine assessment practices is paramount, especially in the context of a global society increasingly characterised by diverse learning dimensions. This paper delves into the transition to digital assessment in high-stakes examinations, with a specific focus on the assessment of Visual Arts practical tasks by the Independent Examinations Board (IEB) in South Africa. With the growth in the number of online schools offering Visual Arts, there arises a pressing need to accommodate diverse modes of learning and assessment, as the physical exhibition of artworks for examination purposes is not always cost-effective or feasible. In response, the IEB has embarked on an investigation into assessing practical work electronically, aiming to leverage digital technologies to ensure equitable access to assessment opportunities for all learners, regardless of their geographical location or schooling modality. The study involves a meticulous process of marking standardisation, wherein a select group of experienced markers participate in live marking sessions. Each marker assesses the practical tasks submitted by traditional schools in real-time, photographing the work they mark. Subsequently, a second marker from the group assigns marks based solely on the photographs, without knowledge of the original mark assigned. This method enables the evaluation of the comparability between marks assigned through traditional inperson marking and those assigned based on digital representations, which will inform future policies around marking practical work submitted by online schools, where in-person marking may not always be feasible. By harnessing the power of digital platforms for moderation and appeals purposes, this model ensures that candidates offering Visual Arts online can be fairly and reliably assessed. The model also enhances the efficiency and transparency of existing assessment processes.

**Keywords:** Visual Arts practical; electronic assessment; comparability



### Reinforcing the quality of assessment in Accounting subject among secondary schools: towards digital assessment

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This paper sought to document the necessity of transitioning from a theoretical assessment to a practical through digital assessment in Accounting subject. It is observed that assessment in Accounting in secondary schools is administered through the traditional method of hand copies and handwriting. This is contrary to the intentions of Accounting to educate learners through information systems and its practical nature. Further, theory assessment does not serve the aim of producing digitally competent learners who will meet the requirements of Accounting professions and the demands in the workplace. This paper is underpinned by Bricolage theory which in the context of education argues that teachers or educationists can reconstruct the existing skills or ideas to create something new. In the context of this study, utilising digital resources such as laptops, tablets, computers and smartphones and existing assessment strategies to create a digital assessment. The study aimed at responding to one research question: how can the quality of assessment be enhanced in Accounting among secondary schools? I adopted a constructivist lens and case study research design to respond to this question. An interview was conducted with three Accounting subject advisors who were sampled using a nonprobability method. Inductive thematic analysis was employed to analyse the data attained. I found that the quality of Accounting assessment among schools can be enhanced through a transition of adopting digital assessment (online assessment) using digital devices and user-friendly platforms. I also find that assessment should be more industry-based. In light of the above finding, I conclude that Accounting assessment should be moved to digital assessment for instance, creating multiple choice questions, open-ended questions, case-based scenarios, e-portfolios, and answer books where learners respond to online designed questions. This study's contribution is to emphasise the importance of transitioning to a digital assessment among secondary schools.

**Keywords:** Quality assessment, accounting, bricolage theory, transition, digital assessment



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Role Of Unified Tertiary Matriculation Examination (UTME) in Promoting Digital Literacy Skills: A Case Study of 2022 UTME Candidates In South-Eastern, Nigeria

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The digitalisation of high-stakes student examinations, such as the Unified Tertiary Matriculation Examination (UTME) offers potential benefits especially as it enables innovative assessment design, which may ultimately allow the assessment of new types of skills, including digital literacy. The purpose of the study was to identify and examine the technology and educational applications used in the UTME and the extent to which these applications have promoted the digital literacy skills of candidates. The study adopted expository research technique. Questionnaire was designed and administered to 1,912 candidates at 32 JAMB accredited CBT centres in the south-east geo-political zone of Nigeria namely, Abia, Anambra, Imo, Ebonyi and Enugu states during the 2022 UTME and Direct Entry (DE) registration exercise using purposive sampling technique. Data obtained was analyzed using t-test. The findings showed a t-calculated that is greater than table value and p value of <0.05, which is statistically significant. We therefore conclude that there is a significant impact of UTME in promoting the digital literacy skills of candidates. The paper recommends the promotion of digital literacy skills of UTME candidates to enable them have sets of abilities required to handle digital devices to perform specific tasks in real world situations.

**Keywords:** Digital literacy skills, UTME, candidates, CBT, educational technologies, internet age.



### Tech-Driven High-Stakes Examinations: Will Digital Exams Deliver on Quality Education?

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While traditional paper-based assessments have limitations in efficiency, security, and data analysis, the full potential of digital assessments in high-stakes examinations remains under-explored. The continued dilemma in assessment is addressing the inadequacies and the ineffectiveness of the traditional exams and mainstream assessment practices. The core challenge lies in ensuring a smooth and equitable transition that leverages the potential of digital assessments while mitigating risks like unequal access to technology and technical glitches, including the integration of Artificial Intelligence (AI) for functionalities like adaptive testing, automated grading, and personalized learning pathways. This research aims to bridge this gap by systematically examining the benefits and challenges associated with transitioning to digital assessments, particularly in the context of achieving Sustainable Development Goal 4 (Quality Education) in the era of Industry 4.0 (4IR) where digital transformation is rapidly re-shaping our global economy and permeating virtually every sector and aspect of daily life. The paper examines how digital assessments can enhance efficiency, security, and data analysis capabilities. It also discusses potential drawbacks, such as ensuring equitable access to technology and mitigating the risks of technical difficulties. Additionally, the paper explores strategies for a smooth and successful transition, including robust infrastructure development, comprehensive training for educators and students, and rigorous security protocols. By critically evaluating the opportunities and challenges of digital assessment in high-stakes examinations, this paper aims to inform policymakers and educators in developing strategies for a successful implementation of digital assessments in high-stakes examinations, as they navigate this evolving landscape capitalizing on the potential of Al for a more effective and individualized assessment experience.

**Keywords:** Al, digital assessments, high-stakes examinations, SDG4, quality education,



### Using Tablets to Improve Teaching and Assessment of Secondary School Learners in Tanzania

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In November 2022 the Tanzania Ministry of Education Science and Technology distributed 293,400 tablets to various educational practioners where, 89,805 were given to secondary school teachers. This study assessed the application of tablets to improve teaching and assessment of secondary school Tanzanian learners including those with special need. The study was a survey design with 400 secondary school teachers who were randomly sampled from each of 400 secondary schools. The teachers responded to questionnaires which were coded and numbers entered into M-Excel for processing. Results obtained were presented in Tables showing absolute numbers and percentages. The study established that, all participant (400) received the tablets. The tablets helped more than three quarters of the teachers (78%) to improve their teaching and assessment through searching for content to use in the classroom (81%), sharing knowledge with other teachers and experts from outside the school (78%), resorting to new pedagogical and assessment strategies for accommodating learners with special needs (57%) and searching for test/exam questions (59%). However, few teachers (17%) have inadequate knowledge and skills in the use of tablets while 12 (3%) face challenge in accessibility of internet due the expenses. The study recommends that teachers should continue to collaborate to help each other to acquire knowledge and skills in the use of tablets. Also, the government need to train the teachers to ensure that they have adequate knowledge and skill in using tablets and access to internet in order to improve teaching and assessment of learners.

**Keywords:** Teachers, learners, tablets, teaching and assessment



#### Leveraging Digital Platforms to Conduct National Assessment Processes

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Sustainable Development Goal (SDG) number 4 focuses on education. Specifically, it aims to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." Within SDG 4, one of the targets (4.4) emphasizes the importance of relevant skills, including technical and vocational skills, for employment, decent jobs, and entrepreneurship, which encompasses the integration of technology in education. In Botswana, the integration of ICT in teaching and learning was articulated through the Education & Training Sector Strategic Plan (ETSSP). This then called for automation of assessment processes. It was further fast tracked by the COVID-19 pandemic, aiming to provide assessment with minimal concessions and deviations. While Botswana Government ensured internet connectivity to all institutions of learning, providing devices and other resources in schools to enable the implementation of e-learning platforms, Botswana Examinations Council (BEC) also augmented and fast tracked the implementation of e-platforms such as e-marking, e-recruitment, and e-authoring. This was an evaluative qualitative study on the use and implementation of e-platforms, gathering perceptions and experiences from those who used the platforms. The study utilised online questionnaires, interviews, and document reviews to gather data. Data analysis was descriptive and used content analysis and thematic descriptions. In the context of e-marking and e-authoring, it was discovered that while it was efficient, not all examiners had internet access, and there was a challenge stemming from a lack of ICT skills. The implementation of e-recruitment for examination personnel and e-authoring of examination papers were found to be cost saving by eliminating expenses related to courier services, printing materials, and compensation of personnel, amounting to approximately P400,000.00 annually. It was recommended that conventional processes and procedures be adapted to align with the requirements of e-platforms to prevent disruptions and redundancies. Additionally, conventional processes should be kept and maintained as contingency plans, where technology fails. Overall, digital assessment offers numerous advantages over traditional assessment methods, including increased efficiency, flexibility, accessibility, and enhanced data analysis capabilities. Parallel running of the digital and conventional assessment plays a significant role in modernising education and fulfilling SDG 4.

**Keywords:** Digital, E-Platforms, Assessment Processes, E-Authoring, E-Recruitment, E-results, E-Material tracking, ICT skills



### Paradigm Shift in High-Stakes Assessments in Nigeria: The West African Examinations Council's (WAEC) Experience

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Educational assessment is a vital tool in learning and forms a basis for which life defining decisions are sometimes taken. It helps to determine the effectiveness of knowledge transmission models and overall impact of instructional learning. With the advent of technology and its introduction to education, computer-based examination (CBE) is fast gaining traction among various stakeholders because it is believed to among others, increase the effectiveness and efficiency of conducting examinations as well as help in curbing examination malpractice. Examination bodies are faced with the option of adopting CBE method over the pen and paper mode as a means of conducting their examinations particularly in high stake examinations. This paper adopted the case-study research method. It described the experiences of the West African Examinations Council in transitioning from paper-based tests to a novel hybrid computer-based test. It examined the processes involved in planning and implementing the computer-based test in which all questions were displayed on the computer screen. But, whereas answers to the multiple-choice questions were supplied on the computer real-time, candidates supplied answers to the essay and test of practical questions in answer booklets given to them. It highlighted various challenges encountered during the planning phase including stakeholder management, infrastructural deficiencies, security considerations, accessibility and usability by candidates and human resource recruitment and training. It focused on the design and administration of the examination during the implementation phase along with its implication on examination malpractices. It discussed the performance of candidates when compared to the pen and paper mode as previously conducted using candidates' data sourced from the Information and Communications Technology Division (ICTD), WAEC. It concluded with recommendations that with proper orientation and adoption of computer-based test in high stake public examinations. the true abilities of candidates would be measured, eliminating widespread examination malpractice, improving the integrity of examinations, and restoring confidence in certificates awarded for performance in such examinations.

**Keywords:** public examination, computer-based examination, stakeholders, challenges, examination malpractice



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Perceptions and Experiences of Candidates and Proctors at the Computer Based West African Senior School Certificate Examination (CB-WASSCE) 2024, in Nigeria.

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Assessment is crucial in the teaching and learning process as it provides evidence that learning has taken place. Different stakeholders in education hold divergent views on the best assessment methodologies to achieve desired assessment outcomes. In a broader educational landscape, Computer-based examinations (CBEs) hold significant importance as a more accessible mode of assessment that enhances security and data driven insights. There are cogent justifications for a shift from paper-based to computer-based examination, these include cost efficiency, flexibility, accessibility, user-friendliness and ease of administration to mention a few. It is on this premise that the West African Examinations Council (WAEC) in February 2024 implemented a novel CBE hybrid design christened CB-WASSCE in which all questions were projected on the computer while answers to the essay questions were supplied in answer booklets. This study investigated the perceptions and experiences of candidates and proctors who took part in the examination. The study adopted the survey research design. The population include all the candidates who sat the 2024 CBWASSCE for private candidates (first series) in Nigeria. A total sample of 1,865 respondents was used comprising of 1,595 candidates and 270 proctors using purposive sampling technique. Two structured questionnaires were administered to the Candidates and Proctors, reliability of the two instruments was tested and yielded Cronbach Alpha coefficients of .88 and .92 respectively. Data were analyzed using descriptive statistics and percentages. Results revealed amongst others that the perception of respondents towards the CB-WASSCE was positive in terms of user friendliness and seamless administration when compared with Paper based tests. It was therefore recommended that CB-WASSCE be sustained and introduced to all other examinations conducted by WAEC.

