MUSTASA

NEWSLETTER

CHAIRPERSON'S CORNER

Greetings, dear readers,

With great pleasure, I welcome you to the second issue of the MUSTASA Newsletter! As we grow as an academic community, the importance of staying connected through shared knowledge and experiences cannot be overstated. Our newsletter serves as a bridge a vital platform for exchanging innovative ideas, academic achievements, and community developments within Mbeya University of Science and Technology (MUST).

In this issue, we delve into various thought-provoking articles that reflect the strength and diversity of our academic staff. From exploring the growing role of artificial intelligence in higher education to the evolving challenges in Tanzania's construction industry, our contributors have covered various pressing topics affecting our university and society. Moreover, we celebrate the success of our outreach programs, showcasing how MUST continue to influence the youth and encourage them to pursue academic excellence in science and technology.

As we reflect on our progress so far, let us remember why we come together under the umbrella of academic associations like MUSTASA. Through our shared efforts, we can foster a sense of unity, create meaningful dialogue, and drive positive change. The articles featured here are just a glimpse of what is possible when we work collaboratively to uplift one another.

So, sit back, relax, and enjoy this insightful issue. As always, your contributions and feedback are most welcome—let us keep the conversation going!

Warm regards,

Dr. Duwa H. Chengula

Chairperson, MUSTASA

INSIDE

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IMPORTANCE OF ACADEMIC ASSOCIATIONS

Prof. Godliving Y. S. Mtui

The outgoing Deputy Vice Chancellor: Academic, Research and Consultancy - MUST

Introduction

Having been a member of academic associations for more than 33 years, I am always glad when invited at times by the sitting Chairpersons of Mbeya University of Science and Technology (MUST) Academic Staff Assembly (MUSTASA) to write a piece in this prestigious *MUSTASA Newsletter*. My previous contribution to this forum was on academic excellence. This time, I decided to write something about academic associations in general to shed light on their responsibilities.

Academic associations in a nutshell

It is crucial to understand that academic associations are not just bodies of representation. However, they are also statutory organs at higher learning institutions established by the law, regulations and charters. They have constitutions that spell out the vision, mission, objectives and administrative structures. Among the critical functions of such associations is to galvanise and foster unity among the teaching/academic staff to enable them to speak with one voice on matters of not only their welfare and wellbeing but also pertinent issues related to their institutions and society at large.

It is also important to note that academic staff associations are organised nationwide in an umbrella body known as the Academic Staff Association for Public Universities and Colleges in Tanzania (ASAPUCT). This body is relevant and serves as a unifying force, pooling a common agenda and presenting the same to the Government of the day. In the past, ASAPUCT has been at the forefront in spearheading a more improved Harmonized Scheme of Service for Academic Staff in Public Universities and Constituent Colleges in Tanzania, 2022. It has also been instrumental in articulating members' general interests regarding their statutory welfare and civil rights.

Roles of academic associations

Academic associations, though not trade unions by mandate, have galvanised their efforts and achieved several milestones in their respective institutions. These achievements include, but are not limited to:

- Participating and influencing decision recommendations at various committees, including university committees, senates and councils;
- Organize debates and discourses on matters of national and international interest; and
- Act as pressure groups to push for members' interests and aspirations.

MUSTASA is represented in the Senate, Administrative and Human Resource Management, University Council, and Committee for Principals, Directors and Deans at MUST. The body is also visible in the Workers Council meetings and other participatory university-wide events. Other institutions may as well have their representation procedures, but what is expected is that academic associations are well recognised and play pivotal roles in core participatory organs of higher learning institutions.

Some institutions are doing better than others regarding open-to-the-public discourses and debates. Contemporary and touching matters related to education, socioeconomics, and politics, to name just a few, are themed to allow academic and non-academic discussions and suggestions. More often than not, many institutional and national interventions have been made in response to recommendations made at such fora.

Academic Associations commonly apply 'reasonable pressure' to institutional management. Such activities serve as 'waking up' calls to ensure better operations regarding the quality delivery of goods and services. It is always recommendable that any association-management engagement be civil and of good faith rather than confrontational and 'activism-based'.

Way forward

Although associations are doing well in the pursuit of representing their members and fulfilling other responsibilities, it is worth putting forward some advice that would add value for the betterment of these bodies and institutions. Some of them are listed hereunder:

1. As the names suggest, academic associations should prioritise academic-related matters while performing their functions. Specifically, we encourage them to organise academic dialogues and symposia proactively. I am informed that plans are underway for MUSTASA to have a teaching factory where academic-based products and services will be offered. This is the way to go.

2. Experience has shown that general and executive committees of academic associations attract just a few attendees more often than not—some even struggle to meet quorums. However, decisions made there are binding on all members. In the future, wisdom dictates that participating in such meetings should be a 'never-miss' endeavour to validate and authenticate such decisions.

3. To narrow it down to MUST, MUSTASA leaders and members should show improved academic excellence on all fronts: We expect to see more D.s, more innovation-based research and publications, more academic awards, and many more scholarly accomplishments!

4. While MUSTASA is commended for organising a sports bonanza in the 2023/2024 academic year, social-related events should be intensified. It could be prudent to establish a social club that would generate income and be a regular meeting place for academics to exchange ideas in a relaxed mood.

5. As previously advised, MUSTASA could review its constitution and revise it to allow other teaching cadres, such as Instructors, since they perform more or less the same roles at the university.

Again, thank you for allowing me to express my views in this noble forum. I hope this article is informative and worth considering in your routine and strategic endeavours.

'*Our Unity is our Strength.*

MEMBER SPOTLIGHT

Dr Helikumi Mlyashimbi
The best Publisher of the 2022/2023 Academic Year

Mathematical Modelling of Trypanosomiasis: In collaboration with researchers, Dr. Mlyashimbi has explored control strategies for trypanosomiasis, a parasitic disease, using complex mathematical models to inform public health interventions.

Impact of Environmental Factors on Disease Spread: His studies also consider how temperature and vector-host interactions affect disease dynamics, especially for vector-borne diseases such as malaria and trypanosomiasis. These insights provide vital data for regions grappling with such diseases.
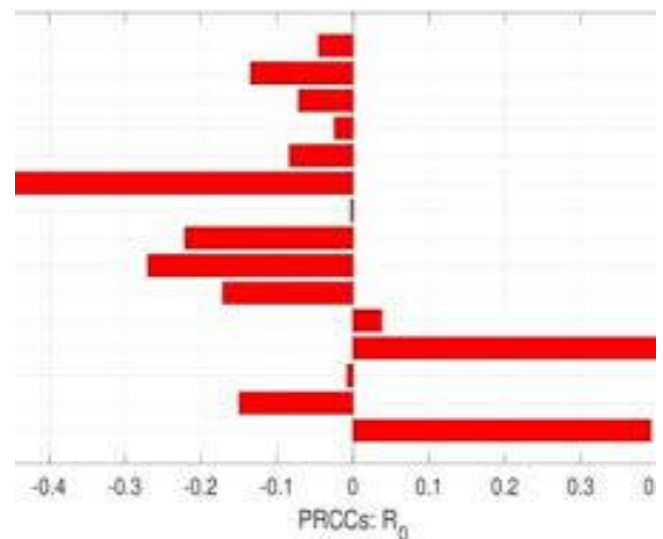

In this issue, we celebrate Dr Helikumi Mlyashimbi, who was honoured as the Best Publisher for the 2023/2024 academic year at Mbeya University of Science and Technology (MUST). Dr Mlyashimbi has consistently demonstrated excellence in research and contributed significantly to the academic community and the field of mathematical modelling.

Dr. Mlyashimbi's recent works span impactful areas, particularly mathematical epidemiology, where he developed models to understand and manage disease transmission. His key publications from the past year include studies on:

COVID-19 Epidemic Models: Dr. Mlyashimbi co-authored influential research on the global stability of COVID-19 models that consider factors like vaccination and quarantine. This work is crucial for understanding long-term pandemic control and disease transmission dynamics.

Dr. Mlyashimbi's research combines mathematical rigor with practical applications, addressing real-world health challenges relevant to both Tanzania and the global community. His work not only advances knowledge in mathematical biology but also serves as a reassuring resource for policymakers and health officials aiming to improve disease control strategies.

Congratulations to Dr. Mlyashimbi! His dedication to research and remarkable contributions makes him an inspiring figure within our university community. We eagerly anticipate how his work will continue to impact academia and society in the future.

