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***SmartVille Living Labs***

***APPROACHES TO LEARNING ENTREPRENEURSHIP FOR SMART VILLAGE COMMUNITIES IN ZAMBIA AND NAMIBIA***

***2024-2025***

**Report**

# Digital landscape and e-participation of formal and informal learning in Zambia and Namibia communities

By

*Team SmartVille Living Labs*

**Work Package 2:**

## Situational analysis of the current learning methods and contents and community approaches to co-design

June, 2024

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**Executive summary**

Digital use and e-participation in both formal and informal learning play a crucial role in fostering entrepreneurship within communities. These tools enhance entrepreneurship skills and promote inclusiveness, which are essential for starting and sustaining projects. However, use of digital devices and tools in informal learning appears to be limited in communities.

The SmartVille project focuses on providing digital tools and internet access, allowing Living Labs to facilitate seamless integration into the digital economy. A key advantage of Living Labs is their ability to offer informal entrepreneurship education, such as short courses, to individuals who lack access to formal degree programs at targeted Higher Education Institutions (HEIs). This ensures that entrepreneurship education is accessible to a broader audience, thereby promoting inclusivity and widening participation.

In Work Package Two, we explored community approaches to both formal and informal learning of entrepreneurship education in Zambia and Namibia. Our target HEIs were Mulungushi University (MU) and the University of Lusaka (UNILUS) in Zambia, and the University of Namibia (UNAM) and the Namibia University of Science and Technology (NUST) in Namibia.

We conducted questionnaires and collected data from students at the target institutions studying entrepreneurship, as well as from lecturers and community members. The community sample consisted of two villages in Zambia and two in Namibia, involving a total of 141 students, 16 lecturers, and 69 community members.

We analyzed the frequent use of digital tools such as WhatsApp, Facebook, websites, Zoom, and Teams. We also examined the devices primarily used for accessing digital content (phones, computers, etc.), tools for co-design, and the Ubuntu philosophy in education, alongside the community's involvement in formal entrepreneurship education. Additionally, we looked at existing initiatives utilizing e-participation to support entrepreneurship education.

Our findings highlight several critical issues affecting the effectiveness of entrepreneurship education and the entrepreneurial environment in the targeted regions:

a) Skills Gap: Disparities in the required entrepreneurial skills.
b) Access to Resources: Limited access to financial resources to access digital devices and tools, markets, and essential business tools and infrastructure hinders entrepreneurial growth.
c) Educational Challenges: Deficiencies in digital applications in current educational methodologies.
d) Community Challenges: Business challenges include deficiencies in marketing, finance, and general business expertise. Use of digital devices and tools for entrepreneurship is limited.

Based on our findings, we recommend curriculum enhancements, capacity-building initiatives for educators, improved access to financial resources, and the development of support networks for entrepreneurs.

Key findings among lecturers and students include:

a) Skills Utilization: Generally good skills across institutions in using online platforms for teaching and learning, covering both existing and new skills for various contexts (office work, fieldwork, students, and community). Lecturers are sufficiently experienced in using online teaching platforms.
b) Teaching Methods: Dialogue, lectures, and problem-based learning are generally easy for both lecturers and students to use for teaching both new and old skills. However, project-based learning, self-directed learning, and innovation were found to be more challenging for lecturers to implement.

**Keywords**: Digital needs, E-participation, Smart Village, Living Labs, Entrepreneurship, Community

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### List of acronyms

| No | Acronyms | Meaning |
|---|---|---|
| 1 | DRPGS | Directorate of Research and Postgraduate Studies |
| 2 | ELL | Educational Living Labs |
| 3 | HEIs | Higher Education Institutions |
| 4 | IT | Information Technology |
| 5 | LAB | University of Applied Sciences |
| 6 | LMS | Learning Management System |
| 7 | MU | Mulungushi University |
| 8 | NUST | Namibian University of Science and Technology |
| 9 | SIS | Student Information System |
| 10 | TuDo | TU Dortmund University |
| 11 | UNAM | University of Namibia |
| 12 | UNILUS | University of Lusaka |
| 13 | UTU | University of Turku |

# CHAPTER ONE

# SITUATIONAL ANALYSIS OF DIGITAL LANDSCAPE AND E - PARTICIPATION OF FORMAL AND INFORMAL LEARNING

## 1.1 Background

The work package on digital landscape was undertaken with four HEIs in Zambia and Namibia, and the background of each HEI is provided in the subsequent subsections.