**Keywords:** CB-WASSCE, candidates, experiences, perceptions, proctors



## 529 Transiting to Digital Assessment in Nigerian Technical Colleges

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Transitioning to digital assessment is a paradigm shift from the traditional paper / pencil to digital assessment. Assessment is an integral part of learning, and therefore constitutes an important component of the learning process. Digitalization of the learning process in the education sector has become a national discourse. As technology continues to advance, the education sector is also adopting more digital options such as e-marking, computerized adaptive testing and online electronic submission. Despite the rapid development of educational technology, there is limited-research regarding processes, barriers, and adaptations around transition from paper-pencil to digital assessment in high-stake examinations. The sudden transition to digital assessment in developing countries potentially involved challenges and benefits that worth investigating. Consequently, this paper aimed at investigating digital assessment transitioning, identifying the challenges associated with it as well as its prospects. To achieve this objective, the study utilized a mixed-method research design, employing quantitative and qualitative data. The population comprised all technical college teachers and students across the country's six geo-political zones. A random sample of 209 teachers and 589 students was selected. Data was collected using two validated instruments: Questionnaire for Teachers on Application of Digital Assessment (QTADA) and Questionnaire for Students on Application of Digital Assessment (QSADA) with Cronbach Alpha reliability coefficients of 0.82 and 0.89 respectively. The quantitative data were analyzed using percentages, mean, standard deviation and t-test statistics while qualitative data were analyzed thematically. The results of the findings revealed that digital assessment was used to a great extent. It also showed that there are challenges of developing needed technological skills, time required to adequately prepare for the assignments, inadequate computers, lack of computer literacy, inadequate funding, intermittent power disruption, poor internet services, among others. The results further revealed that teachers and learners are aware of the importance of feedback; professional development and acquisition of new technological skills. Therefore, the study recommended that there should be adequate funding, provision of smartphones, laptops, uninterrupted internet services, regular in-service training for the teachers, among others, for effective and efficient digital assessment.

**Keywords:** digital assessment, technological skills, professional development, challenges and prospects



Transforming Educational High-Stakes Data Through Openemis Exams: A Namibia Experience

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The Ministry of Education, Arts and Culture (MoEAC) in Namibia is dedicated to providing high-quality, inclusive, and accessible education, aligning with national and international development goals. Acknowledging inefficiencies and high costs in managing high-stakes examination data, the MoEAC initiated a transformative project in 2020 to revamp Namibia's Educational High-Stakes Data. The project, in collaboration with UNICEF Namibia, focuses on leveraging OpenEMIS technology to automate data processes, streamline operations, and minimise errors. Emphasizing inclusive education, the initiative aims to capture diverse learners' data, including those with special educational needs and disabilities. The paper discusses the ongoing project's mixed-methods approach, combining quantitative analysis of cost savings and efficiency gains with qualitative assessments of user satisfaction and system usability. The qualitative data were collected through focus group discussions of the project Steering Committee aided by a user acceptance-testing environment. The quantitative data on cost-effectiveness was obtained from the actual expenditures on all related activities. OpenEMIS implementation is poised to revolutionize the examination data lifecycle, promising significant cost savings, streamlined processes, increased data accuracy, and improved decision-making. The Ministry has recorded significant achievement and cost savings about system maintenance and support services and data collection stationaries. The open-source nature ensures adaptability, aligning with global best practices in educational data management. The initiative not only addresses existing challenges but also aligns with national development objectives and international sustainability goals. Ultimately, adopting OpenEMIS positions Namibia as a leader in ensuring inclusivity in education provision and datadriven decision-making.

Keywords: Accuracy, effectiveness, efficiencies, OpenEMIS, high-stake



### The Use of Digital Platforms in the Administration of NSSC Examinations

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This study explores the utilization of digital platforms in the administration of the Namibia Senior Secondary Certificate (NSSC) examinations, with a particular emphasis on efficiency, effectiveness, impact, and sustainability. Drawing upon multiple theoretical frameworks and concepts, the research investigates the adoption and implementation of digital platforms in NSSC administration processes with a particular focus on the e-release of examination results and online registration of candidates. Through a mixed-methods approach incorporating quantitative and qualitative data collection techniques, the study examines stakeholders' experiences, perceptions, and attitudes regarding the efficiency and effectiveness of digital platforms compared to traditional methods. The participants of the study were selected through a purposive sampling technique. Key factors such as registration processing times, data accuracy, result dissemination speed, stakeholder satisfaction levels, and environmental sustainability are analysed to assess the impact of digital transformation on NSSC examination administration. The majority of stakeholders expressed satisfaction with the speed, resource utilization, and accessibility of digital platforms for both registration and result dissemination processes. The findings of this study provide valuable insights for policymakers, educational administrators, and technology providers seeking to optimize examination administration processes through the

strategic integration of digital platforms.

Keywords: digital platforms, online registrations, e-release of results



# The Behavioural Change of Economics Multiple-Choice Items between Paper-Based and Computer-Based Testing Methods

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The shift of testing, from paper-based method to computer-based method, brings improved security, operational and data access ease, saving of cost, environmental friendliness and power to combat examination malpractice, which reduces the reliability of assessment in defining learning and ability levels. Digitalization of testing is not only a helpful choice but also a solution to most assessment challenges. Sadly, the shift of the testing method failed to consider deviations in item-examinee relationship and decrease in the measurability of some principal learning objectives. This paper investigated the differences in item characteristics between paperbased and computer-based testing methods. Three sets of expertly prepared 30item multiple-choice Economics test paper with different but similar items were standardized using one thousand and twenty-one (1,021) year-2 senior secondary school students at twenty-eight (28) different schools. Two sets of the items, A and B, were tested on two hundred and ninety-eight (298) different but same-category students at six different schools, different times. The test takers were divided into two with similar ability distributions. The third standardized paper, C, was tested on the two groups, using paper-based method on one group (112 test takers) and computerbased method on the other group (105 test takers). The post-test properties of each item for both testing methods were determined and studied. Items identified with significant dissimilar properties were analyzed for structure and construct. The behavior of longer items as well as items with sketches and formulae significantly changed between the two testing methods. It was deduced, therefore, that the evaluation of test takers' ability is very liable to be affected by the testing method and, by extension, the questioning structure of items. It was advised that for smooth transition of testing method, the viability for the assessment of all expected learning outcomes should be ensured. Further investigations are advised on extents of dependence of items structural properties and expected learning outcomes on testing methods.

**Keywords:** High-stakes assessment, paper-based testing, computer-based testing, testing objectives, item difficulty, discrimination index, distractors



Digital Readiness of Eswatini Secondary Schools for Transition to Digital
Assessments Sub-theme: Transitioning to Digital Assessment in High-stakes
Examinations

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The educational landscape is undergoing a significant transformation with the increasing adoption of digital technologies. One prominent area of change is the transition from traditional paper-based assessments to digital platforms. The transition to digital assessments offers numerous advantages including efficiency, data analysis, improved security, reduced administrative burden, cost effectiveness, quicker results release, and flexibility but successful implementation hinges on a school's digital maturity. This study investigated the digital readiness of secondary schools to transition to digital assessments by answering the following research questions: (1) To what extent are secondary schools equipped with the necessary technological infrastructure and resources to support a transition to digital assessments? (2) How well-prepared are teachers and students in terms of their digital skills and teacher's professional development to effectively transition to digital assessments? (3) What level of leadership support exists within the schools to facilitate the transition to digital assessments? The research adopted a mixed-methods approach, combining questionnaires with semi-structured interviews to explore these questions. Questionnaires were administered to teachers to gather data on critical factors influencing digital assessment readiness, including student access to technology, technology skills, teacher training, IT infrastructure, and leadership support. Semistructured interviews with school administrators delved into specific aspects of digital readiness like digital plans, teacher support, partners and sponsors and schools' digital capacity. 16 teachers and 8 administrators were purposively selected from rural and urban schools in the four regions of the country. The key findings of the study reveal that schools currently lack the necessary resources, training and capacitation of teachers and students to fully implement digital assessments. Limited budgets and competing demands were also identified as barriers to leadership support to facilitate digital assessments. To bridge this gap, the study recommends addressing the digital divide, investing in infrastructure and professional development, and ensuring equitable access are crucial steps for a successful transition.

**Keywords:** Digital assessment, digital readiness, technological infrastructure, leadership support, digital divide



Prospects and Challenges of Conducting the West African Senior School Certificate Examination for School Candidates (WASSCE SC) as a Computer-based examination (CBE) by West African Examinations Council in The Gambia.

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This study explored the prospects and challenges of conducting the West African Senior School Certificate Examination (WASSCE) for school candidates as a computer-based examination (CBE) in The Gambia. The population included heads of schools, teachers, 2022 WASSCE candidates, officials from the Ministry of Basic and Secondary Education (MoBSE), and WAEC. Using multi-stage and purposive sampling, 374 participants were selected. Data was gathered via questionnaires and interviews, analyzed through frequency distributions and thematic approaches. Findings indicate a high potential for CBE implementation, offering speed, cost-efficiency, and reduced malpractice. However, inadequate school facilities and lack of preparedness by MoBSE and WAEC were significant barriers. Recommendations include drafting a CBE policy, introducing ICT as a subject, training WAEC staff, creating stakeholder awareness, and piloting CBE in selected schools. This shift towards CBE is vital for modernizing educational assessment in The Gambia.

Keywords: Computer-based examination, Stakeholders, Prospects, WASSCE



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Exploring the evolving role of generative Artificial Intelligence (AI) in automatic item generation to meet the increasing item demands of e-assessment in formative and high-stakes assessments

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In recent years, assessment bodies have observed a surge in student enrollment, coupled with diminishing resources and escalating costs of exam administration. These challenges have led to the emergence of e-assessment as an efficient and costeffective method of assessment in the education sector. As educational institutions shift towards the adoption of e-assessments for high-stake examinations, there are associated challenges that accompany this development. The transition from traditional paper-based examinations to digital formats present both opportunities and challenges for educational systems worldwide. A significant challenge is the need to develop a large number of test items to effectively support e-assessment. Leveraging technological solutions, such as automated item generation (AIG), can help scale up the number of test items required for e-assessment. However, this approach comes with its own set of challenges. This paper investigates the computational techniques of scaling up item development to support e-assessment and facilitating a seamless transition to e-assessments while maintaining quality and fairness of assessment. Through a review of literature, the paper explores the challenge of traditional item writing in transitioning to digital e-assessment platforms. Additionally, the paper examined the use of automated item generation tools that are currently in use and their contribution in assessment practice. The literature has shown that template-based AIG has achieved significant success in many use cases. While template-based AIG has proven more successful than traditional item writing, it still requires subject matter experts to develop the necessary cognitive models and item models. Finally, the potential of generative artificial intelligence (Al) in addressing this problem was examined. Finally, we explored ChatGPT generative Al model in generating test items, with the objective of finding out its capabilities. By using chatGPT, it possible to generate different types of items that are comparable to those created by human authors and this novel development is expected to help assessment providers seeking to navigate the complexities of transitioning to digital high-stakes examinations.

Keywords: Assessment, Test item, Test development, Generative Al, Test bank



### Research and policy for improvement of assessment practices

### 601 Composite Measure of Competitiveness & Relevance of BEC Qualifications

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The Botswana Examinations Council (BEC) needed to evaluate its strategic objectives and ``improve competitiveness and relevance of our qualifications`` was one of them. The council needed advice on its competitive position. The council measured six indicators of performance describing competitiveness and relevance of its qualifications mainly External Customer Satisfaction (ECS), Overall Stakeholder Satisfaction (OSS), Examinations Security for Standardized Examination (ESSE), Examination Standards (ES), Private Schools Market Share (PSMS) and Relevance to Vocational and Tertiary Institutions (RVTI). In order to enhance its competitiveness and relevance, the council needed to study the relationship between these indicators to provide a more rounded assessment of its performance and present a ``bigger picture`` in a way that the public can understand. The study administered a survey questionnaire through which respondents indicated how they perceived the contribution of each indicator to competitiveness and relevance of BEC qualifications, and the extent to which performance of these indicators would improve in the future. To develop a logical, interpretive and substantive composite measure for competitiveness and relevance of BEC qualifications, the study derived weights using regression analysis and numerical iteration procedure. The study derived the weights for OSS, ECS, ESSE, ES, PSMS and RVTI as 0.16, 0.17, 0.18, 0.15, 0.19 and 0.15 respectively. In a broader context these weights suggested that the indicators were almost equally important to competitiveness and relevance of BEC qualifications. These results had important implications in the sense that the extent to which each indicator contributed to the attained competitiveness and relevance depended mostly on how it performed at indicator level. The study substituted performance of each indicator in an equation, CM (weighted) = 0.19(PSMS) + 0.18(ESSE) + 0.17(ECS) + 0.16(OSS) + 0.15(ES)+ 0.15(RVTI) to derive the overall competitiveness and relevance of BEC qualifications. The recommendations on how each of the indicators could be improved were derived from studies carried out at indicator level.