Consultancy Services on Research to Support the Construction and Monitoring of Demonstration Sites for Cinder Blended Materials along Shewa Road (2 km) and Mbalizi-Malowe-Songwe-Magereza Road (2 km) in Mbeya City Council

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Introduction

The Tanzania Rural and Urban Roads Agency (TARURA) was established to enhance the management and development of rural and urban road networks in Tanzania. TARURA was officially launched on July 2, 2017. TARURA's creation aimed to facilitate better transportation infrastructure, which is crucial for

Agricultural productivity and economic growth.
Since its establishment in 2017, TARURA has faced several challenges in effectively managing and developing Tanzania's rural and urban road networks. One of the challenges is the availability of locally occurring materials for constructing and maintaining low-volume roads (LVRs). In this case, the construction and maintenance of LVRs are expensive because of the need for more materials which meet engineering specifications, especially in areas with high amounts of volcanic materials, such as in the Mbeya region. Volcanic materials, including volcanic soils and cinders, are considered inferior materials since they need plasticity to bond the materials together. To reduce the cost of construction and maintenance of LVRs, it is vital to blend volcanic materials with other soils, such as clayey soils, to obtain blended materials with suitable specifications for the construction and maintenance of LVRs.

TARURA's headquarters engaged Mbeya University of Science and Technology (MUST) through MUST Consultancy Bureau Limited (MCBL), but work was conducted within the Civil Engineering Department. The work involved researching using locally available materials in the Mbeya region to construct and maintain LVRs. The work mainly was 'Undertaking *Consultancy Services on Research to Support the Construction and Monitoring of Demonstration Sites for Cinder Blended Materials along Shewa Road (2 km) and Mbalizi-Malowe-Songwe-Magereza Road (2 km) in Mbeya City Council'*.

Objectives of the Research

The research will develop suitable and readily available materials for constructing and maintaining LVRs. The resulting materials will reduce the cost of these activities. This will improve the road network in Mbeya and Tanzania at large because LVRs comprise 75% of the road network and serve about 80% of the population in Tanzania.

Materials and Research Methodology

The materials used were Cinder from Ituha, pozzolan from Ituha and clay from Mlima nyoka within Mbeya Municipality. The materials were characterised and blended to obtain suitable specifications for the construction and maintenance of LVRs. The source materials were combined, targeting the grading coefficient (GC) and shrinkage products (SP) ranges. The limits for GC and SP are 100 – 365 units and 16 – 34 units, respectively. The materials with properties within the boundaries are said to perform well for LVRs.
The California bearing ratio (CBR) was also performed, where the required CBR value at 95% MDD, which is greater than 15%, was adopted. The optimum proportions of source materials were 65% Ituha cinder, 23% Ituha pozzolan, and 12% Mlima nyoka clay.

Plate 1: Surface layer of blended cinder, pozzolan and clay materials

Assessment of the Performance of the Blended Materials

Two stages are achieved to determine the performance of the blended materials: (i) supervision research to support the construction of demonstration sites for cinder blended materials and (ii) monitoring the performance of cinder blended materials. While supervision work will be conducted directly during construction, monitoring activity will be conducted after construction work is completed.

Two road sections, the Shewa Road section (2 km) and the Mbalizi—Malowe—Songwe—Magereza road (2 km), were selected to assess the performance of blended materials. Construction supervision will be done for 12 months, after which the monitoring stage will begin.

The assignment for supervising construction included reviewing the existence of borrowed pit materials, supervising road formation, conducting field and laboratory tests, supervising blended materials for road layers, and producing a technical report. Plate 2 shows the MCBL technicians carrying out field density tests, which control the compaction degree of subgrade materials. On the other hand, plate 3 shows the client, consultant, and contractor staff attending a site inspection as part of the supervision stage at the Mbalizi road section.

Plates 1: Site inspection and field density test at Mbalizi Road section

The laboratory materials testing included particle size distribution (PSD) and California bearing ratio (CBR). Figure 1 indicates the particle size distribution of the subgrade materials from the Shewa Road section. Table 1 shows the CBR and field density test results for subgrade materials at the Shewa Road section. The results indicate that the subgrade materials are suitable for LVRs because values exceed the minimum specified of 15%. In the case of the field density test, the contractor has achieved the specified minimum compaction of 95% MDD.

Table 1: CBR values and Compaction Results for Subgrade Materials for the Shewa Road section

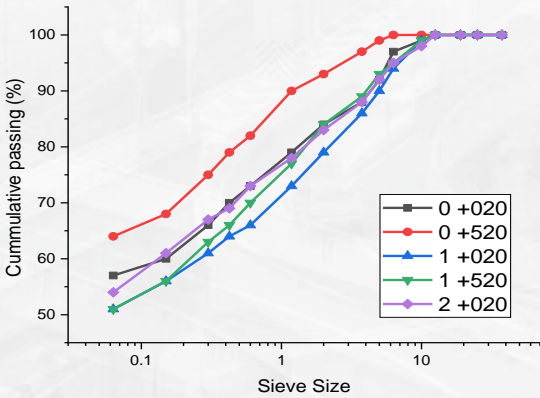| Chainage	0+010	0+400	0+800	1+200	1+600	2+000
CBR Value (%)	15	17	22	20	17	16
Compaction (%)	97	96	98	101	96	98

Figure 1: Particle Size Distribution Curve for Subgrade Materials

The monitoring stage will be done for four (4) months intervals within twenty-four (24) months. In this stage, the assignments to be done are the visual observations of road conditions by identifying the appearance of defects, field and laboratory tests,

Challenges encountered during the execution of the research

The engagement of a contractor to undertake the research activities has shown some problems as the contractor is profit-based. Using a force account-based approach to research works can be an alternative approach.

Conclusion

The research for naturally occurring materials for LVRs is vital as it alleviates the problem of the availability of materials for the construction and maintenance of gravel roads. Therefore, if this research is successful, it will increase the availability of local materials and reduce the costs for the construction and maintenance of LVRs in the Mbeya region.

Learning Styles, Methods for Education Advancement Using VARK Model

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Introduction

Learning is acquiring new or modifying existing knowledge, behaviours, skills, values and preferences (Karban, 2015). Learning involves learners developing and enriching knowledge to change understanding. The ability to learn is owned and modified by humans, and some machines are learning support systems (Lopez & Mejia-Arauz, 2012). Some learning immediately takes the place of understanding induced by a single event, but much skill and knowledge accumulate from repeated experiences (Bolin, 2006). Changes in understanding are mainly caused by learning, which lasts a lifetime. Alexander (1996) argued that learning is acquiring new knowledge, building on existing knowledge, and using prior knowledge to modify and support construction to design future learning. (Alexander 1996). *Learning is* a process that builds on prior knowledge and involves enriching, building on, and changing existing understanding, where one's knowledge supports the construction of future *education delivery* (Alexander, 1996). Human learning begins when people grow up and continues until death due to ongoing interactions between people and the environment (Daniel et al., 2011). The nature and processes involved in learning are studied in many fields, including educational psychology, neuropsychology, experimental psychology, and pedagogy (Daniel et al., 2011). Research in such fields has led to the identification of various learning processes (Terry, 2006; Gagliano, 2014); For example, learning may occur due to habituation, classical conditioning, operant conditioning, or more complex activities such as play, which are seen only in relatively intelligent animals. (Terry, 2006). Learning may occur consciously or without conscious awareness (Bolin, 2006; Perkins & Solomon, 1989).

Learning styles and modes

It has been known that learning can take different modes, such as conventional and distance learning. Compared to traditional Open and distance learning is one of many choices among students. Today's popular notion is that distance learning is chosen by those who cannot access conventional colleges (Bisanda, 2015), However, this is only partially true. Open and distance learning are alternative learning platforms for people who want to learn (Basu, 2012). This is especially true for working professionals and armed forces personnel who wish to learn while working.

Learning style or mode is an individual's distinctive approach to learning based on strengths, weaknesses, and preferences (Collins, 2012); The learning process is, therefore, the planned effort of an individual to take the initiative to acquire knowledge or skills for future use. Learning style is how each learner begins to concentrate on, process, absorb and retain new and challenging material (Dunn, 1990); everybody has different learning strengths, a combination of personal preferences that enable beginning to concentrate, take in new and complex information, remain focused on what one wants to achieve and understand and remember important information and ideas for future uses (Dunn, 1990; Daniel et al., 2011; Gagliano, 2014). When one can apply one's strengths, one becomes more efficient, productive, and successful. Learning starts from childhood, when one understands different ideas used to cope with the environment (Bolin, 2006). When one grows up, one has several learning modes from the parents, playmates, and school and college mates. The essential learning issues are individualism and uniqueness in acquiring knowledge and skills.