### 1.1.1 Mulungushi University

#### 1.1.1.1. Introduction

Mulungushi University is one of the public universities in Zambia, and it was created in 2008. Currently, the university has three campuses. The Town Campus is located in Kabwe municipality along the Mubanga Road, off Munkoyo Street. The main campus is located in Kapiri Mposhi District some 26 kilometres North of Kabwe Municipality along the Great North Road and banks of Mulungushi River. Lastly, the School of Medicine and Health Sciences Campus is based in Livingstone at Livingstone Central Hospital.

#### 1.1.1.2. The university vision, mission and core values

Mulungushi University has the long-term vision of becoming "The leading, innovative, relevant and reputable university of excellence" while the mission is "To provide high quality academic programs, research and consultancy services through stakeholder engagement". It has various stakeholders who are both private and public institutions both at local and international levels. The university endeavors to promote equity, equality, accountability, integrity and professionalism.

#### 1.1.1.3 Operational management structure

The strategic decision functions of the university are vested in the University Council which is appointed by the Minister of Higher Education.

The university council delegates the operational function of the university to the University Management Team which comprises Executive Officers who include The Vice Chancellor; The Deputy Vice Chancellor; The Registrar; The Chief Financial Officer; The Dean of Students and The University Librarian. The university has seven

(7) schools and one directorate. The current schools include Education; Agriculture & Natural Resources; Business Studies, Social Sciences; Natural & Applied Sciences; Engineering & Technology and Medicines & Health Sciences; and the Directorate of Research and Postgraduate Studies.

### 1.1.1.4. Digital Infrastructure and Technological facilities at University level and community

Mulungushi University has automated most of its operational information systems and these systems include;

a) The student information system (SIS) which is linked to the Accounting and the Student e-Learning Systems for easy invoicing and provision of e-Learning materials and other information to the learners.
b) The student e-learning portal (Moodle) for teaching and information sharing.
c) Accounting information system which has been integrated with the student information system.

The use of WhatsApp, Zoom and google meet has also become common in the delivery of educational services at Mulungushi University and the country at large.

The university has an ICT Centre with a fully-fledged ICT unit and members of staff who are also in charge of Computer rooms and Laboratories. The main library is also stocked with personal computers and internet connection, including the e-Library with support from Astria Learning.

### 1.1.1.5 The use of digital devices in education and other transactions

The use of teaching aids in classrooms such as projectors, Televisions and video cameras has become very common at Mulungushi University and the country at large. Around 95% of students own a smartphone or have access to a personal computer for use in their academic activities which include online lessons, submission of tests and assignments and social media interactions.

Ownership and use of mobile phones is increasingly becoming common in rural villages, including the study community of Luanshimba and surrounding areas. This is mainly because of the increase in network and infrastructure expansion and the increased demand for the use of mobile money transfers.

At the national level, Zambia has communication towers in many parts of the country for services such as mobile phone communication; mobile money transactions and payment systems and mobile phone internet access.

#### 1.1.1.6. Common challenges and threats with digital application in education

(a) The high cost of technological gadgets such as mobile smart phones and internet connectivity.
(b) Increased frequency of power and net-work outages which negatively affect operations of media companies, operators and the universities.
(c) Mobile phone connectivity challenges even in some areas which have communication towers.
(d) Some areas may not have communication net-work services at all.
(e) The high speed at which technologies are changing makes the recent technologies obsolete and rural communities in Zambia lag behind to catch up with the rest of the world.
(f) Increased cases of digital fraud and theft.

#### 1.1.1.7 Existence of the legal framework to control digital usage

Zambia enacted the Cyber security laws to curb social media crimes and digital fraud in the country.

### 1.1.2 The University of Lusaka

#### 1.1.2.1 About the University of Lusaka

The University of Lusaka (UNILUS) is a leading private university that prides itself on service excellence. It was opened in 2007 as a postgraduate teaching unit of Copperbelt University. The university believes in being transformational and aspires to be a center of excellence in education, training, research, and consultancy. In the last fifteen (15) years, the university has designed a unique portfolio of programs, each tailored to meet industry needs and diverse career paths. UNILUS is the largest private university in Zambia. It now has over 12,000 students. The Higher Education Authority of Zambia has classified it as a research university at the top tier of the Zambia Qualifications Authority (ZAQA). UNILUS is the highest-ranked private university in research outputs and third-ranked nationally after the University of Zambia and Copperbelt

University. The university has three academic campuses: Pioneer, Leopards Hill, and Silver Rest.