Keywords: Competitiveness, Relevance, Composite-Measure, Bigger-Picture



## Assessment in Flexible Learning-and-Work Pathways

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Democratic South Africa has an integrated education and training system in the context of its National Qualifications Framework (NQF). Lifelong learning for personal and community development, citizenship, and socio-economic participation, also a United Nations Educational, Scientific and Cultural Organisation (UNESCO) Sustainable Development Goal (SDG), is central in this system (Bolton and Matsau, 2021; Martins and Furiv, 2019; Lotz-Sisitka, 2017; Walters, 2015; Cooper and Ralphs, 2016). Flexible learning-and-work pathways (FLPs) support lifelong learning and play an important role in achieving the objectives of the system, amongst others, access, redress, and mobility and progression in education, training, and development (Bolton and Matsau, 2021; Martins and Furiv, 2019). In South Africa, the Recognition of Prior Learning (RPL) and Credit Accumulation and Transfer (CAT) are key mechanisms for enhancing access, redress, progression, and the flexibility of learning pathways (SAQA, 2019; 2021). In this way, informal and non-formal learning (through RPL) and formal learning (through CAT) are recognized and contribute to further learning-and-work pathways. It is widely recognized that effective assessment systems are linked to improving educational quality and learning outcomes (SABER, 2013). While formative assessments can be used to enhance learning underway; summative assessments can be linked to progression in further learning and/or work. It is the quality and levels of learning achievements in the summative assessments that enable this mobility (Bolton, Lortan, and Maistry, 2020), and in this, the quality assurance of the assessment data is key. This paper addresses the question, 'What information exists on qualityassured assessment data for flexible learning pathways in South Africa?' It draws, firstly, on recent studies of articulation and learning pathways to sketch the nature of flexible pathways in the country (Bolton and Matsau, 2021; Martin and Furiv, 2019; Lotz-Sisitka, 2017). This qualitative view is followed by a quantitative trends analysis based on quality-assured assessment data in the NQF Management Information System (NQF MIS), of which the National Learners' Records Database (NLRD) is part. While currently there are no CAT data in the NLRD, learning achievements via RPL routes were analysed for general, higher, and occupational qualifications, and the professional designations of SAQA-recognised professional bodies. The paper closes by highlighting some data gaps in the NLRD, and how the presence of data, and the gaps, contribute to understandings of, and enhancing, the types of flexible learning pathways needed for social justice, social development, economic competitiveness, and links to the region, continent, and global world.

**Keywords:** National Qualifications Framework (NQF), Lifelong Learning, Flexible Learning Pathways, Articulation, Recognition of Prior Learning (RPL), Credit Accumulation and Transfer (CAT), Continuing Professional Development (CPD), Assessment



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A critical evaluation of the impact of implementation practices of the current assessment policy framework over the period 2013 to 2023 in the developing context of the Western Cape province

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This paper explores and supplies a critical overview of assessment policy directives in the National Department of Education (DBE) and in the Western Cape Education Department (WCED) as a case study. The aim is to contribute to the discourse of whether current assessment policies, assessment practices and pedagogical approaches are equipping learners with the appropriate skills, knowledge, attitude, and character for future studies and / or world of work. This paper will cite international and local research and in-service experiences to propose policy and assessment enhancements that could stimulate improved assessment practices in the classroom. The Curriculum and Assessment Policy Statements (CAPS), which guide curriculum and assessment implementation at school-level will determine the relevance of the framework supplied in the current South African context. Reference will be made to guidelines and pertinent circulars that were published to enhance the implementation plans of the CAPS. The evaluation of the CAPS and other policy directives will aim to establish a link with the skills indicated by the World Economic Forum (WEF) and the seven multiple intelligences indicated by Howard Gardner. The pedagogical approach required to enhance assessment practices within the classroom will be explored and the use of summative assessment information and data (assessment of learning) and the use and value of using formative assessment (assessment for learning) in the classroom, will be used to illustrate how assessment data can be used to inform teaching and learning to address learner needs which could lead to an improvement in learning outcomes (skills, knowledge, character and values). This paper emphasizes the impact of classroom practices as the niche to enhance learning outcomes and therefore the research of Anil Kanjee, Dylan Wiliam will premise recommendations for the South African classroom context that could lead to improved assessment practices that informs the pedagogical approach in the classroom and school.



Practice and Challenges of Continuous Assessment Implementation in Secondary Schools: The Case of Addis Ababa, Ethiopia

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The main purpose of this study was to examine practices and challenges of continuous assessment implementation in Addis Ababa secondary schools. To conduct this study, a descriptive survey research design was employed. A total of 180 secondary school teachers were included in the study. The data were gathered through a questionnaire. Data gathered through questionnaires were analyzed using percentage, frequency, mean, standard deviation. The data gathered through open ended questions were analyzed qualitatively through narration. The results of the study revealed that the practice of continuous assessment was at a low level. The study identified Lack of using peer assessment, Lack of uniformity in the CA implementation within department, Teachers lack of commitment to assess students, Teachers lack of using different assessment techniques, Using theoretical assessment for practical courses, teachers lack of providing timely feedback, Large class, Lack of educational facilities like copier, printer, shortage of computer lab, etc), Absence of strict assessment rules and regulation in exam administrations, Absenteeism, Lack of interest to be assessed through continuous assessment, cheating, dependency on other group members and Students lack of self-confidence and communication skills as major challenges of continuous assessment implementations under the study area. From this the following conclusions are drawn; The teachers' knowledge and skills could not be reasons since the research result revealed that teachers had appropriate and enough knowledge and skills to implement CA, the practice of continuous assessment in secondary schools lacks harmony and consistency and its practice was very low and it can be deduced that teachers did not use their knowledge and skills to properly implement CA. Thus, it is recommended that Ministry of Education assessment guideline should be reinforced, resource-related problems should be resolved by schools, follow up, monitoring and evaluation including awareness creation, training should be the guiding principles of continuous assessment under the study area. To get the intact image of the continuous assessment in the secondary schools, further studies should be conducted in the future.

Keywords: Continuous assessment, secondary schools, Practice, challenges



# 607 Changing Trends in Participation in the LGCSE Mathematics: Concise of the Extended Option Component

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Lesotho General Certificate of Secondary Education (LGCSE) began in 2015 and is a complete localisation of the Ordinary level as an adopted and adapted syllabus. LGCSE Mathematics is structured such that candidates choose between core (basic) and extended (more challenging) content. Guided by the syllabus assessment objectives, the extended component is meant for candidates who can do mathematics and related courses beyond the LGCSE stage. Over the years, growing concern about the cardinalities of the extended option emerged as candidates continued to opt for the former. The paper was intended to unpack the insights into facts surrounding the trends in the changes of candidates opting to do extended mathematics. Guided by the Attribution Theory as a theoretical framework, more insight was obtained. The study used quantitative descriptive approaches using the data of the registered candidates for both the November and June series over the past nine years. Descriptive analysis was enhanced by the follow-up open-ended group interview with the purposively selected participants to further obtain verbal evidence and find patterns in the changes and implications. The results depicted that participation is on an alarming decline, thus posing a threat to the future of Mathematics in Lesotho. Besides poor performance on the component, one major contributing factor is the selection of candidates to do extended option as influenced by candidates, teachers, or parents. It is, therefore, recommended that curriculum reform and teacher empowerment be considered with a strategic focus on alignment with the curriculum aims, teacher training, and assessment objectives. It is therefore empirical that schools and students are assisted on the selection and purpose of each Mathematics option. Development of digital content could ideally support teaching and learning.

**Keywords:** extended option, candidates' selection, performance, assessment objectives



### The effect of marking concessions on examination standards

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In recent years, Umalusi has seen an upward shift in the number of applications for marking concessions, otherwise known as accommodations. Marking concessions are one of the two types of concessions associated with assessment and examinations with the other type being concessions linked to learning barriers. This study focusses on marking concessions which entail granting approval to an assessment body to have a mark or marks excluded either entirely or partly on account of the error or errors in a question. The benefit of a marking concession, when approved, is that it mitigates the impact on learner performance caused by factors other than learners' knowledge of the subject. However, its downside is that it may affect the quality and standards of examinations. This study therefore evaluates the effect of approved marking concessions on examination standards. The central question is whether an examination with reduced marks, and the resultant decreased content assessed and cognitive weighting, amongst others, places the same demand on examinees as an examination without the changes in question. Methodologically, the study analysed Umalusi data on applications for concessions submitted in respect of the end-ofyear National Certificate (Vocational) examinations administered by the Department of Higher and Training (DHET) between 2017 and 2024. The NC(V) is, in terms of credits, equivalent to the National Senior Certificate (NSC) because both are on level 4 of the National Qualifications Framework (NQF). The analysis pays particular attention to the subjects involved, reasons for marking concessions, and the quantum of marks reduced. The significance of the study is that besides shedding light on the factors that give rise to marking concession applications and the magnitude of the problem, its findings afford an opportunity to Umalusi and assessment bodies to put in place intervention measures to avoid the recurrence thereof, thereby ensuring the maintenance of examination standards from one year to the other.

**Keywords:** Marking concessions, examination standards, cognitive demand, content assessed



## Assessment Practices and Academic Achievement in Biology at Advanced Level in Government-Aided Schools in Wakiso District, Uganda

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Biology is a key subject that a learner must pass at advanced secondary level to qualify for biological sciences at High Education Institutions (HEIs). However, high failure rates in Biology at advanced level have consequently led to low completion and transition rates to science based courses at HEIs. This study therefore investigated the relationship between assessment practices by teachers and academic achievement of students, in Biology at advanced level in selected government aided secondary schools in Wakiso district. The study adopted the cross sectional research design that accommodated both quantitative and qualitative methodology. Stratified random sampling was adopted to select 63 Biology teachers from 15 schools. Purposive sampling was used to identify heads of departments, examination masters, director of studies and head teachers in the selected schools. The findings revealed a significant positive correlation of 0.332, p < 0.05 between assessment planning and academic achievement. Similarly, assessment methods had a positive significant relationship of 0.377 with academic achievement. Regression analysis further reflected substantial impact of 28.8% assessment planning on academic achievement while assessment methods showed an impact of 32.1%. The thematic analysis of qualitative data emphasized the importance of assessment planning and assessment methods in improving student outcomes in Biology. However, some teachers exhibit basic interpretation of the assessment practices. Recommendations were made to the Ministry of Education and Sports to retool teachers in skills of assessment practices and the Directorate of Education Standards to monitor the interpretation of learning outcomes, success criteria and development of test blueprint by teachers during assessment planning. School administrators should ensure that teachers deploy various assessment methods to enhance academic achievement in Biology at advanced level.

**Keywords:** Assessment Practices, Academic Achievement, Biology Subject, Advanced level.



## Exploring Undue Advantage of DIF in High-Stake Assessment: The Implication on SDG4

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In ensuring equity of measurement between subgroups at the item level, Differential Item Functioning (DIF) analysis is essential. However, discounting DIF affects validity, thereby making SDG4 challenging to attain. DIF occurs when test items behave differently for distinct subgroups, potentially leading to biased outcomes and undue advantages to one group over the other. The study aims to examine DIF in highstakes assessment among the demographic variables (such as gender, school-type, and region). The study investigates DIF in the 2017 National Examination Council (NECO) mathematics items, focusing on gender, school-type, and region. The expo facto research design employed purposive sampling to select 320,209 samples from the 1,034,629 senior secondary school students who participated in the NECO mathematics examination. The 2017 NECO mathematics item serves as the research instrument while unveiling Cronbach alpha of 0.84 coefficient. The study revealed significant DIF across gender, school-type, and region in the 2017 mathematics items. The findings feature the importance of addressing bias in high-stakes assessments to ensure equal opportunities for all students, regardless of their demographics. The study concludes that careful review should be done in developing high-stakes assessments to eliminate any potential biases that may disadvantage certain groups of students. This research contributes to the ongoing discourse on assessment validity and fairness, offering insight for practitioners and policymakers to enhance the integrity of high-stakes assessments.

**Keywords:** High-stake Assessment, Bias, Differential Item Functioning, Validity, Reliability.



Improving Assessment Practices Through Candidate
Feedback: The Case of Joint Admissions and Matriculation
Board (JAMB)

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The main objective of the study is to identify and reflect on the Joint Admissions and Matriculation Board's Service Compact with all Nigerians (SERVICOM) Core Values by learning from candidates' experiences and feedback at the Muhammadu Buhari Professional Testing Centre (MBPTC) 1 & 2, Kaduna so as to improve the Board's service delivery. The study employed a survey research design in gathering, processing and analysing quantitative and qualitative data. A candidate satisfaction survey was conducted at the MBPTC 1 & 2, Kaduna for three groups of candidates that requested for the services of the Board in the third quarter, (October-December), 2023. A SERVICOM dairy with adapted 5-point Likert scale question items was completed by a total of 2,557 respondents, who were Unified Tertiary Matriculation Examination (UTME) candidates, graduates and undergraduate students of tertiary institutions in Nigeria. The study used t-test for data analysis. The study revealed that JAMB MBPTC 1 & 2, Kaduna used ten distinct dimensions of SERVICOM Core Values as indicators of the construct of perceived service quality. Other result indicates that calculated t-value is greater than the critical t-value at an alpha level: p < 0.05 which indicates that candidates' expectations meet the service quality specifications of JAMB at the Muhammadu Buhari, PTC 1 & 2, Kaduna. We therefore conclude that there is no gap between candidates' expectations of service and the service they actually received at the Muhammadu Buhari Professional Testing Centre (MBPTC) 1 & 2, Kaduna. This study has important implications for educational institutions, who wish to improve assessment practices through students' experiences and more effective and constructive feedback.

Keywords: Candidate feedback, candidates' expectation, service gap, service recovery, service delivery, service quality specification, MBPTC.



