Postgraduate School

Research Capacity Development Unit

Sponsored by : The Strategic Initiatives and Administration Division, University of Johannesburg

National Visualise *your* thesis™

DATE ■ 28 February 2024 TIME ■ 09:00 - 14:00

VENUE ■ Ubuntu Chambers, Madibeng Building, Auckland Park Kingsway Campus, University of Johannesburg

A word of welcome from the Director of the Research Capacity Development Unit

Professor Penny Govender

Dear VYT National Attendees

Welcome to the First National Visualise Your Thesis (VYT) competition. Currently, there have only been two tracks of the VYT competition, Institutional and International and this event will mark the First South African National VYT competition. We are extremely thrilled to be hosting this momentous event and grateful to all of you for being a part of pioneering this initiative.

The International VYT competition, developed and hosted annually by the University of Melbourne, has become a widely adopted postgraduate activity in many Higher Education Institutions (HEI's) globally. VYT is an exciting opportunity for participants to showcase their research in an innovative, unique, and creative way. The format for the VYT competition involves a 60- second, eye-catching, video presentation by the participant that succinctly describes their research, and its potential benefits, to a non-specialist audience.

In addition to the University of Johannesburg, the participating universities for this event include University of Pretoria and North-West University. Our appreciation goes out to all participants and representatives for their interest in this event and for their preparation and participation. We are grateful to the organizing committee, staff, sponsors and judges for their hard work and dedication towards the preparation and execution of this event. Furthermore, I would like to thank the presenters for showing an interest in this conference and for their preparation and participation. To all event attendees, thank you for joining us and providing support for this event.

We have a great programme of topics lined up, including talks from distinguished keynote speakers, showcasing of participant presentations and an awards ceremony to conclude the day. We are excited to be hosting our next generation of leaders and pioneers in research. We hope you have a stimulating and informative experience at the First South African National VYT event!

Warm regards,

Prof Penny Govender

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Venue Information

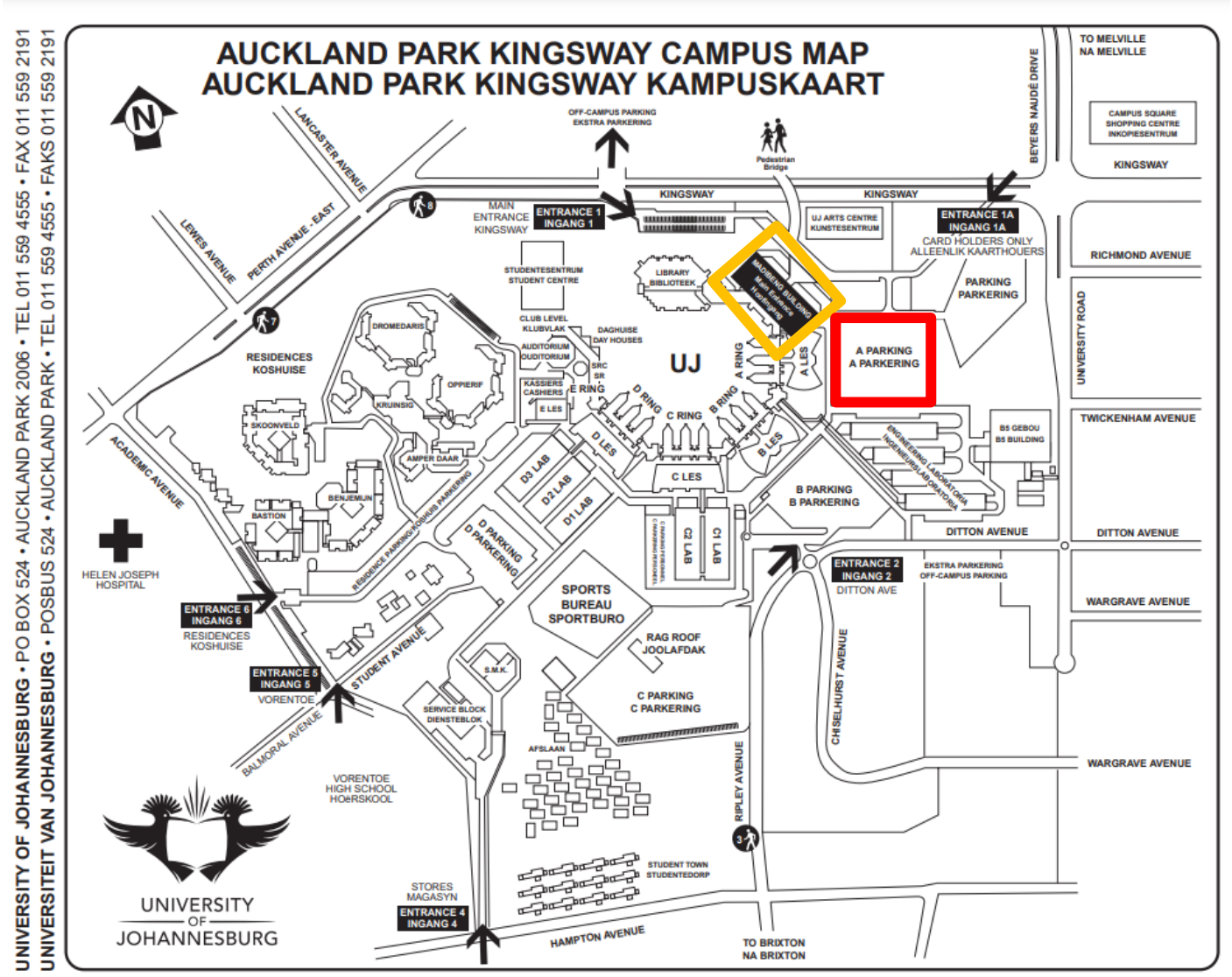
The National VYT 2023 competition will be held at the University of Johannesburg's Auckland Park Kingsway Campus at the Ubuntu Chambers, Madibeng building (Corner Kingsway and University Road, Auckland Park, Johannesburg)**.**