#### 1.1.2.1 The Digital Landscape at UNILUS

The University of Lusaka (UNILUS) prides itself on a robust and dynamic IT infrastructure that enhances the academic experience and streamlines administrative processes. The institution has integrated advanced technology systems to support students from admission to graduation, ensuring a seamless and efficient educational journey. The digital landscape at UNILUS is a testament to the university's commitment to leveraging technology to enhance education. From a seamless admission process to a comprehensive LMS and a wealth of online resources, UNILUS ensures its students and faculty are well-supported in their academic endeavor. This forward-thinking approach positions UNILUS as a leader in integrating technology in higher education, providing a modern and efficient learning environment.

#### 1.1.2.2 Information Technology Infrastructure

At the heart of UNILUS's digital landscape is a state-of-the-art IT infrastructure. The university has invested heavily in high-speed internet connectivity, ensuring that both students and faculty have reliable access to online resources. This is supported by a robust network of servers, which securely manage the institution's digital operations and store critical information. University of Lusaka is the largest private University in Zambia, with three campuses in different locations. The University boasts of state-of-the-art infrastructure such as modern sports grounds, Gym, hospital, modern laboratories, classes fitted with the latest technological gadgets (projectors, smart televisions and CCTV), modern kitchens and canteens to name but just a few. The University has a functional website, a student learning platform where school materials and other resources such as account information, results, and accommodation matters are accessed. All three campuses have an ICT department with well-qualified staff that attends to the technical needs of the students and staff members. Every staff member has a personal computer and desk where they conduct their work without any limitation.

#### 1.1.2.3 Admission System

The admissions process at UNILUS is digitized, making it efficient and user-friendly. Prospective students can apply online through a dedicated portal that guides them

through the application process. This system allows for the submission of documents, payment of application fees, and tracking of application status in real-time. The integration of automated systems ensures that applications are processed swiftly, and applicants receive timely updates on their admission status.

#### 1.1.2.4 Student Management System

UNILUS has an established Student Management System that handles various administrative functions, including student registration, course management, and grade tracking. This system is continuously being enhanced to integrate results from the Moodle platform, which will streamline the process of updating student records and improve overall efficiency.

#### 1.1.2.5 Learning Management System

UNILUS utilizes a comprehensive Learning Management System (LMS) to facilitate online and blended learning. This platform is a hub for all academic activities, providing access to course materials, lecture notes, and recorded sessions. Students can submit assignments, take quizzes, and participate in discussion forums, all within the LMS. The system is designed to support interactive learning, with features like live chats and video conferencing, enabling real-time engagement between students and lecturers.

#### 1.1.2.6 Online Tools and Support Systems

In addition to the LMS, UNILUS offers a range of online tools and support systems to enhance the learning experience. The university's library services are fully digitized, providing access to many e-books, journals, and academic databases. Students can access these resources remotely, ensuring they have the necessary materials for their studies at any time. UNILUS also provides robust IT support to address any technical issues students or faculty might encounter. A dedicated helpdesk is available to help with software installation, network connectivity, and troubleshooting of digital tools. Furthermore, the university offers training sessions and workshops to ensure that all users are proficient in using the available technology.

### 1.1.3 University of Namibia

#### 1.1.3.1 The Use of Digital Systems at the University of Namibia

The University of Namibia (UNAM) has embraced various digital systems and

platforms to enhance the academic experience for both students and staff members. These systems are integral in delivering education, assessing students, and facilitating administrative functions. This section outlines the key digital tools utilized by UNAM, including Moodle, virtual classrooms like BigBlueButton, Zoom, and Microsoft Teams, the ITS system, digital libraries, and Google collaboration tools.

Moodle is a widely used learning management system (LMS) at the University of Namibia. It serves as a central platform for managing course materials, assessments, and communication between students and instructors. It allows students to access course materials, submit assignments, and take quizzes and exams. It provides a structured environment where students can follow their courses, track their progress, and receive feedback from their instructors. The platform supports various types of assessments, including multiple-choice quizzes, essay submissions, and interactive activities.

For faculty members, Moodle offers a range of tools to share learning information, such as lecture notes, readings, and multimedia resources. It also enables instructors to create and manage quizzes and assignments, grade student work, and provide timely feedback. Additionally, Moodle supports forums and chat rooms where students and staff can engage in discussions and collaborative learning activities.