The question here is, do we need learning styles? The answer is obviously yes. We must understand the learning style as learners have been developed from different sets and environments. Here, the learning style is necessary as learning can take various modes, and the outcomes for different scholars are the same (Dunn, 1990).

Regardless of whether one prefers structure or choice, traditional or creative applications, or formal or informal learning style approaches help produce the best work in the classroom or workplace. Whatever style is adopted, learning strategies are essential to learners. The plan includes introducing new or unfamiliar contexts, studying challenges strategies, tackling previously under-achieved goals, and confidence level and learning support (Bolin, 2006; Daniel, Daniel, & Daniel, 2011; Lopez & Mejia-Arauz, 2012).

Learning styles/modes are known to the understanding that student learns differently (Dunn, 1990; Daniel, Daniel, & Daniel, 2011). Technically, an individual's learning style refers to the preferential way the student absorbs, processes, comprehends and retains information. The notion of individualised learning styles has gained widespread recognition in education theory and classroom management strategy (Jeanne, 2012; Simandan, 2013). Individual learning styles depend on cognitive, emotional, and environmental factors and experience (Howard, 2010). Everyone has a different learning style. Educators and learners must understand the differences in learning styles and

the ability to acquire knowledge and skills. Implementing best learning practice strategies should be based on learning activities, curriculum, and the ability to acquire knowledge and skills.

Four models were developed by Neil Fleming (Fleming, 1992) to support one's knowledge and skills. Fleming developed a model known as VARK, which suggests four modalities that reflect students' and teachers' learning experiences. The concepts under VARK are Visual, Aural, Read/Write, and Kinesthetic (Fleming, 1992; Cherry, 2018; Pashler et al., 2009). Visual learners learn best by seeing or presenting. Graphic displays such as charts, diagrams, illustrations, handouts, and videos are helpful learning tools for visual learners (Pashler et al., 2009). People who prefer this type of learning would rather see information presented visually than in written form (Cherry,

2018). Aural (or auditory) learners learn best by hearing information. They tend to get a lot out of lectures and are good at remembering things they are told (Bolin, 2006; Cherry, 2018). This is the popular learning style in Tanzania, known as the conversational system. Learners are accustomed to learning through this system; when it comes to other systems like reading and writing, the majority want to use something other than it. Research must be done to understand why the majority wish to adopt an aural learning style.

Reading and writing learners prefer to take in information displayed as words. These learners strongly prefer primarily text-based learning materials. This is one of the best learning methods for persons with other obligations. This notion has been accommodated by the introduction of distance learning, where learners are given study materials and asked to attend examinations (Kalplan & Haeniein, 2016). This is known as distance learning (Tabor, 2007; Dron & Anderson, 2014). Acquiring knowledge and skills depends on time management and the learner's preferred location. The learner is not bound to attend to physical infrastructure during learning.

Distance education or long-distance learning is the education of students who may not always be physically present at a school (Tabor, 2007; Kalplan & Haeniein, 2016). Traditionally, this involved correspondence courses wherein the student corresponded with the school via post. Today, distance education learning involves online education (Kalplan & Haeniein, 2016). Courses (51 per cent or more) are hybrid blended distance learning. Massive open online courses (MOOCs), offering large-scale interactive participation and open access through the World Wide Web or other network technologies, are recent developments in distance education (Dron & Anderson, 2014; Kalplan & Haeniein, 2016).

Kinesthetic (or tactile) learners learn best by touching and doing. Hands-on experience is essential to kinesthetic learners. (Fleming, 1992; Pashler, McDaniel, Rohrer, & Bjork, 2009; Cherry, 2018). Kinesthetics refers to the process where learners achieve learning through experience and practice. Learners/students use life experience to learn new knowledge or skills (Othman & Amiruddin, 2010). Through experience, learners prefer touching and interaction in the environment. Students who possess these learning characteristics have been said to be quickly active in learning physical skills, and their performance is higher (Othman & Amiruddin, 2010).

There are seldom instances where one mode is used or is sufficient, so there is a four-part VARK profile (Fleming, 1992). Despite the criticism of lacking empirical support, the VARK model remains relatively popular among students and educators (Dunn, 1990; Kalplan & Haeniein, 2016). Many students immediately recognise that they are used to a particular learning style for better understanding. Others may find that their learning preferences lie somewhere in the middle. For example, a student might feel that visual and auditory learning is the most appealing. While aligning

teaching strategies to learning styles may or may not be practical, students might find that understanding their learning preferences can be helpful (Daniel et al., 2011). One might know that visual learning appeals most; using visual study strategies in conjunction with other learning methods might help to remember the information studied better or, at the very least, make studying more enjoyable.

The majority of students in Tanzania assume self-learning is very difficult. However, theories state that one can learn and do other activities simultaneously (Bisanda, 2015). Individualised learning styles have gained widespread recognition in education theory and classroom management strategy (Fleming, 1992; Tabor, 2007; Simandan, 2013). Individual learning styles depend on cognitive, emotional and environmental factors and prior experience. In other words, everyone is different. Educators need to understand the differences in their students' learning styles so that they can implement best practice strategies in their daily activities, curriculum, and assessments. Using individual learning, the question concerns competence compared to conversational and group teaching. This paper aims to inform how one can have self-learning provided given the course's prerequisites. The paper is an inspirational piece of knowledge based on Emmanuel Tonya's experience. Emmanuel Tonya sat in front of a teacher during primary education and took the initiative to learn individually from there. Using distance learning, Emmanuel holds a PhD in business management at the Open University of Tanzania.

Methodology

The paper's methodology is based on the case study, which wants to inform and inspire the communities on the different ways of learning. The study was a qualitative analysis of the learning experience. The study used a qualitative method to explain the experience of Emmanuel Tonya as the learning object of the study. The learning ladder was used as an experience of a learning adventure and a period of personal growth, and it also led to a strong appreciation of the differences between doing research in practice and research as described in texts (Pietersen, 2002). The final step in this phenomenological analysis was to derive individual situated structures and a general account of the structure of an event in the learning process.

Education experience analysis

The paper's analysis was based on explaining the ladder Emmanuel took until he reached the highest level of a PhD. The ladder started way back in 1973 when I joined a primary education. Emmanuel completed standard seven in 1979 without being selected for secondary education; by then, he was 14. During those days, there were very few private secondary schools where one could join as private schools provided resources to finance the programme. However,

while working on small farms during his stay at home, Emmanuel started doing distance learning. The distance education experience began with a certificate in bible knowledge from the Emmaus Bible College -Arusha and, later, a certificate in farming from the Institute of Adult Education. Therefore, Emmanuel stayed home for three years until 1982, when the then Member of Parliament of Ludewa and Deputy Speaker of the National Assembly (Mathias Kihaule) organised a tuition class for those without chances to join secondary schools.

The MP agreed with the Roman Catholic Madunda parish to offer redundant buildings, which middle schools used for the training/preparation of youth for qualifying tests leading to seats for National Form four examinations out of the formal system. The training went smoothly for three years outside of the Education system of Tanzania, and I passed the qualifying test. I was lowed to sit for the National Examination as a private candidate in 1985. Emmanuel scored a division two in business studies; as this was out of the formal system, Emmanuel did not join the Advanced level. The decision was to use the business knowledge doing small business in the Njombe market. During the small business undertaking, an opportunity for direct employment with the Cooperative Union was created. This was in 1987, just after joining the cooperative union, when an opportunity arose to sit in the National Business Examinations. Emmanuel set for the examination while working and got a certificate in business management from the National Examination Council in 1988. The certificate was an inspiration for more effort studying.

In 1988, after receiving the business management certificate, Emmanuel joined a diploma course at the International Correspondence School in Glasgow, UK. The course took around one and a half years, and I graduated in 1990 with a diploma in business management and accounting. This was an excellent achievement for further studies, preferably through distance education. This has resulted in transforming the education system in higher learning institutions. The transformation of education has been engineered by several scholars, including Professor Mbwette and quoted by Ikwaba and Sabaya, who concluded that the education system must be changing due to technology, culture, social activities, gender aspects and environment (Mbwette, 2011; Ikwaba & Sabaya, 2015).