Parking: Provided directly outside the Postgraduate School, Akanya Building. Please inform the security guard of the event and venue you are attending.

Water, Tea and Coffee will be provided during the break (Please see programme on page 7).

Lunch: Buffet style - Served in the dining area from 12:00-14:00.

Please see entrances, parking (A Parking – highlighted in red) and venue on our campus map (highlighted in yellow below).



General Information

Attendee Registration

- When you arrive – please sign in at the registration table.
- You will receive an event **goodie bag** which will contain:
  - **Name tag** – please wear this throughout the day, to be identified by event attendees and venue.
  - Event Programme
  - Assorted gifts

Online Audience

- **Microsoft Teams Webinar Link: Click here**
- Once in Microsoft Teams webinar session, please ensure your mic is muted and your camera is switched off.
- For the schedule on presentation sessions (See programme on page 7 for assigned presentations and times).

Event feedback

- Please take the time to complete and submit the event feedback form before the event ends.
- If using a phone, please ensure to scroll across the screen to view all rating options.
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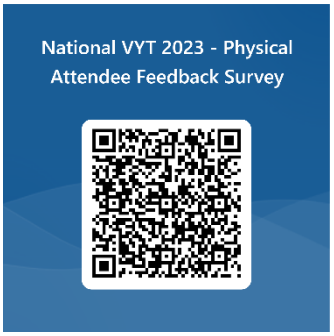


Link: Click here

Link: Click here

QR code

Open the built-in camera app on your phone.
Point the camera at the QR code.
Tap the banner that appears on your phone.

Disclaimer

1) All photos present in this event booklet were published after gaining consent from relevant parties.
2) 2) Entrants were requested to revise their abstract submissions as per the abstract template provided prior to compilation of the Book of Abstracts. It is also assumed all abstracts were checked and submitted with the approval of supervisors and co-supervisors. Abstracts published as is and not in the correct template means that the entrant did not comply with the instructions issued from the organizing committee and updated abstracts were unavailable at the time of publication of the Book of Abstracts.

Participating Universities

UNIVERSITY OF JOHANNESBURG

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

NWU
NORTH-WEST UNIVERSITY
NOORDWES-UNIVERSITEIT
YUNIBESITI YA BOKONE-BOPHIRIMA

Prizes

First Place	Second Place	Third Place	People's Choice Award
R 15 000	R 10 000	R 5000	R 3000

* All winners will receive trophies.
*Award and participation certificates, as well as cash prizes will be paid to recipients after the competition- date to be confirmed and communicated

People's Choice Award Voting

The People's Choice Award Voting will be made available at 10:45 and will close at 11:00. Voting will be done online using the link or QR code provided below. Voting is available to both the event attendees and the online audience.