#### 1.1.3.2 Virtual Classrooms

For virtual classrooms, UNAM utilizes BigBlueButton, which is an open-source web conferencing system integrated into Moodle, providing a virtual classroom experience. It allows real-time sharing of audio, video, slides, and chat, making it an essential tool for remote learning.

In addition to BigBlueButton, UNAM utilizes Zoom and Microsoft Teams for virtual classes and meetings. These platforms offer robust features for video conferencing, including breakout rooms for group work, screen sharing, and recording capabilities. They are also used for administrative meetings and staff collaboration, ensuring seamless communication across the university.

#### 1.1.3.3 Integrated Tertiary Software (ITS)

The Integrated Tertiary Software (ITS) system is a comprehensive administrative tool used by the University of Namibia. ITS manages various aspects of student

administration, from registration to graduation. It is crucial for recording student results and disseminating them. It maintains student records, tracks academic performance, and ensures that grades are accurately recorded and communicated to students. This system also handles course registration, timetabling, and other administrative tasks, providing a streamlined experience for both students and staff.

#### 1.1.3.4 Digital Libraries

The University of Namibia provides access to a range of digital libraries, including ScienceDirect, Taylor& Francis and EBSCO. These platforms offer a vast collection of electronic journals, books, and other academic resources. With these resources, students can conduct literature reviews, access peer-reviewed articles, and stay informed about the latest developments in their fields of study.

#### 1.1.3.5 Collaboration Tools

To support collaborative work, UNAM encourages the use of Google collaboration tools. These tools include Google Docs for document creation and editing, Google Forms for surveys and data collection, and Google Colab for collaborative coding and data analysis.

In conclusion, the University of Namibia has integrated a variety of digital systems to support its educational and administrative functions. Moodle serves as the primary LMS, facilitating learning and assessment. Virtual classrooms like BigBlueButton, Zoom, and Microsoft Teams enable remote teaching and communication. The ITS system ensures efficient management of student records and results. Access to digital libraries such as ScienceDirect and EBSCO enhances research capabilities, while Google collaboration tools foster teamwork and collaborative learning. Together, these systems create a dynamic and effective learning environment, aligning with UNAM's commitment to providing quality education in a digital age.

### 1.1.4 The Namibia University of Science and Technology

#### 1.1.4.1 About NUST

Namibia University of Science and Technology (NUST) was established in November 2016 under the Namibia University of Science and Technology ACT No 7 of 2015 following the transformation of an institution previously known as the Polytechnic of Namibia which was governed by the ACT of Polytechnic of 1994.

NUST is a Namibian government vibrant institution of higher learning with over 520 academics, 170 qualifications and 17,000 students studying on a full-time, part-time, distance education basis and some online courses. The university consists of four faculties, namely, Computing & Informatics; Commerce, Human Science & Education; Engineering & Build Environment; Health, Natural Resources & Applied Science. Under these faculties, there are 16 departments and Institutes such as the Namibia Energy Institute under the Faculty of Engineering & Build Environment. The university operates in a highly technological environment in terms of academic programs and services and offers highly rated programs in Science, Engineering and Technology. The university's mission is to be an engaged and responsive university, meeting the needs of stakeholders through excellent education, applied research, innovation and service while its vision is to be a premier technological university known for knowledge creation, innovation, and entrepreneurship. The university has two campuses in the country in Windhoek and the other campus is at Eenhana.

The University's governing structure comprises the Council (supreme policy-making body), Senate and a Students' Representative Council. The Vice-Chancellor is supported primarily by a Deputy Vice-Chancellor: Teaching, Learning and Technology; Deputy Vice-Chancellor: Finance and Operations, a Deputy Vice-Chancellor: Research, Innovation and Partnerships; and a Registrar.

#### 1.1.4.2 Digitalization at NUST

The Namibia University of Science and Technology (NUST), like many other higher education institutions around the world, has been busy with the implementation of various digitisation initiatives/models to enhance teaching, learning, research, and administrative processes, and that has become an ongoing process of the institution.

Digitalisation at NUST encompasses various platforms and technologies that enhance administrative processes, teaching methods, research capabilities, and overall student experience. Here are some key platforms of digitalization commonly in operation at NUST:

(a) Face-to face/eLearning Hybrid blended learning approach.
(b) Learning Management Systems (LMS): LMS platforms like Moodle, Blackboard, and Hybrid System and online course management, content

delivery, student-lecturer interaction, assignment submission, grading, and collaboration among students.