The factors which led to the growth of education through distance learning, which Emmanuel went through, are supported by Nihuka (2015), who noted that digital influences the learning process out of conventional. Using computers for searching and learning encouraged distance learning while working, despite the earlier stages of using computers in learning during those days. The changing environment for learning, as well as flexible learning opportunities, encouraged Emmanuel to think of higher education through distance. If Emmanuel had the Diploma, one might ask why he did not join a conversational University. The answer is clear, as noted by

Nihuka (2015), that ODL was designed not only as a strategy to address the challenges of limited learning opportunities but also to open up education opportunities for the majority who might have no access to higher education and needs to tape other opportunities (Nihuka, 2015; Ikwaba & Sabaya, 2015).

The opening up of the opportunity for distance education was grand to Emmanuel as the establishment of the Open University of Tanzania. Emmanuel Joined the Open University of Tanzania with a Bachelor of Commerce in 1997 and completed courses in 2001. Despite the programme completion, Emmanuel Graduated in 2002. Just after completion, Emmanuel joined Njombe District Council as a Trade and Business Development Officer in 2003. Having the experience of the Open University of Tanzania and the education delivery mode was an opportunity for further learning. I joined the Open University's Masters of Business Administration program in 2005 and completed it in 2008. After working for five years, Emmanuel, though little of the knowledge is used in the Local Government, opted to shift to the Open University of Tanzania as an Assistant Lecturer.

Joining the Open University of Tanzania was another room for more advancement in education per the scheme of service for academic staff (DVC-Academics, 2015). According to the succession plan of the Faculty of Business Management, Emmanuel was supposed to undergo a PhD to be promoted to lecturer. Emmanuel joined a PhD programme in 2010, completed it in 2014, and graduated in 2015. The PhD study used a thesis from the Open University of Tanzania. The completion time was precisely three years, and one could ask how this was successful. The issue that he managed to complete for a short period was two-fold: one was the experience of distance learning, which encourages the self-search of materials and hard work, and two was the level of commitment towards learning (Bisanda, 2015). Emmanuel Tonya is now a lecturer at the Open University of Tanzania.

Challenges of distance education

The primary objective of Open and Distance Education is to provide equal educational opportunities to all citizens at different levels of education, specifically for those who need to advance their education while doing other activities. (Agyemang, 2014). With all the good objectives and education prospects through distance education, one has challenges to climb the ladder. The distance education system challenge involves or has been contributed to by students and sometimes teachers. The contribution of challenges has been emphasised by Walsh (2011), who states that students need extra effort to succeed in education. The challenges affect the student's chances of success in completing a programme on time (Walsh, 2011).

Distance education students' primary challenges are real-time feedback for students or teachers. (Basu, 2012)Emmanuel failed to graduate in time because one of the course facilitators was on sabbatical leave without realising the university's results.

Most students face the challenge of feedback on results, which affects their plans for their studies and further advancement. Real-time student feedback and other challenges include the stakeholders' mindset change. Many people still have negative or mixed feelings about the quality of ODL outputs. However, the quality of ODL graduates has been proven to be equal to that of other graduates from conversational Universities. (Dron & Anderson, 2014). Also, the stakeholders' political will is essential for supporting distance education development. The stakeholders need to change their minds toward the output of students through distance education; stakeholders assume distance learning is cheaper than conversational education (Mbwette, 2015). The concept results in planning for small budgets to implement activities; eventually, the activities fail. The delivery mode requires modern infrastructures, including the Internet, libraries, and updated hard-copy materials, to facilitate students' access to materials. (Walsh, 2011). Other challenges include handling social and family issues while studying for financial support, as distance education requires financial investment.

Given these challenges, Emmanuel encountered all of them or some of them. However, Emmanuel used several strategies to overcome the difficulties, including hard work towards his studies without giving up. Some challenges were solved by creating study groups in Mbeya, Iringa, and Ruvuma, of which Emmanuel was a member. These groups could be established online, but it took work. During those days, internet connectivity could have improved, and even WhatsApp was absent to support group communication, necessitating physical visits to ensure materials were shared among the group members for better success despite the travel and accommodation costs.

Conclusion

Distance learning is a conversational mode of education delivery. The difference is the delivery set-up. This experience paper concludes that learners from different learning modes should be accepted depending on their acquired knowledge. It advises instructors to note the amount of work included in the learning programmes as the learners experience different difficulties completing a programme. Also, instructors should balance their responsibility for guiding distance learners with experiential learning opportunities for independence and creativity.

Overcoming Language Phobia: Embracing Linguistic Diversity in Education and Communication

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Abstract

Language phobia is a pervasive and detrimental condition that affects many people worldwide. It often hinders individuals from expressing themselves, not due to a lack of knowledge but because of this widespread condition. Even the most knowledgeable individuals can hesitate to speak up, fearing judgment for their content and language skills.

The Origins of Language Phobia

Where does this issue stem from? The roots of language phobia can be traced back to societal attitudes towards language and communication. In many cultures, language is often prioritised over the content of what is being communicated. For instance, in some cultures, a particular accent or dialect may be considered inferior, leading individuals to develop anxiety about their language skills. This emphasis can lead individuals to develop anxiety around their language skills, especially if they have encountered criticism or challenges in this area multiple times. Over time, this anxiety can evolve into a full-blown phobia, where the focus shifts from delivering valuable knowledge to obsessing over the correctness of language.

The Role of Language in Communication

To understand this better, consider the role of music in human interaction. Music is often described as a universal language because it can convey emotions and ideas without words. It can connect people from different cultures and backgrounds, transcending linguistic barriers. Similarly, language, in its essence, is a tool for communication. However, the way language is used can vary significantly. For example, while

English is undeniably important for global communication, especially in fields like science, technology, and innovation; the core message remains consistent, even with pronunciation, accent, or terminology variations.

Overcoming Language Barriers in Education

Despite these linguistic differences, empowering individuals to learn and grow should be a top priority. Recognising that language should not be a barrier to education or personal development is crucial. With the advent of technology, more tools and resources are now available to bridge these language gaps. Unfortunately, in many educational systems, there is a tendency to equate language proficiency with intelligence, which can be detrimental to learners who may excel in their native language but struggle with a second language like English. This can lead to missed opportunities and crushed aspirations.

To address this issue, education should be tailored to meet the community's needs. Consider China, for instance. In China, higher education is predominantly conducted in the native language, yet the country continues to make significant advancements in various fields. This example illustrates that achieving excellence is possible without relying solely on a foreign language.

Adapting the Education System

Therefore, our education systems must become more inclusive, catering to individuals proficient in English and those more comfortable in their native languages, such as Swahili or any other indigenous language. This approach would involve offering educational materials and resources in multiple languages and recognising that linguistic diversity is not a hindrance but a strength that can enrich our academic experiences.

By providing options that accommodate diverse linguistic abilities, we can create an environment where all learners have the opportunity to succeed, regardless of their language background. This fosters a more inclusive society and ensures that knowledge is accessible to everyone, helping to break down the barriers imposed by language phobia. It is a crucial step towards a more equitable and just educational system.

Conclusion

In conclusion, while language is a powerful tool for communication, it should never be an obstacle to learning or personal growth. By addressing language phobia and adapting our educational systems to be more inclusive, we can empower individuals to reach their full potential, regardless of their language.

Emergence of Artificial Intelligence: A curse or a blessing in our universities. The Case of Tanzania

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Mbeya University of Science and Technology Department of Natural Science

Artificial intelligence [AI] can be defined by a layperson as the science of creating intelligent algorithms and machines that can respond to requests like humans. Since its formal birth in the 1950s, AI has proliferated to serve many purposes, including studying and predicting patterns in large data sets, a component important in the field of simulations, giving a competitive edge to automation when it comes to repetitive and dangerous tasks, and creating smart cities, to mention a few.

However, one primary application of AI witnessed among university students is tackling assignments. With AI's high capabilities to create text in agreeable grammar, AI seems like a close companion for many students. AI can produce acceptable answers in seconds for assignments requiring students to read and digest information from several books. This created a massive problem in the whole process of assessing students in universities. Then, another discovery came in, which was a relief: AI detectors. However, this did not last long, and we have many applications that can help bypass AI detectors. I am sure this war of AI detectors versus bypasses will continue if we continue to let AI affect the learning process negatively.