- If using a phone, please ensure to scroll across the screen to view all rating options.

QR code

Open the built-in camera app on your phone.
Point the camera at the QR code.
Tap the banner that appears on your phone.

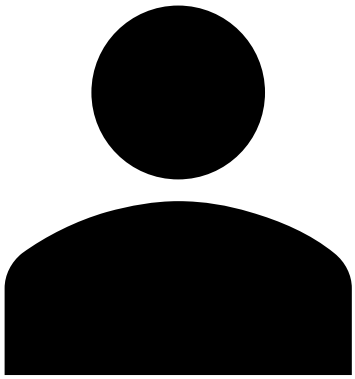
Link

Click here

National Visualise Your Thesis (VYT) 2023 - Event Programme

09:00-09:10	Opening and Welcome **– Prof Penny Govender (Director: Research Capacity Development Unit)**
09:10-09:20	Description of the VYT Competition and Introduction of Judges **– Dr Shandré Pillay (Master of Ceremonies)**
09:20-09:40	Keynote Address – **Dr Tilla Olifant (Tshwane University of Technology)**
09:40-09:55	VYT Presentations and Questions & Answer Session – Participants 1-3. Five minutes per participant. ***1*- Minenhle Maphumulo (University of Johannesburg)** ***2*- Carolyn Nadasen (University of Pretoria)** ***3*- Xola Ntlangula (University of Johannesburg)**
09:55-10:05	Break
10:05-10:15	Audience Competition Quiz and Prize Award
10:15-10:35	Keynote Address – **Ms Koketso Mogadima (2022 VYT UJ Second Place Winner)**
10:35-10:45	VYT Presentations and Questions & Answer Session – Participants 4-7. Five minutes per participant. ***4*- Gordon Sekano (North-West University)** ***5*- Sheldon Viviers (University of Pretoria)** ***6*- Lufuno Nemakhavhani (University of Johannesburg)** ***7*- Melody Mudukuti (University of Pretoria)**
10:45-11:00	Judge's Plenary Break-Away Session and Audience People's Choice Poll
11:00-11:20	Awards and Gift Giving Ceremony – **Prof Penny Govender and Judges**
11:20-11:30	Vote of Thanks and Closure – **Ms Tebogo Mokgokong**
11:30-12:00	Group Photos and Networking
12:00 – 14:00	Lunch

Meet Your Keynote Speakers



Dr Tilla Olifant holds a Doctorate in Language Practice (DDLP) from Tshwane University of Technology, an Honours Bachelor of Education (with a specialisation in Psycho-Educational Support) from UNISA and is recently completed a Postgraduate Diploma in Research Supervision at the University of Johannesburg. Her research interests are in the fields of language acquisition and learning, English FAL reading and writing practices, and English FAL Language instruction methods and learning strategies. Apart from teaching undergraduate students, she supervises postgraduate students and serves as an external assessor of master's dissertations and doctoral theses. She has delivered several academic papers at both national and international conferences, published numerous articles in peer-reviewed accredited journals, and continues to review articles for journal publication; as well as participate in school-based reading improvement research projects.

Koketso Mogadima holds a Bachelor of Arts (2018 – 2020) from the University of Pretoria, an Honours (2021 – 2021) in Psychology from the University of Johannesburg and is currently a 3rd year Master of Philosophy (2022 – 2024) student in Personal and Professional Leadership. Koketso endeavors to complete her MPhil despite the setbacks she has faced, such as the delay in her data collection. She believes that with commitment, she will soon submit her minor dissertation. Sometimes, Koketso wonders how she succeeded in presenting her MPhil research project in the VYT competition when her MPhil has been nothing short of sweat and tears. To her surprise, she achieved 2nd place, which reassured her to never give up. Her takeaway from all her experiences, especially the VYT competition, was the research toolkit and creative skillset that she developed which she intends to use for the 3MT competition in the near future as a PhD student. She endeavors to continue participating in events organised by the Research Capacity Development unit to accelerate her research presence. Beyond her postgraduate obligations, Koketso is passionate about teaching and learning. She is an online English tutor in her spare time and enjoys engaging with foreign students, which motivated her to enroll in the TEFL (Teaching English as a Foreign Language) Advanced Diploma. In essence, Koketso appreciates every opportunity that allows her to share her knowledge with others and nurture her growth.