(c) Virtual Learning Environments (VLE): These platforms provide immersive and interactive online learning experiences through virtual classrooms, simulations, and virtual labs, enabling students to engage with course materials in a digital environment.

(d) Online Libraries and Digital Archives: Universities digitize their library resources, including books, journals, research papers, and archives, making them accessible to students and faculty members anytime, anywhere. Platforms like ProQuest, JSTOR, and EBSCOhost are commonly used for digital library services.

(e) Student Information Systems (SIS): SIS platforms manage student data, including enrolment, registration, academic records, grades, and financial information. These systems streamline administrative processes and provide students with self-service options for managing their academic profiles.

(f) Academic Analytics and Reporting Tools: Universities utilize data analytics platforms to track student performance, monitor trends, and generate insights that inform decision-making processes related to curriculum development, student support services, and resource allocation.

(g) Collaborative Tools and Communication Platforms: Tools like Microsoft Teams, Zoom, Google Workspace, and virtual meetings, group collaboration, and project management among students, faculty, and staff members.

(h) E-Learning Content Authoring Tools: These platforms enable lecturers to create interactive multimedia content, including videos, quizzes, simulations, and presentations, to enhance the delivery of online courses and engage students effectively.

(i) Research Management Systems: Universities employ research management platforms to streamline the process of grant management, research proposal submission, project collaboration, compliance monitoring, and intellectual property management.

(j) Campus Mobile Apps: Mobile applications provide students with access to campus services, event calendars, campus maps, transportation schedules, academic resources, and other relevant information on their smartphones or tablets.

(k) Online Assessment and Examination Systems: Digital assessment platforms allow instructors to administer quizzes, tests, and exams securely online, monitor student progress, prevent cheating, and provide timely feedback on student performance.

In conclusion, the abovementioned platforms are available at NUST although not running as expected due to insufficient facilities and human capacity that may create more efficient, accessible, and engaging learning environments that cater for the diverse needs of students and faculty members in the digital age.

### 1.2 Gap identification

Universities in Africa offer training programs by contact and online to learners. Whereas full-time students acquire entrepreneurship skills mainly by contact, open and distance learning students do so by online. Short courses are also offered to benefit communities surrounding universities via contact. Thus, approaches of imparting entrepreneurship skills differ in learning institutions around the world. Program costs are also influenced by modes, formalization and duration of learning. In this project, the use of digital devices and tools by community members and HEIs is investigated to understand how the European digital learning and teaching methods, by LAB and TuDo, may fit culturally into the African target HEIs. African partner HEIs have special and different contents of entrepreneurship. NUST offers solar technology courses and UNAM artificial intelligence for entrepreneurship training.

The project explores the digital landscape and e-participation current learning and teaching methods in target HEIs programs with the purpose of understanding how entrepreneurship skills may be imparted in local communities. Understanding the digital landscape is important for developing the mode of imparting skills and co-designing solutions. Since digital devices and tools are likely to support life-long and inclusive learning, developing knowledge in their use is important.

### 1.3 Objectives

This work package sought to address the following questions:

(a) What digital devices do communities and HEIs commonly use?
(b) What digital tools are the community and HEIs conversant with?

(c) What is the major use of digital devices and tools?
(d) What is the role of digital tools in acquisition of entrepreneurship skills?
(e) What could be the major challenges in the role of digital devices and tools for open university courses (informal learning) via Living Labs in rural villages?

The general objective of this work package was to explore the digital landscape and e-participation in communities and the selected higher learning institutions. Thus, the specific objectives were as follows:

(a) Assess the ability to operate digital hardware such as computers, smart-phones and lap-tops
(b) Assess the ability to use digital tools such as Whatsapp, Facebook, websites, Zoom and Teams
(c) Compare use of digital tools and hardware between general use and education use
(d) Identify the most commonly used approach of acquiring entrepreneurship skills among contact only, online only, contact and online, and hybrid
(e) Identify challenges in use of digital devices such as smart-phones and computers, and in network connectivity issues

### 1.4 Rationale

Understanding the digital land landscape and e-participation in communities and higher education institutions (HEIs) is important for the transmitting and acquisition of entrepreneurship skills and receiving feedback. Since HEIs are not necessarily located in the targeted communities, the contact only approach may not be effective. Moreover, since knowledge is also sourced from institutions in faraway countries, digital skills are important. This project will explore the digital landscape in communities and selected African HEIs. Since the collaboration and co-design practices will be jointly created by partners involving local rural villages, HEIs and other stakeholders who are not in the same locality, the digital landscape will be very important to bridge the gap among them. Communal entrepreneurship education, new assessment methods, entrepreneurial mindset training and co-designing of solutions will need roles of digital skills for success.