## A Framework for Integrating Citizenship Education in the Teaching, Learning and Assessment of Science Practical Work

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Zimbabwe implemented a competence-based school curriculum from 2017. The thrust of the curriculum is to offer an education that a learner can live or survive on. With regard to science education, the curriculum aims to expose learners to science practical work using methodologies and assessments that are learner-centred and would impart life skills and foster self-reliance in the citizens. Such an education is classified in this research as citizenship education. The purpose of this research was to investigate the methodologies and assessments that were used in the implementation of the curriculum in the teaching and learning of Combined Science practical work in relation to the agenda of citizenship education. The research was carried out using a mixed methods research approach, the QUAN-QUAL concurrent parallel triangulation research design, where a cross-sectional survey and a multiple-case study were both employed. The sampling technique used in the multiple-case study was purposive sampling. The three purposively sampled secondary schools each represented a category of the Zimbabwean schools. The multiple-case study collected data through lesson observations, teacher and Head interviews, document analysis and focus group discussions. The cross-sectional survey was conducted using a questionnaire administered to five hundred and ninety-three (593) Combined Science teachers who were sampled using the maximum variation purposive sampling technique. The data gathered were analysed thematically. The research results indicated that science practical work was generally very limited in Zimbabwean secondary schools and was also not linked to science citizenship education during the teaching and learning process. The research concluded that there was a general lack of integration of citizenship education to the methodologies and assessment of Combined Science practical work as the programme lacked clarity, policy direction, resource support, monitoring and evaluation. The research then developed and recommended a framework that enhances the integration of citizenship education in the pedagogy and assessment of science practical work. From the results, the framework posits that effective citizenship education has to be anchored by eight vital pillars, namely educational policies, staff-development, community challenges and needs, science content and objectives, constructivist pedagogies, constructivist assessments, programme monitoring and evaluation, and programme resource allocation.

**Keywords:** Citizenship education; Cross-sectional survey; Educational assessment; Framework for science citizenship education; Mixed methods research; Multiple-case study; Science education; Science practical work; Social constructivism



Stakeholders Involvement in WAEC's Approach at Curbing Examination Malpractice at The West African Senior School Certificate Examination in Nigeria

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This paper investigated the implementation of various interventions introduced by the West African Examinations Council (WAEC) to curb examination malpractice by various stakeholders. The population of this study comprised WAEC stakeholders (supervisors, Invigilators, Examination Officers, Undergraduates (former candidates), Ministry of Education Officials and WAEC Staff in Nigeria). Multistage sampling techniques was used to select the sample. In all, 1,308 comprising of 305 supervisors, 209 invigilators, 271 school examination officers, 421 undergraduates, 12 Ministry of Education Officials and 90 WAEC staff participated in the study. Questionnaires and Interview guide were developed to solicit information from the respondents. Quantitative data collected were analysed using frequency counts and percentages, while the qualitative data were analysed thematically. Findings from the study revealed that most of the interventions were always implemented except for metal detector usage which respondents revealed that was not used. However, the challenges impeding the successful implementation of these interventions were identified as supervisors' negligence, non-availability of crucial tools like metal detectors, and malfunctioning of some biometric devices. Respondents thereafter proposed sensitisation of stakeholders on the implication of examination malpractice before the conduct of WASSCE; and the transitioning of WASSCE from a paper-pencil test to a computer-based examination, which could increase the credibility of the examination.

**Keywords:** examination malpractice, implementation, stakeholders, WASSCE



## A Critical Review of the Purposes and Authenticity of e-Assessment Policies and Practices

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Technology has become omnipresent and has found many applications in many aspects of human endeavour. In this respect, educations systems have fought hard not to be left behind with respect to their central role of enhancing teaching and learning – including assessment. In general, the overall purpose of assessment is to account for the knowledge, skills, dispositions and attitudes that learners possess as a result of their educational experiences. Indeed, in recent times, there has been an increased emphasis on the role of technology enhanced assessments, which have mainly taken the form of e-assessment to improve assessment designs through the use of innovative digital tools. However, although new digital technologies are changing the nature and contexts of education worldwide, it is important that these changes are directed and driven by appropriate education policies to ensure that the attendant practices remain relevant. This way, we can hope to better prepare and develop the unique human abilities our learners need for the realities of the evolving knowledge-based creative economies and other societal needs. Nonetheless, authentic e-assessment obtains where there is alignment between the pedagogies used in the coverage of the curriculum and the digitised assessment tools and modalities. For instance, where e-assessment is used, it is authentic only if the learning process was digitally mediated. It should not be the case that a country rushes towards e-assessment but fails to explicitly address how the e-assessment intersects with the learning processes. This paper examines the purposes of e-assessment and reflects on the authenticity of attendant policies and practices in relation to extant pedagogical practices and learners' classroom experiences. It is envisaged that the paper will make a contribution towards a better understanding of the challenges and opportunities that must inform the development and implementation of digital education policies, including digitised assessment. There is a danger that the rush towards the establishment of policies, frameworks and practices for e-assessment may be driven by the desire to appear to be modern as well as the need to attain efficiencies, at the expense of validity and authenticity, especially for developing countries.

**Keywords:** Assessment policy, e-assessment, pedagogical practices, authenticity, challenges, opportunities.



# Investigation of the Implementation and Management of the School Based Assessment (SBA) in the General Education and Training (Get) Band in Mpumalanga

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Providing quality is a measure need for any organisation, the Department of Basic Education in South Africa has been criticised about the ignorance in producing the quality. According to UNESCO (2004) in all education systems, quality should be characterised by the learners' cognitive development and the role of education in promoting values and attitudes.

A qualitative study was conducted to describe and report the practices and challenges of the management of School Based Assessment (SBA) in General Education and Training (GET) in Mpumalanga Province of South Africa. The study also aimed to investigate the quality of the SBA tasks in GET. This study responds to the research question: How do teachers in GET administer and manage SBA to support learners in achieving the learning outcomes? Document analysis was the main data collection technique. Focus group discussion was conducted during the central SBA moderation session, the discussion was guided by aspects in the SBA moderation tool with the purpose of getting more information about SBA practice and to verify issues that were not clear during the analysis of the documents. Discussions were also held with five individual teachers and three Departmental Heads from the sampled schools in order to confirm the data collected from the other sources, these would provide suitable evidence about their practice of SBA Findings of the study had revealed inconsistencies regarding the administration and management of SBA in terms of the quantity and quality of the informal and formal tasks; monitoring of informal tasks by SMTs; transfer of marks to the recording sheets; capturing of marks to the SA-SAMS system; moderation of SBA at school and district levels; and correlation of the teachers' files and learners' books. The study recommended that school Departmental Heads and teachers be supported on administration, monitoring and moderation of SBA.

**Keywords:** School Based Assessment; Departmental Heads; quality; assessment tasks, moderation



## Exploring the Possible Impact of Pretesting the Lesotho General Certificate of Secondary Education Examination Questions

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Assessment is an important part of the education system, most importantly the highstake examinations in measuring candidates' performance and shaping their future. This suggests that examination tools must be of the highest possible level of accuracy year after year. One of the ways to achieve that is through pretesting examination questions before they are written. However, with many examination bodies, including the Examinations council of Lesotho, that is not the case. This leads to examinations that could be written at national level with errors which could have been eliminated through pretesting. This study explored the possible impact of pretesting examination questions prior to formal assessments, as an additional quality assurance tool at the Lesotho General Certificate for Secondary Education (LGCSE) level. The research question centred around whether the pretesting of examination questions could be explored as one of the existing various quality assurance methods in the context of Lesotho, to ensure quality examinations. The study also intended to find out how to safely administer pretesting. The study followed a qualitative approach, using document analysis, whereby 4 electronic documents or publications were carefully studied, analysed and conclusions drawn from them. The approach was cost and time-effective and allowed gathering and analysis of large amount of data about different countries backgrounds regarding pretesting. These publications were specifically selected from different countries where pretesting of examination questions is applied. The results of the study reveal that it is beneficial to pretest the questions. The study results also shed light into how pretesting, although challenging and requiring careful control, can be safely administered to prevent possible malpractice. The impact that pretesting has had on the quality of examination materials in these countries is also highlighted. It is, therefore, concluded that pretesting can be suitable as an additional quality assurance tool for LGCSE, and the study therefore recommends that it be utilised. Suggestions are also provided on how to safely administer pretesting in the Lesotho context.

**Keywords:** Pretesting, LGCSE, impact, assessment, quality assurance.



# Opportunities and Challenges for Recognition of Prior Learning: The Case of Technical, Vocational and Occupational Assessment in Uganda

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The recognition of prior learning (RPL) and its alignment to technical, vocational and occupational assessment and the formal vocational education qualification framework has not been given adequate attention, despite the acute shortage of critical practical skills required in the economy for income generation, economic productivity and competitiveness. The study aimed at getting an in depth understanding of the opportunities and challenges of recognising prior learning in formal technical and vocational training and assessment. The specific objectives included examining the general perceptions of RPL among study participants, investigating the impact of RPL on lifelong learning and examining the effect of RPL on employment. Qualitative research approach was used for the study and it involved document reviews and conducting semi structured interviews to gather data. Using stratified and simple random sampling, 67 study respondents were selected from instructors and practitioners from world of work. Data was collected using interview guides and later cleaned, coded and analysed using STATA. The findings established that most of the study participants had good perceptions about RPL, by strongly concurring that it enhances self-esteem, improves work attitudes and leads to more effective training, etc. Additionally, there was a strong positive correlation between Recognition of prior learning, lifelong learning and employment, implying that RPL provides opportunities for lifelong learning and accelerates employment of citizens. In a bid to address the social and economic consequences of failing to pay attention to the increasing levels of unrecognized skills, there is need to make RPL better known and understood by the relevant stakeholders, RPL should be incorporated in the formal vocational education qualification framework and there should be commitment and support by relevant stakeholders by way of formulating and implementing policies that are in the affirmative of recognition of prior learning (RPL).

Keywords: recognition, prior learning, formal qualification, lifelong learning, employment.



# Comparing the Levels of Linguistic Complexity in the Reading Comprehension Passages Set for the NSC EFAL Grade 12 Paper 1 Examinations from 2019 to 2023

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This study examines and compares the levels of linguistic complexity in the reading comprehension passages set for the National Senior Certificate (NSC) Grade 12 English First Additional Language (EFAL) Paper 1 examinations from 2019 to 2023. The EFAL Paper 1 Comprehension segment carries the highest mark allocation in this paper and plays a crucial role in determining candidates' success. Therefore, evaluating the linguistic complexity of the passages is essential for assessing the reading comprehension skills required of Grade 12 learners. By analysing examination papers from the past five years, this study offers an overview of linguistic complexity trends over time; ensuring comparability. Understanding the complexity levels enhances the validity of Grade 12 learners' linguistic demands and the South African examination assessment. Sensitivity to these complexities forms an integral part of the quality assurance process of the paper. To achieve the objectives of the study, a quantitative analysis of the occurrence of linguistic features that determine text complexity was conducted. These include linguistic complexity measures of lexical complexity, density and diversity, syntactic complexity, sentence structure, and vocabulary levels of difficulty. Linguistic complexity metrics and tools were utilised to measure the complexity of each of the passages before a comparison was made. The findings of this study have significant implications for educational policy and curriculum development. An understanding of the linguistic complexity of the examination papers can assist policymakers gain insights into the adequacy and appropriateness of the reading comprehension assessments. These insights can inform decisions related to curriculum design, examination guidelines, instructional strategies, and teacher training and development programmes aimed at enhancing Grade 12 learners' reading comprehension skills. Furthermore, the results may highlight any significant changes or patterns in the linguistic complexity of the comprehension section over time. This information can assist in guiding policymakers in making informed decisions regarding the refinement and improvement of the NSC Grade 12 examinations. Subsequently, ensuring an accurate reflection of the linguistic demands of higher education and the workplace.

**Keywords:** linguistic complexity, reading comprehension, NSC EFAL Grade 12 reading comprehension skills, quantitative analysis, and educational policy.



The Implementation of Technical, Vocational Education and Training Policy and its Impact on Assessment Practices in Technical Colleges in Nigeria

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The main objective of Technical, Vocational Education and Training (TVET) is to produce skilled and enterprising professionals, including craftsmen, technicians, and other self-reliant individuals. To achieve this objective in Nigeria, effective implementation of TVET policies by government and stakeholders is crucial. TVET policies are the rules, regulations and decisions that govern how TVET institutions operate, what they teach and how they assess students. The policies encompass a wide area including teacher training, assessment, curriculum and funding which are implemented at the national, state and local government levels. TVET policies significantly influence students' learning experiences and opportunities, shaping their educational journey. However, over the years, the gap between TVET policies implementation and goal attainment has become a great concern to many observers. Thus, the extent to which the policies have been implemented is uncertain. This study investigated the extent of TVET policy implementation and its impact on assessment practices for improved educational outcomes in Nigerian technical colleges. Three key aspects of TVET policies examined in this study are: teacher training and retraining, infrastructure and resource provision, and periodic review and updating of technical trades curricular. The study adopted survey research design employing quantitative and qualitative approaches. The population comprised all teachers in technical colleges in Nigeria. A sample of 1080 teachers was randomly selected. Four research questions guided the study. One validated instrument was used: Questionnaire on TVET Policy Implementation and Assessment Practices (Cronbach Alpha = 0.81). Quantitative data were analyzed using mean, standard deviation and regression analysis while qualitative data were analyzed thematically. The findings revealed that TVET policies were implemented to a low extent due to challenges such as inadequate funding, corruption, and poor monitoring. It further revealed that TVET policy implementation had a positive and significant impact on assessment practices. The study recommends, among others, that government should prioritize effective implementation of policies at the national, state and local government levels to enhance teaching and learning practices that will improve the quality of TVET.