Standing in the students' shoes, I can see the benefits of using AI in tackling assignments. These include saving time for other essential tasks and reducing human error. The question is: Which other important task are the AI users doing in the saved time? Should universities control these tasks? It is not surprising these days to find an assignment in perfect grammar from a student who needs help to handwrite a single correct sentence. Moreover, these benefits appear to have grave drawbacks in developing analytical minds and critical thinking among AI users. Initially, we would expect students to read pages to collect information and organise information into an answer (which helped develop analytical thinking). Still, they

need a few clicks and have organised answers on their screens. I suspect this will already negatively affect our students and the whole learning process and purposes, especially when developing thinking capacity and innovative minds.

I hope most of us have seen what was contained in Fig 1 message. If no intervention is introduced, complaints such as "our graduates cannot be innovative" will likely increase exponentially. This has already captured the attention of H.E. Dr. Samia Suluhu Hassan, the President of the United Republic of Tanzania [Fig. 1]. I still believe that a few students are using the old approach of tackling assignments that involve reading pages. However, I tend to assume that nature will do them away soon. Will they tolerate witnessing others using seconds to tackle the same assignments they use hours or even days only to get more or less equal scores? I also think that the proliferation of versions of AI in the sky will likely increase the number of cheating cases in exams, where students will struggle to develop methods to hide their AI-carrying gadgets instead of preparing for exams. The questions that come to my mind regarding this are: Do we still need to make written assignments a significant part of learning in universities, as is the case now? Is it time to revolutionise the learning process and abandon the written assignments here? Using available means, can we forsake the old delivery and assessment of the learning? Who should take the first step, the government or the education machinery?

Formerly, when it came to written assignments, especially group assignments, we had issues where a few or even one would do the actual reading, collect and digest information for the whole group, and write the assignment. We were comforted that a few or even one would have developed the intended skills. Now that AI is replacing these fellows, what will happen to those skills initially obtained from reading and digesting information?

I have heard that the Chinese government has strict regulations on what their young ones can access online, including several mobile phone applications. Does this connect with the fast development we are seeing on their part? Should we follow the same path? How will the proliferation of entertainment

social media applications affect our youths? Should AI continue to exist and help them save their time? It could be that entertainment social media takes the time saved by using AI in tackling assignments. Are we already hopeless?
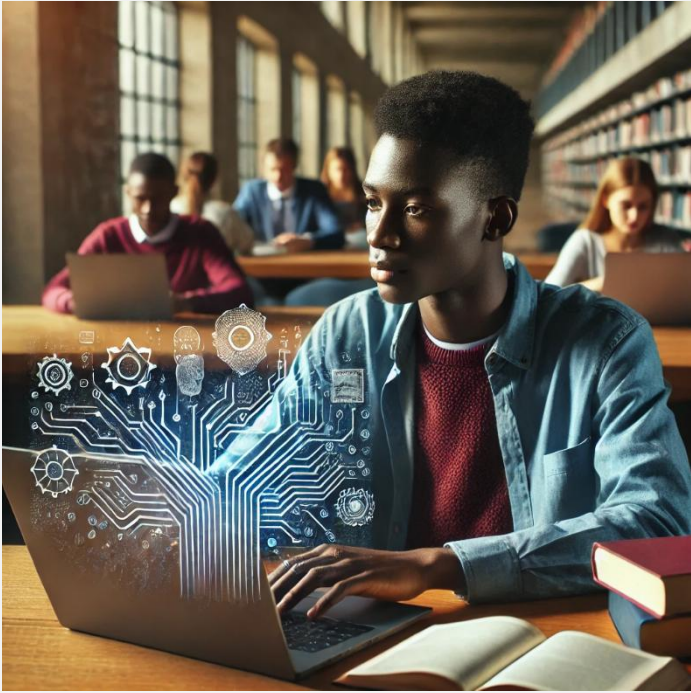
Taking a helicopter view, the emergence of AI appears to raise many questions about our educational systems and daily lives. It could be a significant research area to search for solutions or bypasses. I look forward to findings from these studies, which will assist in opening Pandora's box about whether AI is a curse or a blessing to university students and African youths in general.

Lastly, reading the lips of H.E. Dr. Samia Suluhu Hassan, anybody can see that she has much hope in the education machinery, universities inclusive, to address this challenge. Therefore, as I scan for possible solutions, indigenous information and communication technology experts in universities can assist in creating the required shield for course facilitators should we continue to use written assignments as an important assessment tool. I also thought of an immediate revolution in the mode of assessment. However, will this immediate revolution sync with what the regulator thinks? I also see hope from the recent changes in the lower education curriculums. However, since the current system has been there for decades, adopting the new curriculums could be another challenge. This could be a research area to see whether the prescribed changes in the lower education level curriculums are being implemented, lest we wait for something that will never come. This may assist us to see the weaknesses ahead of time and address them accordingly.

Conclusion

Therefore, I am posing this question again to fellow thinkers: Is the Emergence of Artificial Intelligence A curse or a blessing in our universities in Tanzania? I hope to see more ideas and research gravitating around this concept.

Exploring the Barriers to Adopting Quantity Surveyor Software Among Local Contractors in Tanzania

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Introduction

Technology is a crucial driver of efficiency, accuracy, and effective project management in the rapidly evolving construction industry. However, local contractors in Tanzania have slowly adopted Quantity Surveyor (Qs) software designed to optimise critical tasks such as cost estimation, budgeting, and resource management. A recent Structural Equation Modelling (SEM) study has highlighted the factors influencing this reluctance, identifying the primary barriers to adopting Qs.

Literature review

International construction software such as CostX, ProEst, and Bluebeam have significantly enhanced project efficiency through advanced cost estimation and project management tools. However, in Tanzania, local contractors face challenges in adopting these systems due to issues related to usability and alignment with local regulations.

HALA BuildCostManage Software, a unique solution tailored for Tanzanian contractors, draws inspiration from the Cost Data Skills Academy platform (www.codasa.co.tz). This software, which includes real-time tracking of market prices directly from hardware shops, preparation of bills of quantities (BOQ), schedule of materials and unit cost rates for building and civil works, stands out for its compliance with Tanzanian construction laws. By addressing these local needs, HALA BuildCostManage Software provides a practical and user-friendly tool, contributing significantly to the modernisation of Tanzania's construction industry software.

Key Findings

The study surveyed 300 local contractors and identified several significant barriers to adopting QS software. The study found that resistance to change, difficulties with the software's interface and usability, and non-compatibility with Tanzania's construction laws were the critical barriers to adoption. However, high software costs and a lack of technical skills were found to be less significant obstacles.

Despite the perceived usefulness of Qs software, its adoption decision has not been significantly influenced. Most contractors know the software's potential benefits but remain hesitant due to other, more prominent barriers. This suggests that while contractors recognise the software's value, concerns over usability, regulatory alignment, and overall change resistance must be addressed to drive broader adoption. Highlighting the potential benefits of Qs software, such as reduced project costs and improved timelines, could help overcome these barriers.

Conclusion

The Tanzanian construction industry has substantial potential for growth, but fully modernising it will require addressing the critical barriers to adopting Qs software. By tackling resistance to change, improving software usability, and ensuring alignment with local construction laws, Tanzania can position its contractors to benefit from digital tools that improve productivity and project outcomes. Ultimately, greater adoption of Qs software will benefit individual contractors and contribute significantly to the overall efficiency and competitiveness of the Tanzanian construction sector.

Recommendations for the Future

Addressing Resistance to Change: The study identified resistance to change as a primary barrier. Efforts to address this must focus on fostering a cultural shift within the construction industry. Government bodies, industry associations, and key stakeholders should run awareness campaigns emphasising the importance of digital transformation. These campaigns could highlight successful case studies where contractors who adopted Qs software saw measurable benefits such as reduced project costs and improved timelines. Workshops, seminars, and peer-to-peer learning initiatives can also serve as platforms to demonstrate the long-term value of these tools.

Improving Interface and Usability: Challenges related to interface complexity and usability were also highlighted as significant obstacles. Software developers should work closely with contractors to design more intuitive, user-friendly platforms. Simplifying interfaces and offering step-by-step guides for first-time users will reduce the learning curve and encourage adoption. Additionally, creating localised versions of the software customised to meet Tanzanian construction laws and practices will make the software more practical and relevant for local contractors.