Meet Your Judges

Head Judge

Dr Richard Devey is the Director of the Statistical Consultation Service, Postgraduate School, University of Johannesburg, South Africa. He completed his PhD in Development Policy and Management through the University of Manchester in 2015. Prior to this he completed Masters degrees in Development Studies (University of KwaZulu-Natal) and Biological Sciences (then University of Natal). He used either survey- or experiment-based research designs for these qualifications. In the role of statistical consultant, Richard provides quantitative research design and statistical analysis support for UJ staff and postgraduate students. Prior to moving to UJ he worked on numerous survey-based research projects, taught research methods, and supervised postgraduate students in the School of Development Studies, UKZN, Durban.

Judges

Dr Heather Goode currently works in the Department for Education Innovation at the University of Pretoria, where she supports business lecturers to improve their educational practice and support student success. She has lectured in both design and business programmes and supervises post-graduate research at a business school. Moreover, her ongoing research and involvement in quality assurance of online courses demonstrate her dedication to continuous learning and improvement in the field of education. Heather's experience in academic governance developed her capacity to develop policy and institutional strategy while aligning practices to policy principles, real world contexts and enabling student success. Heather's work reveals her dedication to the empowerment of both students and faculty, fostering environments that nurture critical thinking and professional development. Her Doctorate in Education explored what lecturers do to develop critical thinking in students and the professional development of faculty.

Mr Zander Janse van Rensburg is a lecturer in the North-West University's (NWU), where he contributes to the Institution's academic writing development strategy. In accordance with this strategy, he also established the NWU Writing Centre in 2014, where he still serves as manager. In 2019, the NWU Registrar appointed him as the university's subject specialist on plagiarism. His work, in this regard, focuses on forensic investigations into misconduct at all levels of academic practice. For these purposes, he has also led the development of specialised forensic software aimed at investigating various forms of academic misconduct. Further research interests include philosophical inquiry and, more specifically, hermeneutic phenomenology.

Dr Nazira Hoosen (PhD) is an academic, researcher and educational developer in the curriculum and teaching team at the Centre for Learning, Teaching and Development (CLTD) at Wits, based specifically within the Faculty of Health Sciences. She previously facilitated courses on policy, economics, and governance at the Wits School of Governance (WSG), consulted in government and taught widely in finance and digital transformation in Higher Education in South Africa and in the Middle East. Her PhD is within the field of interdisciplinary digital economy studies with a specific focus on the critical digital pedagogic (CDP) practice of academics. Her research focuses on the use of educational technologies and artificial intelligence (AI) in learning and teaching, academic identity, agency, continuous professional learning (CPL) and policy in higher education.

Meet Your Participants

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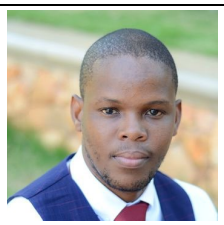	Gordon Sekano	North-West University	14
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Abstracts

Name: Minenhle
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Faculty: Science
Department: Geology
Supervisor(s): Prof. M.A, Elburg, Dr. C, Ballouard, Dr. M.J, Mayne

Steps to a greener future: The potential source/s of niobium-yttrium-fluorine (NYF) rich pegmatite rocks

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Keywords: rare-earth elements, pegmatites, green energy production, ORPB