**Keywords:** implementation, TVET, policy, impact, assessment practices, technical colleges



## An Evaluation of the Characteristics of the Item Parameters of the Science Junior Certificate Examinations using IRT

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In order to ensure and promote the quality of education and maintain competitive standards both locally and internationally, it is paramount for examination bodies to develop assessment tools with good characteristics of item parameters. This is to ensure that examinees are not tested on items that are beyond their scope which may risk the ability of obtaining the correct information about the ability and/ or performance of the candidates. Although it is not always quite easy to achieve this, it is nonetheless still critical to look for such evidence to minimize the effects of having poor quality assessment instruments which could lead to misclassification of candidates, more especially when such information from assessments is used to make decisions such as that of selection. It is on this background that this study was conducted, for self-evaluation, to gauge the strength of the characteristics of the item parameters of the 2018 JCE examinations and estimate the ability of the candidates who took the same examination through Item Response Theory (IRT). The study randomly sampled Science and used the entire population of 38 274 examinees in public schools. The analysis followed a qualitative approach, where the 3-parameter logistic (3 PL) IRT model was chosen. Item model fit could not be achieved for most of the items. As for the item parameters, the results revealed that the estimates obtained satisfied the desired values usually observed in practice and the utility towards the major testing purpose of the examination. The analysis on examinee theta estimates revealed that most of the examinees were well suited for the examination while there was also a substantial number of candidates whose ability estimates were too low for the examination. A few candidates had high ability estimates beyond what is usually observed in practice. Regional differences in examinee ability estimates were also observed.

**Keywords:** IRT, JCE, theta, model fit, item parameters.



#### 630 The assessment of learners with mild to moderate intellectual disabilities

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#### Abstract

It is common practice to provide accommodations for learners who demonstrate mild to moderate intellectual disability (MID) on conventional assessments, including high-stakes examinations. Extra time, isolated seats, readers and scribes, test formats and presentation or response, and assistive devices are examples of these accommodations. One concern is that even with these adjustments, academic success is still restricted as the adjustments do not address the cognitive load of the task. This study examined how Schools of Skills currently handle the assessment of learners with MID, focusing on the difficulties faced by the learners and how those difficulties affect the assessment practices. The study followed a qualitative approach. An online survey was used to collect qualitative data from 30 schools, and in addition, principals from six schools participated in semi-structured interviews. Data was analysed thematically. Findings show that the learners have limited cognitive abilities, and therefore experience difficulties processing and remembering large amounts of information at once, have limited executive functions, have poor academic attitudes, and have short attention spans. In addition to the difficulties experienced by learners, findings regarding the current assessment practices are that all formal tests consist primarily of various short-answer question formats; all summative assessments are brief and sometimes administered semesterly, and practical assessments are given a higher weight than theoretical assessments. This study has uncovered that the use of conventional accommodations does not adequately provide learners with MID the opportunity to demonstrate their knowledge and competencies. Therefore, the study recommends that education policies be amended to address the current assessment challenges to encourage academic success for learners with MID.

**Keywords**: Mild Intellectual Disability, Moderate Intellectual Disability, Conventional Assessment, High-stakes Examination, Accommodations, Mainstream Schools



### An Investigation of the Assessment Practices in Mathematics

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Current challenges in Mathematics Education date back to time immemorial (Alexander, 2016). SA learners are performing below the international average across board (Reddy, 2006). DBE developed a Mathematics Teaching and Learning Framework (MTLF) for South Africa to guide and assist teachers to teach Mathematics in a way that improves learner outcomes. According to the DBE's MTLF, teachers should strive to teach Mathematics such that learners develop procedural fluency, develop learners' strategic competence and provide opportunities for learners to develop mathematics reasoning skills. The approach to teaching Mathematics as suggested in the MTLF could improve the assessment practices in mathematics education and consequently improve learner outcomes. The aim of this paper was to investigate the assessment practices linked to poor performance of learners in Mathematics in Mpumalanga Province. The paper attempted to answer the question "What are the assessment practices linked to poor learner performance in Mathematics?" Document analysis as a data collection technique was used in order to answer this question. Sampled mathematics teachers and lead teachers were interviewed for triangulation of data purposes. It was found that the assessment practices in mathematics classrooms are not in alignment with the MTLF. For example, learners were struggling with questions where they needed to apply knowledge. Probably because Mathematics was not taught for conceptual understanding. It was found from data analysis that learners have the habit of writing and erasing. Writing and erasing was found to waste a lot of the learners' time when writing tests and examinations. Clearly, the writing and erasing or cancellation was linked to learners lack of strategic competence when solving problems in Mathematics. The study recommended that there should be a development of assessment item bank comprising of different cognitive levels questions and these should be distributed to schools to use for formative assessments. Districts to monitor the implementation of the DBE MTLF by all schools in order to improve the assessment practices in Mathematics.

**Keywords:** Assessment practices, DBE MTLF, learner performance.



636 Challenges of Utilising Knowledge Management Systems in Kenya and its Impact on Learners' Learning Outcomes in Secondary Schools

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Many secondary schools in Kenya have not embraced knowledge management systems. The application of these systems has not been adequately understood by most secondary school teachers and principals. The systems should be able to address the creation, transfer and storage of relevant explicit and tacit knowledge to be used by learners and knowledge providers during assessment. The success in converting educators' and learners' tacit knowledge into explicit knowledge to be internalized by the learners as tacit knowledge is key in improving acquisition of knowledge and skills in the 21st Century. This research investigated the extent to which knowledge management systems are utilized in secondary schools in Kenya and the effects it has on learning outcomes. It also looked at the challenges faced by the schools in applying these systems and finally recommended possible solutions to these challenges. The study was based in Nakuru county which has eleven sub counties. The schools in all the eleven sub counties were stratified into the categories as recognized by the Ministry of Education then three sub county and three private schools were randomly sampled. Two national, extra county and county schools were purposively sampled based on gender. A total of seventy-two out of five hundred and sixteen secondary schools in the county were considered in the study. Data for this study was collected using questionnaires from heads of departments and interviews for the principals in all the sampled schools. Observation guide was used to establish what schools had in relation to knowledge management systems such as school resource centres, computer laboratories and media centres. Data analysis was done using Excel 2023. The study established that inadequate usage of technologies, policy to guide in the usage of knowledge systems and ignorance on the side of teachers as the key contributing factors to the application of knowledge management systems that can enhance non-traditional learning experiences. There is a need to have an established policy on information knowledge management system by the government of Kenya to help the schools tap tacit knowledge from education stakeholders and convert it to explicit knowledge through the application of digital devices.

**Keywords:** Knowledge systems, Pedagogy, Learning outcomes



The role of assessment in improving accountability and quality of education provision

701 Improving Accountability and Quality of Education Through the UTME

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Since education affects and sustains national development, it is important that its provision is qualitative and that there is accountability in its provision. This is so because the development of any nation is traceable to the quality of its education and how accountable it is; hence, a more powerful tool or instrument for imparting powerful knowledge, skills, attitudes, values and beliefs to the learner is qualitative and accountable education. It is on this premise that the Joint Admissions and Matriculation Board (JAMB), re-defines, in a new light, the concept of higher education through the selection and placement of quality candidates into the country's tertiary institutions by whatever name called. It achieves this through the deployment of the Unified Tertiary Matriculation Examination (UTME) which is a high-stakes examination administered through the Computer Based Test (CBT), a digital assessment. The purpose of this paper, therefore, is to highlight the Board's processes that have contributed to the quality of higher education in Nigeria and how through the deployment of the UTME, accountability is achieved and improved upon. The paper, being a qualitative and/or a position paper, deploys the simple descriptive analysis to advance its claims. The application and admission statistics of candidates for the period of five years (2019 - 2023) and the examination reporting overview of the conduct of the 2024 UTME formed the data for the analysis. Findings showed that JAMB's interventions/strategies such as the deployment of CBT, Biometric verification and authentication, data security and protection, remote proctoring among others have helped to improve accountability and quality of higher education in the country. Paper concludes that JAMB is better positioned now to deliver quality assessment to its numerous candidates, as it ensures that the UTME measures accurately the abilities of its candidates. Paper, thus, recommends that other public examination bodies take a cue from the innovations of the assessment practices of JAMB to help improve the quality of higher education in their various countries, which will translate to improvement of accountability in education globally.

Keywords: JAMB; UTME; Accountability; Quality; CBT; Higher Education.



703 Candidates' Perspectives of Effect of Assessment on Stakeholder Accountability and Quality of Nurse Training. A case of the December 2023 UNMEB Semester Examinations

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Introduction: Changes in the modes of assessment invariably cause high expectations among stakeholders directly involved in the training, and assessment of student nurses. Advancing student accountability empowers students to take responsibility for their learning and prepares them for quality professional practice and patient safety. Methods: This qualitative exploratory study was conducted to explore perspectives of candidates of the December 2023 UNMEB Semester Examinations on the effect of assessment modalities on the quality of nurse training and accountability. It involved 45 candidates from 15 accredited UNMEB centers who were interviewed using interview guides. An inductive thematic analysis was done using ATLAS.TI Version 22.2.

Results: student challenges to sufficient preparation for CBA arose from varying understanding of the purpose of assessment and poor learning environment. Furthermore, students recounted key enabling factors to adequate preparation for CBA, including strategies to overcome the challenges and changing student perceptions and responsibility towards assessment.

Conclusion: When students realize they are accountable for their learning and patient outcomes, they desire to become more responsible to ensure that all that needs to be done to adequately prepare them for their role as future nurses is done. This calls for action plan protocols that enable students to ultimately self-regulate their learning and professional development.

Keywords: Assessment, quality, accountability, responsibility, nurse training



# 704 Development Towards Improving Accountability and Quality of Education Provision in Uganda

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This quantitative study explored the impact of assessing early years children's' holistic development on accountability and the quality of education provision in Uganda. The objectives were to evaluate current assessment practices, determine their impact on accountability, quality, and identify challenges and opportunities in implementation. Using Krejcie and Morgan's table, 240 participants were selected. Ethical standards were maintained, and SPSS was used for data analysis. Findings showed that early childhood development assessment is crucial for promoting accountability and improving education quality. Effective practices, such as regular observation and documentation, enabled better tracking of children's progress and informed decisionmaking. The importance of standardized assessment tools and adequate educator training was emphasized. However, gaps were noted, including the need for further research on parental involvement, culturally appropriate assessment tools, play-based assessments, and strategies for assessing children with disabilities. Recommendations included raising parental awareness, providing ongoing professional development for educators, securing sustainable funding, and establishing clear guidelines and standards for assessment. Future research should explore the long-term effects of early childhood development assessment on learning outcomes and socio-emotional development. These steps are essential for enhancing assessment practices in

development. These steps are essential for enhancing assessment practices in Uganda and improving the quality of education.

Keywords: Assessment, holistic, quality education



The nature of assessment and its responsibility in influencing quality education in primary schools of Uganda

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The study evaluated the role of assessment in improving accountability and quality of education provision in selected primary schools in Uganda. The following objectives were addressed: evaluate assessment effectiveness, establish the level of demand for accountability and quality of education provision, establish the role of assessment in improving accountability of education provision, and establish the role of the assessment in improving quality of education provision in primary schools. A crosssectional design applying a qualitative and quantitative approach was adopted. A two-stage stratified random sampling technique was adopted for the study to identify schools and then teachers who were respondents. A total of 320 teachers from 16 primary schools responded to a structured questionnaire. The analysis involved descriptive statistics that included frequencies and percentages as well as inferential statistics that included Spearman correlation. Most teachers (68% to 81%) reported effective assessments that were often generated. More teachers (77% to 89%) indicated a fair demand for accountability for education provision. Most teachers (62% - 74%) stated fair quality of education provision on the statements that measured this variable. A weak, negative correlation between assessment and education accountability was attained ( $\rho = -.282$ , n = 320, p < .05). A weak, positive correlation between effective assessment and quality of education was obtained ( $\rho$  = -.282, n = 320, p < .05). The study established that although assessment was better and effective in primary schools, it was not effectively utilized to improve accountability and quality of education provision. This study recommended interventions to help teachers in utilizing assessment and for an increase of supervisors' demand for accountability to enhance dimensions of learning aspects: engage, apply and evaluate for provision of quality education

Keywords: Assessment, Accountability and Quality of Education Provision



111 A Cross-Sectional Study on the Role of the Joint Admissions and Matriculation Board in Reforming the Assessment Processes Amid the Growing Academic Decadence

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The overwhelming increase in academic decadence faced by Nigeria's educational system has made it difficult to achieve a quality evaluation process, necessitating an ongoing search for solutions to ensure assessment credibility. This research paper delves into the roles played by the Joint Admissions and Matriculation Board (JAMB) in addressing the growing academic decadence among our youths in the 21st century. This study primarily focuses on the various restructuring reforms introduced by JAMB, including the shift from traditional paper-based tests (PBT) to computer-based tests (CBT). In addition, this study assessed the impact of measures such as the central admissions processing system (CAPS), the use of closed-circuit television (CCTV), and biometrics in curbing malpractice. Furthermore, this research paper also administered a survey to better understand the population's perceptions of the present JAMB reform initiatives intended to reduce academic decadence. Descriptive statistics and Likert analysis were utilized to analyze the responses of the respondents. Approximately 89% of all respondents believe it is difficult to cheat on CBTadministered exams, and about 90% attest to the transparency of the examination processes. It was found that the role of students and their parents was perceived as a major factor contributing to academic decadence among the teeming youths of Nigeria. Other factors, such as a lack of teaching aids, overcrowded classrooms, and insufficient teacher training, also contributed highly to academic decadence. This cross-sectional study will serve as an important tool that will contribute to the use of technology in encouraging seriousness in students preparing for external examinations.