Aligning with Local Construction Laws: Non-compatibility with Tanzania's construction laws emerged as a significant barrier to adoption. Software developers must ensure their products comply with local legal frameworks and standards. Customisation of the software to integrate local norms, workflows, and regulations will enhance its relevance to contractors. Collaborating with Tanzanian regulatory authorities to certify and approve software products will further increase contractor confidence in adopting these tools.

Enhancing Perceived Usefulness: Despite an awareness of the potential benefits, perceived usefulness did not significantly influence adoption. Offering trial versions or free pilot programs could help contractors experience the advantages of Qs software firsthand, overcoming any hesitations. Demonstrating the direct impact of the software on project outcomes through case studies, workshops, and live demonstrations will reinforce its practical value, encouraging broader adoption.

By addressing these critical barriers, Tanzania's construction sector can advance towards digital transformation, enhancing efficiency, productivity, and competitiveness on both the national and international stages. As key industry stakeholders, the audience can drive this transformation and shape the sector's future, instilling a sense of empowerment.

Optimizing Schedules for School Bus Routing Problem: The Case of Dar es Salaam Schools

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Department of Mathematics and Statistics

Introduction

The School Bus Routing Problem (SBRP) involves transporting students to and from school in a safe, cost-effective, and timely manner. It includes determining bus schedules that minimize students' travel time. This process requires assigning bus stops, students, and routes efficiently. However, many schools rely on intuition for planning routes, which often leads to longer travel times, prompting complaints from parents.

In many cities, including Dar es Salaam, students walk to school, use public transportation like *daladalas* (minibuses), or take advantage of school bus services. School buses are designed specifically for student transport and are often painted yellow with "School Bus" labels as per national regulations. The school manages or outsources these services to private drivers or bus companies.

Components of School Bus Routing

SBRP has two main components: routing and scheduling. Routing involves planning bus stops and assigning students to specific stops combined into a route. Scheduling assigns buses to these routes. In the morning, a bus follows a specific route, picking up students and delivering them to school. The process is reversed in the afternoon or evening, with buses dropping students off at their respective stops. Some schools assign one bus to multiple daily routes to reduce the number of buses.

This study assumes that each bus follows a single route, focusing on designing the quickest routes to minimise students' travel time. SBRP is a subset of the broader Vehicle Routing Problem (VRP), which seeks the efficient use of vehicles (e.g., buses, trucks, or cars) for passenger or product transportation. Here, a Tabu Search heuristic is applied to address the real-world challenges of SBRP in Dar es Salaam.

School Bus Scheduling in Dar es Salaam

Dar es Salaam is one of Africa's fastest-growing cities, facing challenges in city planning and urban transport services. While some students walk to school, many rely on *daladalas*. These minibuses, however, prioritize profitability, often refusing students during peak hours in favour of higher-paying passengers. As a result, students face difficulties securing timely transportation, contributing to missed classes and social challenges like teenage pregnancies and conflicts with *daladala* operators.

Privately run schools in Dar es Salaam often offer bus services, but the routing is manually planned based on factors like driver experience, road conditions, and bus conditions. This manual approach can be inefficient, leading to longer student travel times.

The Tabu Search Approach

This study aims to design and implement a Tabu Search-based algorithm to optimise school bus routes. Tabu Search is a well-established metaheuristic algorithm for solving various optimisation problems, making it suitable for SBRP. The objective function measures the total travel time for students to and from school. The algorithm, implemented using Borland C++ 4.5, was tested with secondary data from Tusiime Nursery and Primary School in Dar es Salaam.

Results and Implications

The application of the Tabu Search algorithm in optimising school bus routes at Tusiime Nursery and Primary School in Dar es Salaam resulted in a 19.33% reduction in students' travel time. This reduction is significant, as it not only means less time spent on the bus but also translates to more time available for academic activities and rest. Reducing travel time can directly impact students' overall well-being, as shorter commute times often lead to decreased fatigue, improved concentration in class, and better academic performance.

Moreover, the success of the Tabu Search algorithm suggests that heuristic approaches can be adapted to solve transportation challenges in Tanzania, especially within urban areas like Dar es Salaam, where traffic congestion and route

inefficiencies are prevalent. By leveraging such optimisation techniques, schools can minimize the required buses, reduce operational costs, and improve environmental sustainability due to lower fuel consumption and emissions.

This study also highlights a broader opportunity for policy changes in the school transportation system. Schools and transportation authorities can improve student service quality by adopting data-driven route planning methods, potentially expanding access to safe, reliable school transport. These findings can inform future research and practical applications in public and private schools across the city, promoting a shift from manual, experience-based planning to a more systematic, evidence-based approach.

Conclusion

This study demonstrates that using a Tabu Search-based approach for optimising school bus routing can significantly reduce student travel times, leading to a more efficient and student-centred transportation system. The research has shown that heuristic algorithms can address the complexities of the School Bus Routing Problem (SBRP), providing a practical solution to challenges faced by schools in Dar es Salaam.

The implications of these findings extend beyond a single school, suggesting that other educational institutions in Tanzania could benefit from similar approaches. As Dar es Salaam grows, the need for optimised and reliable school transport services will become increasingly important. Implementing such advanced algorithms could revolutionise how schools plan their transport, ultimately enhancing students' academic experience and contributing to their overall development.

The study underscores the importance of incorporating modern technology into traditional systems to improve efficiency and quality of life. By focusing on evidence-based approaches, schools can ensure students have access to safe and convenient transport, fostering a better learning environment. This research serves as a foundation for further exploration into the role of technology in solving urban transport challenges, aiming for a future where every student's journey to school is safe, swift, and efficient.

School's Sensitization Awareness Campaign Report: March 2024

Kalugula SIMON JUNJA, Ms Anna Minja (COAST), Neema J, Issangya, Dr. Helikumi Mlyashimbi, Dr. Fredrick Ojija, Dr. Lucas Wangwe, Samwel S. Shimo, Mr. Aboubakary Kimiro, Dr. Benadetha Rugumisa, Mr. Salehe Mayange, Mr. Emanuel Sanga and Ms Neema J. Issangya, Mr. Samwel S. Shimo, Mr. Yeremia D. Gwau, Ms. Margaret S. Kironde and Dr. Diana N. Rwegalulila

Introduction

The Center for Virtual and Continuing Education, in collaboration with the Directorate of Gender, visited a total of one hundred and ninety-five (195) secondary schools for the Sensitization Campaign from 18th to 22nd March 2024 in six regions. The secondary schools were visited by a team of twenty-five (25) MUST staff, distributed within six regions, namely, Mara, Kagera, Ruvuma, Lindi, Zanzibar, and Mtwara. The team provided four hundred and ninety-eight (with an average of 3 for each school) MUST guidebooks (498) for academic programs and admission requirements to the schools for continuous follow-up and revision for students and teachers in times of application needs.

The team emphasises studying science subjects for students, especially girls, shared academic programmes and admission requirements in MUST, both the main Campus and Rukwa Campus, fees and other opportunities available in MUST to a total of ninety-five thousand two hundred and ninety-six (95,296) students comprising of form one up to form six. The summary of the report in each region is given below:

Ruvuma Region

In the Ruvuma region, thirty-seven (37) secondary schools were visited from the 18th to the 22nd of March 2024. The secondary schools visited are in Songea, Namtumbo, Nyasa, and Mbinga districts. The sensitisation are academic programs and admission requirements, emphasising studying science subjects to join the Mbeya University of Science and Technology (MUST). A total of 24,635 students (Girls and boys) were contacted, and the importance of studying science subjects and joining MUST for undergraduate and postgraduate studies was explained.

Challenges

Some schools' budget constraints and remoteness regarding means of transport hindered the sensitisation activity to cover all regional schools. Nevertheless, the sensitisation period also collided with some schools conducting mid-term exams. The lack of science teachers in some visited schools resulted in fewer students taking science subjects.