As the world changes to more sustainable energy sources, there has been an increase in the importance of rare metals such as Li, Nb, Ta and rare earth elements (REE) [1]. This has renewed an interest in the re-evaluation of pegmatites as economically viable sources for these rare metals. The Namaqua Sector of the 1300-1000 Ma Namaqua-Natal Metamorphic Province in southern Africa, hosts the 450 km long Orange River pegmatite belt which consists of > 30 000 individual pegmatites [2]. The Kakamas Domain (KD), located in the central part of the Namaqua Sector, is dominated by the occurrence of niobium, yttrium, and fluorine (NYF)-enriched pegmatites [3], classified in this study as either simple or complex pegmatites based on their field appearance, texture and concentration of REE-bearing mineral phases. We provide in situ U-Pb ages along with Sm-Nd isotopic compositions from simple and complex pegmatites. We compare these data with literature data for whole-rock Sm-Nd isotopic compositions of country rocks in the Namaqua Sector to constrain the potential source rocks for NYF pegmatites in the KD. The present work will aid in understanding the source of NYF pegmatites and pegmatite related mineralisation in general, following up with modelling partial melting processes (Rcrust software) that could have resulted in pegmatite formation from the potential source rocks identified during this project. Lithium exploration is fast growing thus providing opportunities for future research to unlock new sources of lithium, develop more sustainable extraction methods, and ultimately facilitating the transition to a cleaner and more sustainable future. Considering the change of focus from fossil fuels to greener alternatives for energy production, there is undoubtedly an increasing demand for critical metals such as Li, Nb and REE. Therefore, understanding the reasons for enrichment of pegmatites in these elements will benefit South Africa's economy and thus the country at large.

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Supervisor(s): Prof June Serem, Dr Yvette Hlophe and Mr Keith Ncube

In vitro effects of MAZ-51 and epigallocatechin gallate on cellular morphology in B16F10 melanoma cells

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Keywords: melanoma, B16F10, anticancer, EGCG, MAZ-51

In 2020, the International Agency for Cancer Research documented ten million global cancer-related deaths, with over sixty thousand attributed to South African populations[1]. Melanoma, characterised by an aggressive malignancy and low survival rate, remains challenging to treat with limited effective therapeutics[2]. This study explored the potential use of epigallocatechin gallate (EGCG), a green tea flavonoid known for inhibiting tumour cell proliferation[3] through apoptotic induction, and 3-[[4-(dimethylamino)-1-naphthalenyl]methylene]-1,3dihydro-2H-indol-2-one (MAZ-51), a selective tyrosine kinase inhibitor targeting vascular endothelial growth factor receptor-3 (VEGFR-3) autophosphorylation[4]. The *in vitro* effects of EGCG (50–200 μM) and MAZ-51 (11–16 μM) were examined on mouse melanoma (B16F10), non-cancerous murine macrophage (RAW 264.7), and non-cancerous human keratinocyte (HaCaT) cell lines. Cytotoxicity was determined using the crystal violet assay, revealing IC_{50} values at 48 hours of 107 μM for EGCG ($p<0.0001$) and 34 μM for MAZ-51 ($p<0.0001$) in B16F10 cells. Morphological alterations, observed through haematoxylin and eosin staining and transmission electron microscopy, concurred with the cytotoxicity showing decreased cell density and rounding, indicative of apoptosis and necrosis in B16F10 cells. These morphologic alterations were quantified using flow cytometry via annexin V/PI staining and cell cycle analysis which supported these findings, with B16F10 cells entering early apoptotic phases, while RAW 264.7 and HaCaT cells remained viable. Cell cycle analysis revealed cell cycle arrest in sub-G1 and G1 phases for B16F10 cells treated with MAZ-51 and EGCG, respectively. In conclusion, both MAZ-51 and EGCG exhibited a significant reduction in B16F10 cells, with a lesser impact on RAW 264.7 cells and no discernible effect on HaCaT cells. These results align with existing literature, underscoring the individual efficacy of MAZ-51 and EGCG in significantly reducing melanoma B16F10 cell growth. The findings of this study suggest that the use of natural and synthetic compounds EGCG and MAZ-51 could present a better therapeutic alternative for the treatment of melanoma cells than traditional chemotherapeutic drugs, demonstrating comparatively less severe effects on non-cancerous cell lines. Specifically, the incorporation of natural compounds like EGCG aligns with Sustainable Development Goal 3, which strives to ensure good health and promote well-being. Since EGCG is derived from natural sources like green tea, it can contribute to sustainable practices by promoting the use of renewable resources and reducing reliance on synthetic pharmaceuticals. Integrating natural compounds like EGCG into cancer therapeutics not only offers potential health benefits but also supports sustainable development goals by promoting the use of eco-friendly and renewable resources in healthcare. Further research endeavors should delve into the underlying mechanisms behind the anticancer properties of EGCG and MAZ-51 in B16F10 melanoma cells, focusing particularly on the modulation of specific proteins implicated in cancer progression. Techniques such as western blotting can shed light on the precise impact of these compounds on melanoma cell progression. Additionally, exploring these compounds' impact on different cancer cell lines, and conducting *in vivo* studies are essential steps in consolidating the *in vitro* experiments and towards translating these findings into effective and sustainable clinical applications.