**Keywords**: Academic decadence, computer-based tests, central admission processing systems, curbing malpractices, digital assessment.



707 Data from Public Examinations as Surrogate Indicators in the Measure of Education Quality and Accountability. Evidence from Cameroon

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The number of education targets and indicators of the SDG 4- Education 2030 Agenda place an unprecedented demand on countries to produce more and better data. While many governments and organizations responded to this challenge by generating copious amount of data to support education- decision making, large gaps persist as to the suitability and relevance of the data. The purpose of this study is to investigate the suitability and applicability of data generated from public examinations in Cameroon as a measurement of quality and accountability. The study employed data from the Cameroon General Certificate of Education Board for the 2023 academic year that was presented to stakeholders. Data analyses showed that it failed to provide stakeholders with the relevant, reliable, accurate and coherent information about the state of the education system compared to information obtained from national and international assessment. Data from public examination in Cameroon do not provide correlates of learning achievements nor the proximate determinants of learning outcomes. The data do not address concerns like achievements of subgroups in the population or how achievements are associated with the characteristics of the learning environment. The study concludes that there is a dearth of evidence on the quality of student learning as data from public examination are insufficient for evidence-based decision making. The study highlights an immense breach between the surrogate indicators available on quality education in Cameroon and the robust data required to understand the full dimension of the learning crisis, address areas of need, monitor progress and get stakeholders accountable. The study recommends the creation of an Education Management Information System (EMIS) to strengthen the national data system. This would entail a strong political commitment and stakeholder engagement. Cameroon is urged to participate in PISA for Development to enable her build capacity for managing large scale student learning assessment and using results to support policy dialogue and decision making.

Keywords: Leaning outcomes, Accountability, Outcomes- driven policies



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**Evaluating the Impact of Formative Assessment Intervention and Experiences of Secondary Teachers in Teaching High-Order - Thinking Skills in Physics** 

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Formative assessment may be useful pedagogical practice to strengthen the teaching of HOTS in physics. This study investigated the impact of a formative assessment intervention on students' achievements in HOTS physics tests (pre- and - post) when their teachers were supported to implement the instructional intervention and for secondary school teachers' if their practices in teaching HOTS have changed after intervention; finally teachers' experiences with the intervention. This study employed mixed methods (sequential) approach with single group, pretest, intervention (training), and post-test instruments. Data was gathered from 14 secondary schools involving 14 teachers and 280 Senior four secondary school students in Kabale Distict, Uganda. Students' test scores were used to measure the achievement in physical HOTS items along with classroom observations and interviewed the teachers' experiences. Students' achievement data were assessed for internal reliability and validity by applying Rasch Partial Credit Model (RPCM) followed by descriptive analysis and a one sample t-test. The observed and interviewed teacher data were analysed by categorising the content and thematic analysis, respectively. The student's achievement in physics HOTS items was found significantly improved from pre-test to post-testing. Post- intervention classroom observation showed that teachers practiced the integration and implementation of some formative assessment strategies. Teachers' experiences proved to be in support of formative assessment of higherorder- thinking skills as a pivotal to strengthen physics teaching.

**Keywords:** Formative assessment, higher order thinking skills, intervention, secondary school physics teachers.



## 711 Scientific Reasoning Development in Eswatini Classrooms: Leveraging Public Examination Feedback

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The ever-growing volume of science and technology products nowadays, calls for the ability to judge whether the evidence of the product's performance is consistent with the attached claim. Such theory-evidence coordination constitutes scientific reasoning. This paper assesses how public examination feedback developed such a crucial skill. The study was guided by the questions: What types of attributions do teachers attach to their level of access to public examination feedback; how do teachers infuse public examination feedback in pursuing scientific reasoning-laden objectives; and which learning strategies do public examination feedback materials impact most? The attribution and sociocultural theories underpinned the study. A case study, a lesson observation and a focus group interview were run. Shirley (2009)'s framework structured the analysis of the observed lesson. Results confirmed the self-serving bias type of attribution among teachers. In addition, past examination feedback appeared to have a stronger influence on both learning and setting of teachers 'own test from the public examination feedback material.

Keywords: classroom, public examination, feedback, scientific reasoning



## 714 School-Based Assessment as a Driver of Self-Regulated Learning: Experiences of Tourism learners

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School-based assessment (SBA) is a relatively new approach to assessment at school level that aims to drive teaching and learning. SBA, which is a continuous assessment approach, is vital in the assessment of learners as it serves to support teaching and learning processes and assists in tracking learner progress on a continuous basis. Given the importance of SBA, the value of learners' voices in contributing to assessment practices is crucial if the education system is committed to its efforts to improve accountability and quality education. This paper focuses on the views of Tourism learners about SBA. Tourism is an elective subject in the Further Education and Training (FET) phase in basic education in South Africa. This interpretive case study examined Tourism learners' experiences of SBA to determine if it played a role in enhancing self-regulated learning in this subject. The researcher recruited Tourism learners from two secondary schools in the KwaZulu-Natal Province, resulting in a sample of a total of 40 Grade 11 learners who participated in four focus group sessions. The findings suggest that SBA is a driver of self-regulated learning (SRL) as the learners affirmed that this continuous assessment approach in Tourism improved their autonomy and helped them take ownership of their learning, while it also enabled them to access knowledge and insight individually and in collaboration with others. The findings suggest that SBA allows learners to take control of their own learning on their journey to becoming self-regulated learners. The findings have profound implications for the role of assessment in the schooling context as it improves learners' accountability and sense of ownership of their own learning. Moreover, the variety of SBA assessment practices facilitates knowledge construction and thus improves the quality of education provision.

Keywords: School-based assessment; self-regulated learning; Tourism; learners' experiences



716 Learning in Eclectic Formative Assessment Strategies: Experiences of Accounting Pre-service Teachers in one Higher Education Institution

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One of the goals of Accounting education is to develop graduates capable of equipping learners with analytical skills pertinent to analysing and understanding financial information required in making economic decisions. Acquisition and development of knowledge and skills essential in learning Accounting requires total student-teacher involvement in the learning process. This is mainly achieved through the application of wide-ranging formative assessment strategies that allow students to be actively engaged in learning while being challenged to think critically. This paper, therefore, aims to understand how the eclectic assessment practices of academics in a School of Education in South Africa contributed to preparing pre-service teachers for teaching. It explores the learning experiences of fourth-year Accounting students through eclectic formative assessment strategies. A qualitative case study approach within an interpretive paradigm was employed to explore the experiences of thirty purposively selected Accounting pre-service teachers. Framed by principled eclecticism, a thematic analysis of transcripts generated from semi-structured individual telephonic interviews with thirty students as well as WhatsApp-based focused group interviews was conducted to elicit students' views on their eclectic formative assessment practices. Insights from this study will be useful to academics who aim to produce future teachers with the requisite skills to train the future workforce of any country. Teacher education institutions and other Higher Education institutions would also stand to benefit from the outcome which has the potential to guide policy directions aimed at enhancing the quality of the undergraduate which is their key mandate. Finally, this paper contributes knowledge to the scholarship of eclectic formative assessment practices from the viewpoint of the students for which knowledge is currently sparse.

**Keywords**: Eclectic formative assessment practices, Formative assessment practices, Pre-service teachers experiences, Principled eclecticism



717 Enhancing Adherence to Continuous Assessment Standards: Insights from the 2023 Moderation Exercise in Zambian Colleges of Education

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The study investigated adherence to continuous assessment requirements in Zambian Colleges of Education, using insights from the 2023 Moderation Exercise. Employing a mixed methods approach, it analysed secondary quantitative and qualitative data from the moderation exercise conducted by the Examinations Council of Zambia. The sample comprised 12 colleges, contributing to 364 courses across early childhood education, primary education, and secondary education programs. The findings revealed four main themes: document availability and quality, task variety and alignment, marking schemes and practices, and feedback provision. Despite high document availability, issues with quality and completeness persist, highlighting the need for well-labelled, complete documents. Additionally, there is a lack of task variety and alignment, inconsistent marking practices, and a need for more constructive feedback. These findings underscore the importance of diverse, well-aligned tasks, comprehensive marking schemes, and detailed feedback for effective continuous assessment. The study suggests implications for policy and practice, urging revision of quidelines to emphasize document quality and proper maintenance. Colleges should diversify assessment methods, ensure alignment with syllabus objectives, and provide professional development programs to improve marking practices and feedback provision. Acknowledging limitations, including reliance on secondary data and contextual specificity, the study calls for future research to include longitudinal and comparative studies to deepen understanding of continuous assessment practices and their impact on student learning outcomes.

**Keywords**: Continuous assessment, Colleges of Education, Moderation exercise, Document availability, Task variety, Marking schemes, Feedback provision



718 Exploring Levels of Language Complexity in Mathematics Questions: The Case of Probability and Counting Principles in the South Africa National Senior Certificate Examination Papers (2020-2023)

#### Nomsa Zindela and Keamogetse Moganedi

This study investigates the relationship between language complexity and mathematical problem-solving focusing on questions on Probability and Counting Principles in the NSC (National Senior Certificate) exit examination papers from 2020-2023. The complexity of language within mathematical questions has been recognized as a potential barrier to effective problem-solving, particularly for learners for whom English is a second language. Examining language complexity within mathematical questions is therefore pivotal given the impact this has on learners' performance, particularly in high states national assessment. Through a systematic linguistic analysis of mathematical problems within the context of probability and counting principles, this research aims to determine the nuanced layers of linguistic complexity embedded within these problems and their implications for learners. Drawing upon theoretical frameworks grounded in systemic functional linguistics, and mathematics education, this study employs a mixed-methods approach. Firstly, a quantitative analysis was conducted to identify and quantify linguistic features symbolic of complexity within a corpus of probability and counting principles problem questions. These features include syntactic structures, lexical density, and semantic complexity. Secondly, a qualitative analysis was used to examine the grammatical competencies required to understand solving these problems and understanding how linguistic complexity influences comprehension and problem-solving strategies. By comparing national examination papers from 2020-2023, this study shows the trends in language complexity over time and implications for learner performance. The findings of this research have shed light on the complex interplay between language and mathematics, particularly within the domain of probability and counting principles. By elucidating the specific linguistic challenges inherent in mathematical problemsolving, educators and examiners can gain insights into effective instructional strategies to scaffold learners' comprehension and problem-solving abilities. This study seeks to contribute to the ongoing discourse on English across the curriculum on how mathematics education can be enhanced by addressing the multifaceted nature of language complexity in mathematical contexts.

**Keywords**: NCS, Mathematics, assessment, language complexity, semantic complexity, probability and counting principles



## 720 Exploring Strategies to Impact Teaching and Learning of History A Western Cape Education Department Case Study

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The National Senior Certificate (NSC) serves as the final exit qualification at the end of the Further Education and Training (FET) phase and is a crucial steppingstone for candidates to gain access to higher education, study opportunities and the world of work. Whether embarking on academic journeys or entering the workplace, the NSC supplies a gauge of the level of knowledge and competencies of candidates. Public examinations in South Africa are governed by national legislation, The National Policy Pertaining to the Conduct, Administration and Management of the National Senior Certificate Examination. A key process in regulating the principles of assessment is the marking of candidates answer scripts so they can be resulted for the examination. The competency of markers who apply the national approved marking guidelines ensures the integrity and reliability of the marking process, thereby not compromising any candidate. The outcomes of the marking of the NSC examinations could be an indicator of teaching and learning at a national and provincial level. It is therefore necessary to ensure that the marking in the Western Cape complies with predetermined standards and be robustly monitored and reported on with the view to impact teaching and learning in the classroom. In 2023, a History marking model was necessitated by insufficient, competent, History markers. The model allowed for all markers to mark both Paper 1 and Paper 2 as opposed to, historically, certain markers marking either Paper 1 or Paper 2. An analysis of errors made by History markers during the marking of the November 2023 NSC examination prompted the WCED to conduct further studies to establish whether the cohort's Provincial standing performance in History in the Western Cape could be attributed to various reasons e.g. the curriculum itself, poor teaching, or poor marking. The purpose of the study is to identify possible causes for this performance and present strategies for the WCED to implement to impact teaching and learning with the view of candidates improving their performance in History. This paper reports on the findings of the case study into the November 2023 marking of History. The study recommends that the learnings exposed from marking should transcend into the classroom. Particular attention must be paid to teaching pedagogy where learners are able to apply knowledge and skills rather than regurgitate facts.