Recommendation

Some of our technical education students should be located to conduct field practical training in some of the schools in the Ruvuma region. For example, Luna Secondary School does not have science teachers to help students who want to pursue STEM subjects/domains.
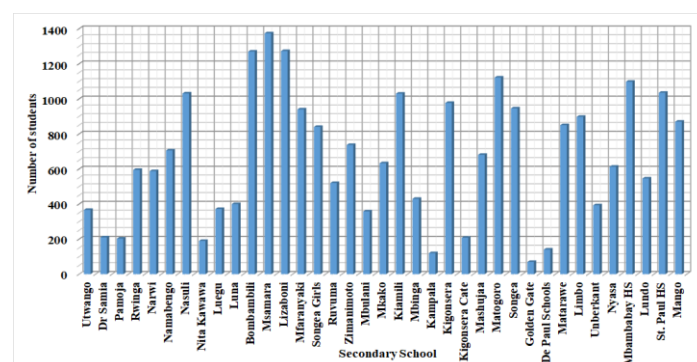

Figure 1: Summary of Ruvuma region sensitization campaign report

Figure 2: Students at Nita Kawawa (Left) and Narwi (Right) Secondary Schools

Figure 3: Students at Bombambili (Left) and Songea girls (Right) Secondary Schools

Figure 4: Students at Mfaranyaki (Left) and Kigonsera (Right) Secondary Schools

Figure 5: Students at Mbamba Bay (Left) and Nyasa (Right)

Secondary Schools

Mtwara Region

In the Mtwara region, twenty-nine (29) secondary schools were visited from the 18th to the 21st of March 2024. The secondary schools visited are found in Masasi, Tandaimba and Mikindani districts. The sensitisation team shared academic programs and admission requirements, emphasising studying science subjects to join studies at Mbeya University of Science and Technology (MUST). A total of thirteen thousand seven hundred forty-nine (13,749) students (Girls and boys) were contacted. The importance of studying science subjects and joining MUST for undergraduate and postgraduate studies was explained.
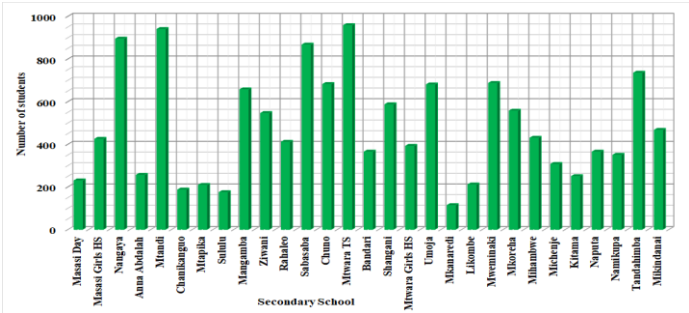

Figure 6: Summary of Mtwara region sensitisation campaign report

Figure 7: Students at Masasi Day Secondary (Left) and Masasi Girls (Right) High Schools

Figure 7: Students at Mtandi (Left) and Chanikanguo (Right) Secondary Schools

Figure 8: Students at Mtapika (Left) and Suluhu (Right) Secondary Schools

Figure 9: Students at Mangamba (Left) and Mtwara Technical (Right) Secondary Schools

Figure 10: Students at Rahaleo (Left) and Mtwara girls (Right) Secondary Schools

Figure 11: Students at Chuno (Left) and Umoja (Right) Secondary Schools

Mara Region

In the Mara region, forty-one (41) secondary schools were visited from the 18th to the 22nd of March 2024. The sensitisation team shared academic programs and admission requirements, emphasizing the importance of studying science subjects to join studies at Mbeya University of Science and Technology (MUST). Twenty-two thousand two hundred seventy-eight (22,278) students (Girls and Boys) were contacted and explained the importance of studying science subjects and joining MUST for undergraduate and postgraduate studies.
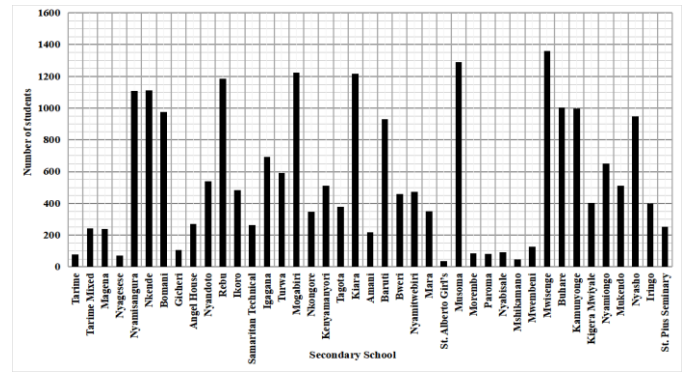

Figure 12: Summary of Mara region sensitisation campaign report

Figure 13: Students at Tarime (Left) and Samaritan (Right) Secondary Schools

Figure 14: Students at Mogabiri (Left) and Nyagesese (Right) Secondary Schools

Figure 15: Students at Mwisenge (Left) and Kigera Mwiyale (Right) Secondary Schools

Kagera Region

In the Mtwara region, thirty-three (33) secondary schools were visited from the 18th to the 22nd of March 2024. The secondary schools visited are in Muleba, Karagwe, Ngara and Bukoba districts. The sensitisation team shared academic programs and admission requirements, emphasising studying science subjects to join studies at Mbeya University of Science and Technology (MUST). Seventeen thousand six hundred and fifty-four (17,654) students (Girls and boys) were contacted, and the importance of studying science subjects and joining MUST for undergraduate and postgraduate studies was explained.
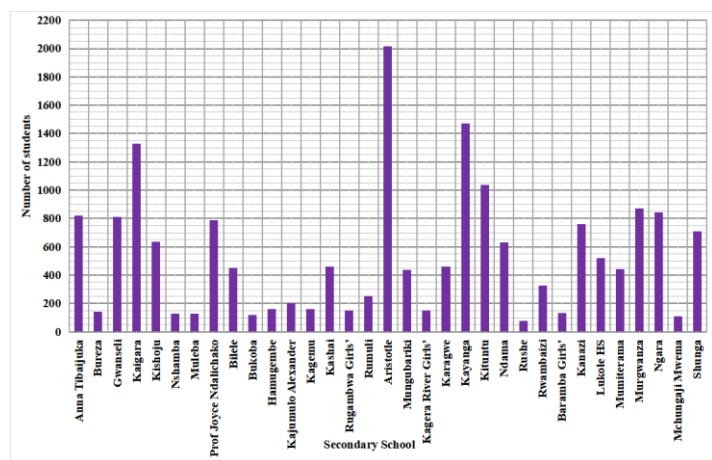

Figure 16: Summary of Kagera region sensitization campaign report

Figure 17: Students at Mungubariki (Left) and Kigera Karagwe (Right) Secondary

Figure 18: Students at Kashai (Left) and Rugambwa (Right) Secondary

Figure 19: Students at Kajumulo (Left) and Kaigara (Right) Secondary

Figure 20: Students at Kishoju (Left) and Kaigara (Right) Secondary

Lindi Region

Thirty (30) secondary schools were visited in the Lindi region from the 18th to the 22nd of March 2024. The sensitisation team shared academic programs and admission requirements, emphasising studying science subjects to join studies at Mbeya University of Science and Technology (MUST). Eleven thousand five hundred ninety-one (11,591) students (Girls and boys) were contacted. The importance of studying science subjects and joining MUST for undergraduate and postgraduate studies was explained.
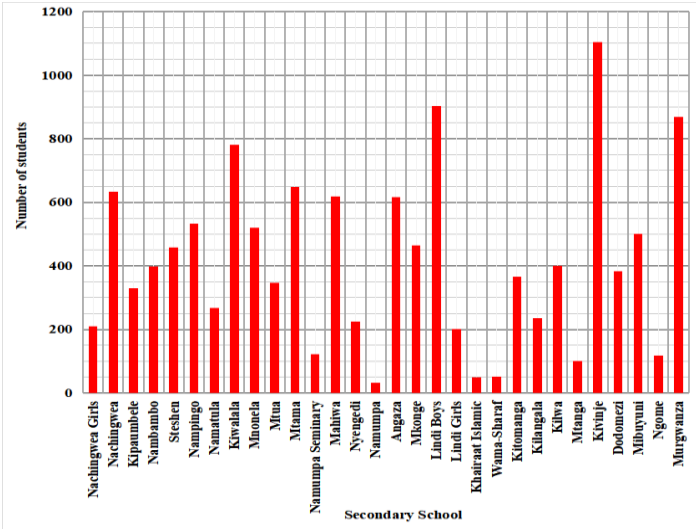