References

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A social profile-based recommendation e-learning model

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Keywords: E-learning , Personalized Learning Paths , Recommendation Systems

As Industry 5.0 underscores the importance of fostering a sustainable, resilient, and human-centered society, the demand for accessible online learning opportunities is on the rise to accommodate a diverse range of students from various backgrounds [1]. As a result, adaptive e-learning platforms, which provide personalized learning paths customized for individual students while concurrently maintaining or enhancing success rates, are becoming more attractive to Higher Education Institutions globally. [1]. While the practice of using student data to inform teaching and learning decisions is not new, there is a need to collect and identify relevant data to determine the most effective way to present content to individual students [2,3]. The study investigates the readiness of twenty-six universities in South Africa to establish effective personalized learning paths by evaluating the Learning Management System (LMS) platforms they have deployed, which include Moodle, Blackboard, Brightspace, Canvas, and Sakai. The findings underscore challenges such as inadequate data stemming from restricted access to data sources and a lack of human-centric personalization. These obstacles impede students from deriving the full benefits of personalized learning paths, underscoring the importance of enhancing the e-learning model with supplementary sources of student data. Consequently, this study advocates for a novel approach that leverages students' social data to tailor learning paths more effectively.

References

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Supervisor(s): Dorothy Laubscher & Roxanne Bailey

Revolutionizing Mathematics Learning: A Study of Technology-Supported Cooperative Learning for Mathematics Learners

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Keywords: Mathematics Education, Technology, Cooperative Learning, Self-directed learning, Technology-Supported Cooperative Learning

In the current knowledge- and information-driven era, it is critical that learners develop self-directed learning (SDL) abilities at the classroom level. Learners should be exposed to teaching and learning strategies that enhance SDL. This research focused on the use of technology-supported cooperative learning (TSCL) to improve the SDL of Grade 8 Mathematics learners. To fulfil the research purpose of this study, a mixed-methods methodology with a sequential explanatory design was adopted. This study used a design-based research approach (DBR), and the process was iterative, with two iterative cycles of TSCL developed. A purposive sample of n=427 Grade 8 Mathematics learners from the 10 secondary schools in the Royal Bafokeng Nation (RBN) in Rustenburg were chosen to participate in the first iterative intervention cycle of the study, and n=522 were chosen to participate in the second iterative intervention cycle. The study found that the TSCL intervention improved Grade 8 learners' SDL abilities as indicated by the self-directed learning instrument (SDLI). The results also show that after the TSCL intervention, the mean scores for most SDL domains, namely the learning motivation domain, the planning and implementing domain, and the interpersonal communication domain, increased statistically significantly, with a moderate practical significance increase in both iterative intervention cycles. The implementation of TSCL in the classroom provided an atmosphere in which learners could connect with their peers as a source of knowledge, improve communication and social skills, learn how to find relevant resources and take ownership of their own learning process. The study underscores the necessity for educational policies to incorporate TSCL strategies within the Grade 8 Mathematics curriculum to foster SDL abilities, necessitating teacher training and adequate technological resources. It highlights the importance of creating peer learning networks and implementing regular evaluation frameworks to assess the effectiveness of TSCL methodologies in enhancing SDL domains. Future research should focus on the longitudinal impacts of TSCL, explore broader demographic applicability, address implementation challenges, and compare TSCL's efficacy with other instructional strategies to optimize educational outcomes.