Keywords: National Senior Certificate Examinations, Policy, Marking, Classroom



## Achieving Accountability and Quality Education Through Assessments: A Comprehensive Exploration of Assessment Practices in Zambia

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This paper explores the role of assessments in achieving accountability and quality education provision in Zambia. The attainment of quality education is dependent upon the establishment of systems that ensure transparency, efficacy and accountability within the education system at all levels. Assessments play a crucial role in achieving accountability and ensuring quality education provision. Despite efforts to provide a comprehensive assessment system that has evaluation procedures that can assess more intellectual capacities, attitudinal and dispositional outcomes in areas of innovation, problem solving, self-initiated and self-sustaining, Zambia grapples with issues of equity and inclusivity in assessment practices which pose significant obstacles to achieving fair and meaningful evaluation of assessment system that promotes accountability and enhances quality education provision. Employing descriptive survey design and desk review of different collections of literature, policies, frameworks and reports, the study aims to illuminate both the strengths and weaknesses inherent in the current assessment practices within the Zambian context. Furthermore, the study endeavours to unearth the challenges impeding effective assessment practices, while simultaneously proposing strategic recommendations aimed at enhancing the existing shortcomings. The findings underscore the importance of robust assessments practices in augmenting accountability and ensuring quality education outcomes, providing valuable insights for policymakers, educators and stakeholders invested in advancing accountability and quality education provision through assessments. In addition, the study recommends incorporation of teacher training and all stakeholders involved in assessment practices, improve of existing infrastructure, construction and equipping of laboratories with equipment and apparatus, enhancing monitoring and supervision, re-thinking stipulated guidelines on assessment implementation and utilization of funds in schools. Additionally, re-consideration of resource allocation and material provision, coupled with feedback provision and analysis of capacities should be implemented in order for Zambia to develop a pathway towards a more equitable, inclusive and high-quality education system that empowers all learners to realize their maximum potential.

**Keywords**: Accountability, Assessments, School Based Assessments, Examinations, Quality Education



#### 724 Using Data and Learning Analytics to Inform First-Year Student Support Programme

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The 'learning and mathematics knowledge' diversity of our students entering university is of concern. Narrowing this 'diversity' may be accelerated through student engagement and feedback which is enhanced with adaptive online assessment that is formative and informed by data and learning analytics. This study focuses on the use of assessment to inform student support, and in particular, the approach of leveraging data and learning analytics to enhance a first-year student support programme. The paper draws on two implementation case studies using high-stakes assessment data, course-level data analytics, and an Al-powered learning environment. The combination of course and student-level reports and relative importance data from the National Benchmark Test (NBT) assisted in crafting a tailored student experience, taking into consideration students' varying geographical, social, and academic backgrounds. Both case studies involved the integration of ALEKS, a dynamic adaptive learning platform, but the context and the nature of engagement were different. Case Study 1: Tailored ALEKS modules were provided to first-year engineering mathematics students at the University of Cape Town (UCT) for a semester. The ALEKS modules provided bridging topics and were mainly aligned with the material for the first Test. These modules were a mandatory requirement to strengthen pre-calculus skills. 70% (of the 542 students) completed the initial knowledge check during the initial six weeks of the course. After the first test, 89 students transitioned to a course on the extended curriculum programme. A comparison between NBT and ALEKS data with written tests was conducted on these students, and their responses to the survey were collected. Initial findings indicate that the students who performed better in their first Test were those who spent more time in ALEKS learning more topics. It appears that students who mastered the ALEKS topics before Test 1 were better prepared for and more successful in learning Calculus 1. Case Study 2: ALEKS was introduced as part of a Mathematics course taken by first-year Science Extended Curriculum students at Rhodes University (RU). The ALEKS modules were tailor-made for the students to provide support in strengthening the mathematical skills required at university. All 56 students completed the initial knowledge check and were expected to complete the modules by the end of semester 1. Feedback on engagement with ALEKS and analysis of data from assessments (NBT, ALEKS, Tests, Exam) show that the students who performed better in the tests and exam were those who had spent more time on ALEKS and had learned more topics. Additionally, it would appear that the students needing more practice to improve their mathematical skills spent more time doing so with the help of ALEKS and were able to master more mathematical topics and improve their learning.

**Keywords**: ALEKS; student support; adaptive learning; adaptive assessment; online learning; intelligent tutoring system



Evaluating the role of assessment in improving accountability and quality of education provision in Accounting Education. A Management Perspective

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Teacher-learner accountability is important in promoting public confidence and trust in educational outcomes. As such, with very little control over what happens in the learning environment, educational authorities, and the public need a mechanism to evaluate the efforts of learners and teachers in teaching and learning and to hold them accountable. In pursuit of this mechanism, research findings on assessment provide conclusive and compelling evidence on its significance as a reliable instrument to measure the quality of educational practice and provision, the progress and extent of the attainment of educational objectives. Given the above, this paper sought to evaluate the role of assessment in improving accountability and quality of education provision. Grounded in interpretivism and phenomenology, data was collected from five accounting teachers, five Heads of Department, three Learning Area Managers and five school principals using focus group interviews. A thematic and content analysis of data reaffirmed assessment as indispensable in promoting accountability and improving the quality of education provision. This finding finds expression in the rationale of assessment which demonstrates a strong desire and intent to promote accountability and improve the quality of education. This theme is also evident in the summation of the purposes of assessment which point to an ultimate and enduring goal of holding all the stakeholders involved in education accountable for academic results and the quality of education provision. While the role of assessment in improving accountability and the quality of education provision has not been contested in this study, this paper submits that for this role to have a sustainable maximal and profound effect, there is a need for continuous reporting, monitoring and purposeful use of assessment outcomes. The paper further recommends the resetting of educational goals and academic targets by educators and learners at classroom level and by Heads of Departments, Learning Area Managers and School principals at school level after each assessment cycle. In this way, the study anticipates that the momentum and gains of assessment will be preserved, sustained, and elevated to higher levels of expectations. In conclusion, for assessment to serve its purpose and to improve accountability and quality of education provision, it ought to provide for all cognitive levels of learners and observe the principles that inform its implementation.

Keywords: Assessment; Accountability; Quality Education; Accounting Education



#### 730 Investigating the Role of Public Examinations Towards Quality Education in Eswatini

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Literature indicates that there is increasing criticism of public examinations which has also brought into question its role in improving the quality of education. Consequently, there have been calls at times to remove public examinations because they tend to promote rote learning and motivate students and teachers to focus on achieving high marks rather than on acquiring key skills. Educational reform movements and groups representing both linguistically and culturally diverse students and students with special education needs have also advocated for changes in approaches to assessment. This paper interrogates these calls by examining the role of public examinations on improving the quality education in Eswatini. It argues that public examinations continue to play a major role in the evolution of modern education in Eswatini, Among other functions, public examinations are used to select students for successive levels in the education system and contribute towards achieving quality education as spelt out by Sustainable Development Goal 4. Despite this central role, many criticisms have been made against the quality and role of public examinations. Using the qualitative methodology approach the author conducts an in-depth analysis to show how public examinations are at the core of any education system. Purposive and convenience sampling were used as data collection methods. Using a questionnaire, teachers and head teachers responded to an online survey (N=176) documenting their views on the role of public examinations towards quality education in Eswatini. In-depth interviews and focused group discussions were also used as data collection methods. Data was analysed using a thematic approach. The findings of the study reveal that examining boards should consider implementing alternative forms of assessment to ensure equity in educational opportunities and strive towards educational excellence for all learners as it allows them to perform, create, produce and/or do. The implementation of alternative assessment will play an important positive role in supporting, promoting and improving student learning. Additionally, information from these alternative assessment procedures can constitute the sole basis for much educational and instructional decision-making. The paper concludes that public examinations play an important role towards improving the quality of education in Eswatini. It recommends that examinations should continue to evolve to meet the ever changing needs of the curriculum and that formative and summative assessment should co-exist to help towards student achievement.

Keywords: public examination, quality education, alternative assessment



#### 731 System transformation for better accountability – evidence from South Asia Region

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Large-scale assessments have a key role in accountability. They provide credible information that can be used to hold the education system and its stakeholders accountable for student achievement. Results from international and national large-scale assessments can be used to monitor progress in improving quality and equity in school education and to evaluate the effectiveness of system-wide policies and programmes. Gathering learning data from extensive assessments is a relatively novel occurrence for countries in South Asia that have started their own national assessments in the last two decades. However, education systems in these countries face two major challenges - limited capacities to develop and implement robust assessments on a broad range of skills and attributes and the effective use of evidence to inform educational policies and practices to better prepare all students for life and work in the 21st century. Our study reviewed the findings of the national assessments from the region to better understand the link between student achievement and factors associated with it. Evidence from Bangladesh highlights that teachers' knowledge and ability in educational assessments, and head teachers' academic interactions with teachers have a higher degree of association with learning (medium to large effect size). There are similar findings for school heads from India. These findings are in sync with John Hattie's study, where he found that Collective Teacher Efficacy, which is the collective belief of teachers in their ability to positively affect students, has the highest impact on student achievement. We argue that large-scale assessments provide crucial information on the accountability of the education system as a whole. While teachers are central to improving student learning, they cannot be held responsible for student outcomes without being empowered. The system needs to strengthen teacher capacity, along with other system-level interventions. The performance of individual schools and teachers can be understood bearing in mind the differences in school contexts and student background. In conclusion, LSA has the potential to support critical reforms and increase accountability for the improvement of the overall education system especially through the empowerment of teachers.

**Keywords**: Large Scale Assessments (LSA), accountability, Collective Teacher Efficacy, system strengthening,



## 732 Can the Tail Wag the Dog? – A case for Assessment Review in the South African Context

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The assessment landscape in South African schools is dominated by examinations, as is the case in most developing education systems. This results in teachers teaching to the test and much of the efforts relating to improving learning outcomes are directed to improving examination results. This typifies the "examination tail wagging the curriculum (teaching and learning) dog". Hence, learners exit the education system being trained to respond to an examination and not being able to apply the knowledge and skills required for real life situations and learners struggle to cope with the demands of higher education and the world of work.

This paper will attempt to argue how the negative consequence of an examination driven system can be turned around by:

Changing the focus from examinations to more relevant forms of assessment; Utilising the principle of "what gets measured, gets taught", to promote assessment forms that are aligned to the skills and competencies articulated in the curriculum; Moving the attention from examinations to alternative forms of assessment that are in the main, school-based;

Integrating summative and formative assessment forms, which is underpinned by a culture of Assessment for Learning (AfL);

Proposing amendments to the quality assurance regime implemented by Umalusi, the Quality Assurance Council to ensure that School Based Assessment (SBA) is moderated appropriately.

The paper will argue that if the tail (the assessment) is accurately aligned to the dog (curriculum, teaching and learning) then the tail can wag the dog. The methodology to be adopted in this paper will in the main be a literature study which will be supported by evidence from the South African context.

**Keywords**: Assessment; curriculum, teaching, learning, alignment



## 733 The Centrality of Standard Setting in the Monitoring and Evaluation of Examination and Assessment Practices.

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The South African schooling system functions within a diverse environment based on resource provisioning, urban, semi-urban and rural divides and capacity of officials and educators. The implementation of standards in this diverse context, which is, to a large extent linked to the historical past of the country where divisions in accordance to race, creed, religion etc were used as instruments to propel separate development of communities, poses a challenge as the various communities are at different levels of development and therefore present diverse context. The Department of Basic Education (DBE) has grappled with these challenges particularly from the perspective of implementing uniform standards across the nine Provincial Education Departments (PEDs). However, the setting of standards in the management of the conduct and administration of national examinations in this diverse context by the DBE has proved to be very critical, and valuable lessons have been learnt as the monitoring and evaluation model based on standard setting, mediation, support and coordination, evaluation and feedback is implemented.

This paper will provide an account of how the standard setting model is implemented in this diverse context by looking at the following processes:

Setting of the standards through national consensus.

Mediation of standards to ensure common understanding of the standards to be implemented.

Support and coordination, as pivotal to the implementation of the standards across the nine Provincial Education Departments (PEDs); seventy five districts and over 8000 schools offering the National Senior Certificate examination.

Monitoring and evaluation utilising various, appropriate strategies implemented to ensure coverage of all critical components of the examination and assessment process.

Regular feedback emanating from the monitoring and evaluation to the implementers and administrators in the system and the importance of ensuring that the feedback loop creates a iterative process.

**Keywords**: Standards, monitoring, evaluation, support, coordination, feedback



Assessment of 21st-century Skills as Accountability in Education: Reflecting on Africa's Contextualization and Assessment Approaches

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Driven by a commitment to achieving Sustainable Development Goal 4, the education systems of Kenya, Tanzania, and Uganda have broadened their curricula to prepare learners for a changing world. This curriculum reform is prompting broader discussions on education provision and potential reforms in pedagogy and assessment. Actions for Life Skills and Values in East Africa (ALiVE) supports these efforts by embedding 21st-century skills into curriculum, assessment, and teacher education. ALiVE's contextualized development of measurements for problem-solving, self-awareness, collaboration, and respect, evidenced by a household assessment of over 45,000 adolescents, demonstrates the transformative potential of assessment in enhancing educational accountability and quality. A systematic literature review by ALiVE explored assessment approaches for measuring twenty-first-century skills in Sub-Saharan Africa, revealing five key approaches: scenario-based, questionnaire, video recording and direct observation, portfolio, and technology-based assessments, alongside seven unique assessment tools. The majority of these tools served summative purposes, while some supported formative assessment. Scenario-based and self-report methods were the most commonly used, with scenario-based assessments providing compelling evidence of proficiency and effectiveness in task development, analysis, and scoring rubrics. This paper presents a unique examination of the ALiVE contextualization and assessment approach, comparing it with other approaches identified in the review. The insights provided offer a fresh perspective and valuable methods for assessing 21st-century skills in Sub-Saharan Africa. The aim is to inspire a shift in the assessment of these competencies within regional education systems, making a significant contribution to the field.