Figure 21: Summary of Lindi region sensitisation campaign report

Figure 22: Students at Naipingo (Left) and Angaza (Right) Secondary

Figure 23: Students at Kilwa Kivinje (Left) and Mtama (Right) Secondary

Zanzibar Region

In the Zanzibar region, twenty-five (25) secondary schools were visited from the 18th to the 22nd of March 2024. The secondary schools visited are found in Unguja and Pemba districts. The sensitisation team shared academic programs and admission requirements, emphasising studying science subjects to join studies at Mbeya University of Science and Technology (MUST). Five thousand three hundred ninety (5,390) students (Girls and boys) were contacted, and the importance of studying science subjects and joining MUST for undergraduate and postgraduate studies was explained.
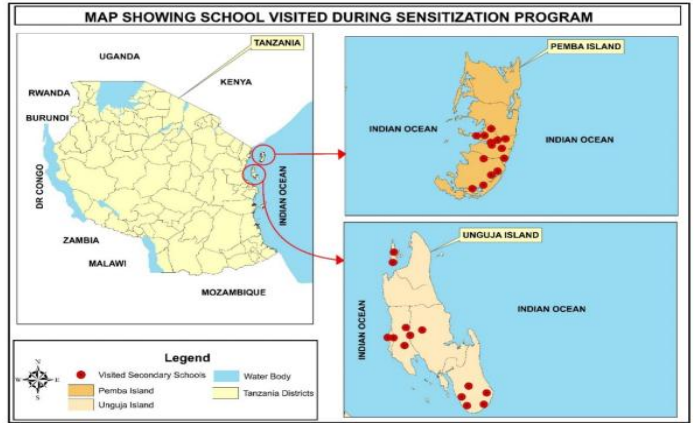

Figure 24: Map showing school visited in Zanzibar during sensitisation program
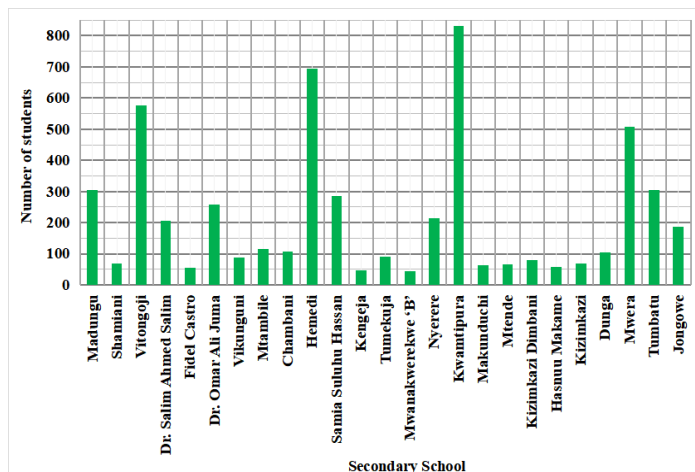
Figure 25: Summary of Zanzibar region sensitisation campaign report

Figure 26: Students at Dr Salim Ahmed (Left) and Mwanakwerekwe (Right) Secondary

Figure 27: Students at Dr. Omar Ali Juma (Left) and Mtambile (Right) Secondary

Conclusion

The program was conducted during the mid-term examination period, which led to much time being used in one school as the sensitisation members were required to wait for the students until they finished their exams.

The program was conducted during the holy month of Ramadhan when the study hours in Zanzibar end between 11:30 AM and 12:00 PM. This led to the team members visiting a small number of schools per day.

The team members were not provided/financed with on-ground transport even though the schools in both Islands were

geographically far from one another. This led the team to finance the routes using their funds, which cost between Tsh. 100,000/= to Tsh. 150,000/=.

Five out of 12 schools visited in Pemba Island requested that the University establish a Campus in one of the Islands to allow female students to attend science programs. They argued that parents in Pemba are too protective of their daughters as they visit them frequently. Thus, female students will be an obstacle to joining the Rukwa (MRCC) or Mbeya Main Campus.

Recommendations

The Directorate for Centre for Virtual and Continuing Education has to conduct the program in a non-examination period.

Based on the Zanzibar culture of studies to end between 11:30 AM and 12:00 PM, the Directorate for Centre for Virtual and Continuing Education has to conduct the program in other months and not in Ramadhan.

The budget for school sensitization has to cover on-ground transport.

Establishing a campus in one of the islands has to be discussed with the management level to check for possibilities. Nevertheless, the team answered the question: Parents must have faith in their kids to ensure that they get quality education on our campuses, which will benefit students as individuals and the nation at large. Moreover, parents are not limited to visiting their kids on our campus.

PROFESSIONAL DEVELOPMENT CORNER

Boosting Skills for Academic Success

The Editor

Welcome to the Professional Development Corner! This section is committed to providing resources, insights, and opportunities for every academic to grow and excel. Whether you want to refine time management, stay updated with current research, or sharpen communication skills, this corner will guide you toward impactful professional growth.

1. Time Management in Academia: Strategies for Balance and Productivity

Academia's demands on time can be overwhelming. Here are some targeted strategies to help you manage your day effectively:

Prioritise Key Tasks: Start your day with three tasks that align with your biggest goals. Focus on these to ensure your day is meaningful.

Use Time-Blocking: Research shows that dedicated blocks of focused time can increase productivity. Try reserving an hour for grading, a morning for research, and a set time for meetings.

Harness Technology: Tools like Trello for project management and Rescue Time for tracking productivity can make a big difference in staying organised.

Set Clear Boundaries: Practice saying "no" to tasks that do not align with your primary goals. This helps maintain focus and prevents burnout.

2. Staying Current with Academic Research: Insights and Innovations

Keeping up with the latest research can feel daunting. Here is how to stay on top without being overwhelmed:

Create Alerts for Key Topics: Use Google Scholar Alerts or PubMed to get email notifications for new research in your area.

Collaborative Platforms: ResearchGate and Academia.edu update you on trending research and connect you with researchers worldwide.

Attend International Virtual Conferences: Many top conferences are now held online, offering access to lectures and panels by global experts. Engaging in these can provide new perspectives and networking opportunities.

3. Enhancing Communication Skills: Speaking, Writing, and Listening

Communication is foundational in academia. From writing research papers to delivering lectures, here is how to enhance your communication toolkit:

Clarity and Simplicity in Writing: Whether it is an email, article, or report, aim for clarity. Avoid jargon where possible to improve accessibility and engagement.

Sharpening Public Speaking: Attend online speaking courses, like those on Coursera or edX, to build confidence and polish your presentation skills.

Active Listening in Discussions: Listening to others' ideas without planning your response can enrich your thinking and create a collaborative atmosphere.

4. Mark Your Calendar: Upcoming Training and Workshops

Stay tuned for more professional development tips and updates on every issue. Let us build a strong, skilled, and connected academic community together! Reach out if you want us to cover a specific topic and happy learning!

"Beyond the Game"

In 2024, the Mbeya University of Science and Technology Academic Staff Association (MUSTASA) organized a vibrant Sports Bonanza that brought together academic and supporting staff, as well as students and local citizens, for a day of fun, fitness, and unity. The event, which was open to all, served as a reminder of the importance of physical health, collaboration, and fostering a sense of togetherness, values that not only benefit our well-being but also enhance our professional environment.

The Sports Bonanza kicked off with an inspiring message from the guest of honour, Professor Godliving Mtui, the Deputy Vice-Chancellor for Academics, Research, and Consultancy. Professor Mtui highlighted how engaging in sports can improve our health and strengthen teamwork, which are crucial for success both in and outside the workplace. "Through sports, we promote not only physical fitness but also the unity that is essential for the progress of our university and community," he said.

Throughout the day, the excitement was palpable as staff, students, and residents participated in a variety of games, cheering each other on in friendly competition.

The 2024 MUSTASA Sports Bonanza was a resounding success, uniting staff, students, and the community in a shared celebration of health, teamwork, and service. It showcased the values of unity and service, with lasting memories that went far beyond the game itself.

The event became more than just a sports day, it was an opportunity for everyone to connect, laugh, and share in the joy of being part of something greater.

But the day didn't end on the playing field. In the true spirit of giving back, the staff made their way to a nearby orphanage, putting the words "Let your light shine where you are" into action. The group contributed essential supplies to the orphanage, offering not only material support but also a reminder of the power of community and kindness. This outreach marked a significant achievement in one of MUSTASA's core goals for 2024 extending compassion and making a meaningful impact on the lives of others.