References

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Supervisor(s): Prof Lise Korsten

Occurrence of potential multidrug resistant human pathogenic bacteria throughout the water-soil-plant nexus isolated from highly diversified smallholder farms in South Africa

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Keywords:

The microbiological quality of irrigation water sources in food producing environments are seriously compromised anthropogenic activities. Additionally, polluted irrigation water has been linked to the transfer of human pathogenic bacteria to fresh produce and the subsequent cause of foodborne disease outbreaks. This study aimed to evaluate the microbiological safety, potential multidrug resistant (MDR) pathogen presence and genetic relatedness (DNA fingerprints) of E. coli isolated from the water-soil-plant interface. Irrigation water (n=44), soil (n = 85), and fresh produce (n = 95) samples from six highly diversified smallholder farms were analysed for hygienic indicator bacterial counts and the presence of shigatoxigenic E. coli, Salmonella spp. and extendedspectrum-beta lactamase (ESBL) -producing Enterobacterales using standard microbiological methods. Identities of isolates were confirmed using MALDI-TOF MS and the genetic relatedness of the E. coli isolates determined using Enterobacterial Repetitive Intergenic Consensus Polymerase Chain Reaction (ERIC-PCR) analysis. Irrigation water E. coli levels ranged between 0 - 3.45 log MPN/100ml with five farms having acceptable levels according to the WHO limit (3 log MPN/100ml). Fresh produce samples on four farms (n =65) harboured E. coli at low levels (90%), with a high prevelance of multidrug resistance.

Name: Lufuno Gracious
Surname: Nemakhavhani
University: University of Johannesburg
Faculty: Health Sciences
Department: Laser Research Centre, Department of Biomedical Sciences
Supervisor(s): Dr Sathish Sundar Dhilip Kumar & Prof Heidi Abrahamse

Dendrimer nanoconjugates of curcumin for photodynamic therapy in melanoma cells.

Lufuno Nemakhavhani

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Keywords: Metastatic Melanoma, Curcumin, Cell death, dendrimer-nanoconjugates, Treatment.

Metastatic melanoma is cancer that has spread to other parts of the body, including the lymph nodes, brain, bones, or lungs, and is, therefore, challenging to treat. Melanoma can be treated using a variety of methods, such as chemotherapy, surgery, radiotherapy, and biological therapy, but all are expensive and have side effects when used to treat melanoma [1]. The side effects of the treatments include alopecia, neuropathy, fatigue, nausea, vomiting, gastrointestinal toxicity, and myelosuppression [2]. It has been demonstrated that combining nanotechnology with photodynamic therapy (PDT) can result in a highly effective treatment for melanoma [3]. A photosensitizer/drug called Curcumin derived from the *Curcuma longa* plant, which has anticancer properties, was encapsulated in DGNs because it is hydrophobic, has a fast metabolism, and has poor permeability into cells [4,5]. This project aims to synthesize curcumin-loaded dendrimer gold nanoconjugates (C-DGNs) to target melanoma cells effectively. This project will provide more information on the use of C-DGNs and their efficacy in melanoma cells *in vitro*, as well as the effect of PDT (405 nm wavelength) on C-DGN and any potential impact on melanoma cells. The synthesis of C-DGN and encapsulation of curcumin within C-DGN were successfully confirmed. This was achieved by identifying their surface plasmon resonance pattern using UV spectrophotometry. Additionally, the size and surface morphology of C-DGNs were verified through high-resolution transmission electron microscopy (HR-TEM). Surface chemistry analysis was conducted using Fourier-transform infrared spectroscopy (FTIR), while size and zeta potential measurements were determined using the dynamic laser scattering method. These analytical techniques collectively validate the synthesis and encapsulation processes with precision and reliability. Ongoing research is assessing the impact of photodynamic therapy (PDT) on synthesized C-DGNs in melanoma cells. Subsequent studies will specifically focus on confirming C-DGN's cellular uptake ability and evaluating the efficacy of curcumin loaded within them against melanoma cells. These investigations will utilize diverse cellular and biochemical assays to provide detailed insights into the therapeutic potential of C-DGNs and curcumin for melanoma treatment.