 $\textbf{Keywords} \hbox{: Assessment approaches, Twenty-first-century skills, Education systems} \\$ 



Prospects and Challenges of Conducting the West African Senior School Certificate Examination for School Candidates (WASSCE SC) as a Computer-based examination (CBE) by West African Examinations Council in The Gambia

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This study explored the prospects and challenges of conducting the West African Senior School Certificate Examination (WASSCE) for school candidates as a computer-based examination (CBE) in The Gambia. The population included heads of schools, teachers, 2022 WASSCE candidates, officials from the Ministry of Basic and Secondary Education (MoBSE), and WAEC. Using multi-stage and purposive sampling, 374 participants were selected. Data was gathered via questionnaires and interviews, analyzed through frequency distributions and thematic approaches. Findings indicate a high potential for CBE implementation, offering speed, cost-efficiency, and reduced malpractice. However, inadequate school facilities and lack of preparedness by MoBSE and WAEC were significant barriers. Recommendations include drafting a CBE policy, introducing ICT as a subject, training WAEC staff, creating stakeholder awareness, and piloting CBE in selected schools. This shift towards CBE is vital for modernizing educational assessment in The Gambia.

Keywords: Computer-based examination, Stakeholders, Prospects, WASSCE



## 738 Development of a Comprehensive Evaluation Framework for Technical Working Drawings in Architectural Technology Education

#### Reetumetsi Malefane

Within the space of Architectural Education, the assessment of technical working drawings is a focal matter that is both challenging, marked by a lack of consistency, and a structured framework, and crucial at being dimensional both in teaching objectives and aligning with the standards of architectural profession. This study is aimed at bringing the various issues of assessment of Technical Architectural drawings through the development and implementation of a comprehensive evaluation rubric tailored to the unique requirements of working drawing sets for the subject of Studio Work. The research employs a mixed-method methodology, in which the sample of students undertaking architectural technology course is used to implement the rubric in a realistic learning circumstance. Analysis of the results demonstrate the effectiveness of the rubric in providing a fair and all-round assessment aligned with Municipal guidelines requirements, drafting standards, technical competency, and compliance with the National Building Regulations, all rooted in fundamental architectural principles. The study highlight the fact that not only there is a uniformity in the marking of different papers but they also show that improvement in examination and understanding of students. This conclusion highlights the vitality of the use of a rigorous structure for assessment of technical drawings, such a method ensuring a more practical approach to teaching and a higher standards alignment to the professional world, consequently increasing the overall quality of the educational basis for aspiring architects.



## Breaking down the walls! – Building up an assessment facelift through the General Education Certificate (GEC) that is being piloted in South Africa

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The assessment landscape in South Africa is changing its face. The scenery is about to implode and new foundations of innovation and creativity are ready to flood a desperately dry lowland escaping into a plateau of relevance and currency. No doubt, the introduction of the much-vaunted General Education Certificate (GEC) programme is going to raise eyebrows and blockers will throw up their best defences to keep the walls up. The GEC is punted as an important qualification to improve career pathing, employability and reduce dropout rates of South African youth, allowing for learners, after 10 years of schooling (Grade R-9), to be recognised for their levels of curriculum attainment, general capabilities, and talents – laying the grounds for building a capable and skilled workforce. This paper using the data and findings from the GEC pilot study will attempt to show how the walls of a typically, entrenched examination driven system can be broken down by:

Changing the focus from examinations to more relevant and integrated forms of assessment that are in the main, school based;

Setting appropriate curriculum/assessment standards to be achieved by the end of Grade 9;

Enabling learners to access further education pathways linked to a 3-stream model; Integrating and facilitating the assessment of 21st century skills (critical thinking; creative thinking; collaboration; communication; and metacognition);

Awarding learners a report card/certificate that reflects the skills, talents and capabilities inclusive of all learners and assisting them transition from general education to further education and training.

The paper will argue that if entrenched walls are broken down, a changed assessment landscape is built; and this is much needed.

**Keywords**: Assessment; GEC, curriculum, innovation, change, 21st century skills, inclinations.



#### 740 Emotions in assessment: a systematic literature review

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Achievement emotions are integral part of candidates' testing experience but are often overlooked. In order to gain a more comprehensive picture of the emotional experience of test candidates, that may include both positive and negative emotions, we have conducted a systematic review of the literature addressing three main questions:

- (1) What emotions do candidates experience throughout the assessment process?
- (2) Do candidates' emotions impact their academic performance?
- (3) What factors affect the relationship between tests and emotions?

Our results indicate that negative emotions were the most measured, but positive emotions are nonetheless also present. In addition, there seems to be a relationship between emotions and performance, that is appears to be contingent upon the valence of the emotions, so that negative emotions may lead to lower exam performance while positive emotions may lead to higher exam performance. However, the relationship between emotions and achievement may not always be straightforward, as factors related to the candidate, the task (or test), the test and learning environment and the measurement instrument could impact the emotions a candidate experiences and their performance. These results provide a more complete overview of the emotional experience of test candidates, by focusing on both positive and negative emotions and through the analysis of potential intervening factors in the relationship between tests and emotions. Future research could further develop these initial findings, for example by addressing specific moderating factors or by focusing on individual emotions.



#### 743 Use of a Generative AI model in the marking of Ordinary level English composition

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English language is one of the mostly used formal business language in Africa and the world at large. Passing of English language as a subject at Ordinary level therefore becomes a measure of a candidates pass of meeting minimum Ordinary level requirements in most countries for progression to high school or tertiary learning institutions. Due to this near global position of high regard to competency in English language, the marking of English language itself carries more important weight in the assessment journey of a candidate's outcome. The problem of marker subjectivity and emotions during the marking of the subject presents a contribution to the overall score issued to a candidate. This can yield in either positive or negative impact depending on the mood of the marker at that time. Whilst several mitigation measures have been put in place by Examinations assess boards in ensuring accuracy and fairness during marking, the human related risk of jeopardy remains present and of impact to candidates' performance. This paper therefore aims to solve the problem of human nature related problems of subjectivity in the marking of Ordinary level English Composition by the use of a Large Language Models (LLMs) Generative AI in scoring a candidate. The AI model uses a knowledge base of various Exam boards in scoring different compositions which are further given to human markers. The resultant scores are analyzed for decision making for piloting digital assessment in high stakes marking of exams in general using AI in an era of digital transformation. This research is a concept paper that can be used by AEAA members to enhance quality of Assessments by exploiting the benefits of emerging trends in technology and digital transformations in the 4th Industrial Revolution.

**Keywords**: Artificial Intelligence, Generative Models, Large Language Models, digital assessment



## 744 The Sounds of Silence, Cuito Cuanavale: Analysis of South African History textbooks and Assessment instruments

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This article analyses three prescribed Grade 12 history textbooks in respect of the assessment of critical aspects of the South Africa History. The textbooks and assessment instruments are based on the Curriculum and Assessment Policy Statement (CAPS). The study focuses on the silences on texts and voices on the battle of Cuito Cuanavale between 1987 and 1988 which was part of the South African Border war or Second Angolan war of independence which have not being adequately reflected on assessment instruments. The Critical Discourse Analysis (CDA) approach has been used in this study to uncover the textual silences in the representation of the battle of Cuito Cuanavale: the secrets, casualties and silences relating to the normalisation of the battle of Cuito Cuanavale, a battle trivialised and disown by SADF Generals as part of the hegemonic project of apartheid. Findings of this study are that, firstly, there are rhetorical silences in the representation of battle of Cuito Cuanavale and Angolan war by the three textbooks and assessment instruments. The three textbooks and assessment instruments failed to effectively encapsulate the four versions of the war, namely, SADF was defeated advanced by Cuban leader, Fidel Casto and other historians, that SADF won the war supported by SADF Generals. that Cuito Cuanavale never took place supported by SADF Generals and finally that there was a stalemate version supported by Journalists and other historians. Secondly, the three textbooks use mostly secondary sources in the assessment of the battle Cuito Cuanavale and had ignored the multiple voices of young white conscripts and young MKs who participated in the Angolan War of Independence. Thirdly, the battle of Cuito Cuanavale had been sanitised by rhetorical silences and understatement, institutionalised and negotiated silences by Generals, Historians and Journalists and assessment experts who attempted to reduce the largest war in Southern Africa into a small skirmish of the Angolan war. Finally, it was found that a large body of literature written by historians, political scientists and journalists in South Africa and around the world appears to support the Cuban version of Cuito Cuanavale that South African Defence Force (SADF) was defeated by Cuban and FAPLA forces. It is these silences that constraints textbooks and assessment instruments from proving appropriate texts for engaging learners in the concept of historical thinking or doing history.



## 745 Towards a quality assurance framework for online assessments of business education in the FET Phase

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The COVID-19 pandemic has precipitated a shift to online assessments for educational institutions worldwide and exacerbated challenges, such as accessibility and legality, identity security and academic dishonesty. In South Africa, the question of the quality of online assessments in schools remains a central concern, partly due to the lack of consensus on the criteria establishing such quality. That said, the objective of this study is to establish a framework to create transparency and consistency when any form of online assessment is applied in business education in the FET band (Grade 10 to 12). The methodology employed consists of an analysis of online assessment success factors through a systematic review of the existing literature on online assessment over a five-year period from 2018 to 2023. Biggs' (1993) classification scheme will be applied to illustrate the conceptualisation of the framework to provide minimum standards and to guide business education teachers towards reliable and secure practice of online assessments. The proposed framework is based on the requirements of the Standards and Quality Assurance for General and Further Education and Training Umalusi Policy, to ensure that online assessment processes are learner-centred, authentic, trustworthy and reliable. Moreover, the value of such a framework is two-fold, first to assist business education teachers in the implementation of online assessments procedures and second to support quality assurance in the review and evaluation of online assessments procedures.





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# ABOUT CENTURY CITY CONVENTION CENTRE AND HOTEL, CAPE TOWN

Century City Conference Centre is An award-winning function venue that is versatile, high-tech, personal, fully equipped and sustainable. It boasts an ideal central location at the heart of Cape Town's vibrant Century City precinct, and is conveniently situated close to all of the Mother City's key travel services and attractions. Century City Conference Centre is the only conference centre in Cape Town that has been developed as part of a mixed-use development with the award of a 4-Star Green Star Certification by the Green Building Council of South Africa.

The plenary will be held at Hall A+B. The breakaway venues are Hall ABC and Meeting Room 11 and 8+9.

#### Safety and Security:

One of Century City's greatest attractions to those living, working and visiting here, is that it is a safe and secure precinct. For a quick overview of safety and security in the precinct, please click here.

#### **Closest hospital:**

Intercare Day Hospital - 1.3 km from Century City Conference Centre and Hotel

There is a first aid room located in the Century City Conference Centre and Hotel.

#### ATM's:

There is an ABSA ATM located at the Century City Conference Centre and Hotel. All the major banks and money exchange facilities are located in the Canal Walk shopping centre.

The Canal Walk shopping centre is located 1km from the Century City Conference Centre and Hotel

**Intaka Island:** located 1.9 km from the Century City Conference Centre and Hotel

**Century City Jogging Trail:** Join the trail from right outside the Century City Conference Centre and Hotels, through Ratanga Park and along the Canal. Century City's wonderful network of walking, running, and cycling trails is a constant invitation to enjoy outdoor exercise in a pristine environment.

Virgin Active Gym: - located 100m from the Century City Conference Centre and Hotels



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**40TH AEAA ANNUAL CONFERENCE** 

**PROGRAMME AND ABSTRACTS** 



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## **COMPARING NQF LEVEL 4**

## **National Senior Certificate (NSC)**

# National Certificate (Vocational) - NC(V) LEVEL 4

# **PURPOSE OF THE QUALIFICATION**

- Provide access to further education (higher, vocational and occupation)
- Facilitate transition to the workplace
- Equip learners with knowledge, skills and values for self-fulfilment and meaningful participation in society.
- Provide access to further education (occupational and higher education)
- Facilitate transition to the workplace
- Affirm learners' skills and knowledge to contribute in the workplace and society.

# **DURATION**

Minimum of three years

- Grade 10
- Grade 11
- Grade 12

Each level takes a minimum of 1 year

Minimum of three years

- NC(V) Level 2
- NC(V) Level 3
- NC(V) Level 4

Each level takes a minimum of 1 year

# MINIMUM SUBJESTS REQUIRED

Minimum of 7 subjects:

- Home Language
- 1 Official Language at First Additional Language level
- Mathematics/Mathematical Literacy
- Life Orientation
- 3 Subjects from the list of approved NSC subjects.

Minimum of 7 subjects:

- Mathematics/Mathematical Literacy
- English First Additional language
- Life skills and computer literacy.
- 4 vocational subjects for a specific field of study.

NOTE: The vocational subjects integrate practical and theory at all levels.

# **PASS REQUIREMENTS**

40% - Minimum in 3 subjects including Home Language

30% - Minimum in 3 subjects.

**30%** - minimum in Mathematics/Mathematical Literacy

40% - minimum in the required Official Language

40% - minimum in Life Skills

50% - minimum in each of the 4 vocational subjects

# WHERE IS IT OFFERED

Public Schools or independent schools accredited by Umalusi

- Public institutions like the Community Learning Centres (previously called ABET Centres) in each province.
- companies/industries private offer qualification in their training centres or through private providers. Employees are then registered to write examinations through the private assessment bodies.





Umalusi\_RSA



in X @UmalusiSA

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