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An exploratory study of small-scale farmers' perceptions of land degradation in Komatipoort and how it influences their livelihoods

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Keywords: Land, Land degradation, Livelihoods, Sustainable livelihoods,

Land degradation is a global challenge that affects natural resources and communities that derive their livelihoods from the land. Despite the prevalence of land degradation in South Africa and its impact on agricultural production and livelihoods, little is known about the status of land degradation and the influence it has on the livelihoods of small-scale farmers in Komatipoort. The goal of the study was to explore and describe the perceptions of small-scale farmers on land degradation in Komatipoort and how it influences their livelihoods. The study adopted a qualitative research approach. It was an applied study with exploratory and descriptive purposes. The research design was an instrumental case study, and a purposive sampling method was used to recruit twelve small-scale farmers in Komatipoort to participate in the study. Data was collected through face-to-face interviews, using a semi-structured interview guide and was thematically analysed. The study found that land degradation in Komatipoort is in the form of water logging, soil salinity and soil erosion. Furthermore, livelihoods are influenced by small land sizes, water scarcity problems and damage to irrigation infrastructure which in turn reduces agriculture productivity and subsequently profits. Land degradation exacerbates small-scale farmers' vulnerability because of socio-economic challenges related to lack of financial assistance, theft of produce and infrastructure, and climate change. Small-scale farmers employ soil and slope management strategies to address land degradation, however efforts are limited by a lack of finances. The study concluded that small-scale farmers lack safety buffers to cushion them from loss of livelihoods due to land degradation and other socio-economic challenges. Diversification of livelihood strategies is important for small-scale farmers to develop assets and sustainable livelihood outcomes. The study brings awareness into the environmental and socio economic challenges that are faced by small-scale farmers. It further brings insight into the importance of the partnerships between development practitioners and natural scientists to address the multidimensional challenges faced by small-scale farmers.

Assessment Rubric

Judge's Name: _____

2023 National VYT Competition
Judging Rubric

PRESENTER:

SCHOOL/INSTITUTE/FACULTY:

VYT TITLE:

SCORING CALIBRATION:

1	2	3	4	5	6	7
Does not meet expectations	Demonstrates competency but some major weaknesses	Demonstrates competency but some significant weaknesses	Good, but some flaws	Very good, only very minor flaws	Excellent, almost flawless	Outstanding, no flaws

Please include a score between 1 and 7 in the 2 sections below.
The competitor will then be provided with an overall score out of 14

COMPREHENSION AND CONTENT	
Does the video aid the audience understand the research presented	
Is the research communicated in language appropriate to a non-specialist audience	
Is the video free from jargon, unexplained acronyms and incomprehensible technical terms	
Does the video leave you inspired and curious	
Score out of 7	

IMPACT	
Is the video engaging and creative	
Is it visually striking and memorable	
Does it make a good first impression and then offer rich content on further examination	
Does the video want to make you find out more about this kind of research If music/sound was used (optional), did this contribute to the impact of the presentation and was in keeping with its mood and style	
Score out of 7	

OVERALL SCORE	/14

COMMENTS
This very brief comment will be used to provide feedback to unsuccessful entrants via email. Please identify one positive and one area for improvement (the most obvious area). **e.g. xxx was good but you need to work on xxx**

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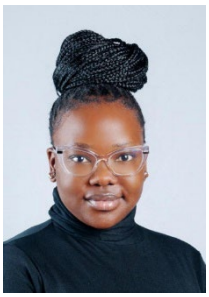

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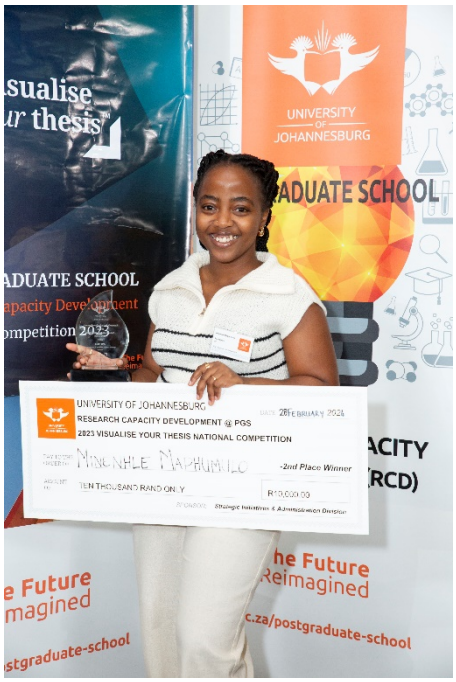
First Place

Carolyn Nadasen (UP)

Second Place

Minenhle Maphumulo (UJ)



Third Place

Sheldon Viviers (UP)

People's Choice Award

Lufuno Nemakhavhani (UJ)

Thank you for making the 2023 National VYT Competition a success.

We look forward to seeing you at the next one!

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