# CHAPTER TWO

# MATERIALS AND METHODS

The chapter presents the materials and methods used in the study. Emphasis is placed on areas of study, variable selection and data identification, data collection instruments, data summary and data analysis.

## 2.1 Data collection centres

Lecturer and student data were collected at participating institutions. However, community data were collected from 4 different communities away from participating institutions. In Zambia data were collected in Luanshimba community which is some 5 km north of Mulungushi University along the main road from Lusaka to northern parts of Zambia, and the Kasisi community which is some 30km east of Lusaka. In Nambia, the communities are Groot Aub and Penduka communities.

## 2.2 Data collection instruments

Data were collected by means of questionnaires. Students provided data through the questionnaire in Appendix I; teaching staff provided data through the questionnaire in Appendix II whereas community members provided data through the questionnaire in Appendix III. Convenience sampling was followed for all respondents. The teaching staff were purposely selected based on the courses they teach. Students were conveniently sampled from the degree programs with entrepreneurship components. All community members who came for the meeting for data collection were interviewed. The summary of sample respondents is given in Table 1.

**Table 1:** ***Summary of sample size by country and institution***

| | Teaching Staff | Students | Community | Total |
|---|---|---|---|---|
| Mulungushi University | 6 | 64 | 23 | 93 |
| University of Lusaka | 4 | 56 | 7 | 67 |
| University of Namibia | 3 | 13 | 8 | 24 |
| Namibia University of Science and Technology | 3 | 8 | 31 | 42 |
| Total | 16 | 141 | 69 | 226 |

The total sample comprised 141 students, 16 lecturers, and 69 community members. The diverse sample allowed us to capture a broad range of perspectives and experiences related to entrepreneurship education and practice.

### 2.3 Data collected

For lecturers and students, data collected were on perceptions of respondents on the teaching platforms, teaching methods and learning tools for entrepreneurship in the light of the Ubuntu philosophy with a view of understanding how co-creation of solutions could be implemented in the Living Laboratories. Interest was in the experience of using different teaching methods and the ability to apply entrepreneurship tools with the methods used under different teaching platforms. For the community, the data were on entrepreneurship activities involved in and the challenges faced. The data were disaggregated by gender and age groups of respondents.

### 2.4 Data analysis

Analysis involved use of data summary instruments such as frequency tables and bar charts. To facilitate comparisons, bar charts were scaled in percentages and mean scores by institution. Scores ranged from 1 to 5 for low experience to high experience in use of entrepreneurship tools, methods and platforms, and for very easy to very hard to use tools, methods and platforms. Segregation by gender and age was to capture effectiveness of participation under Ubuntu which is generally guided by these two elements.

# CHAPTER THREE

# RESEARCH FINDINGS DIGITAL LANDSCAPE AND E - PARTICIPATION OF FORMAL AND INFORMAL LEARNING COMMUNITIES

Findings are structured to address the different objectives of the study, and are categorized by students, lecturers and community participants for different institutions. Objectives are addressed within each category as given in the subsequent sections. The reflection of the Ubuntu philosophy is given in the summary at the end of the chapter.

## 3.1 Findings on Students' Digital Use and E-Participation in Formal Learning

We study how students engage with digital tools and electronic participation within formal educational settings.

### 3.1.1 Ability to operate digital hardware

On ability to operate digital hardware such as smartphones, personal computers, tablets and public computers, all respondents in all the institutions were found to be able to operate these pieces of hardware. This implies that all sampled students were found to be capable of using the common digital hardware. Thus, students may be co-opted in online training for community members.

### 3.1.2 Ability to use common digital programs

The ability to use common digital programs for Microsoft Office was found to be common among students in all institutions. All students were found to be able to use digital programs like Excel, Word, Powerpoint and other programs on Microsoft Office which are basically for reporting training activities and providing feedback.

### 3.1.3 Frequency of use of digital tools in general use

The frequency of use of digital tools like WhatsApp, Facebook, websites, Zoom and Teams in general use was found as shown in Figure 1.

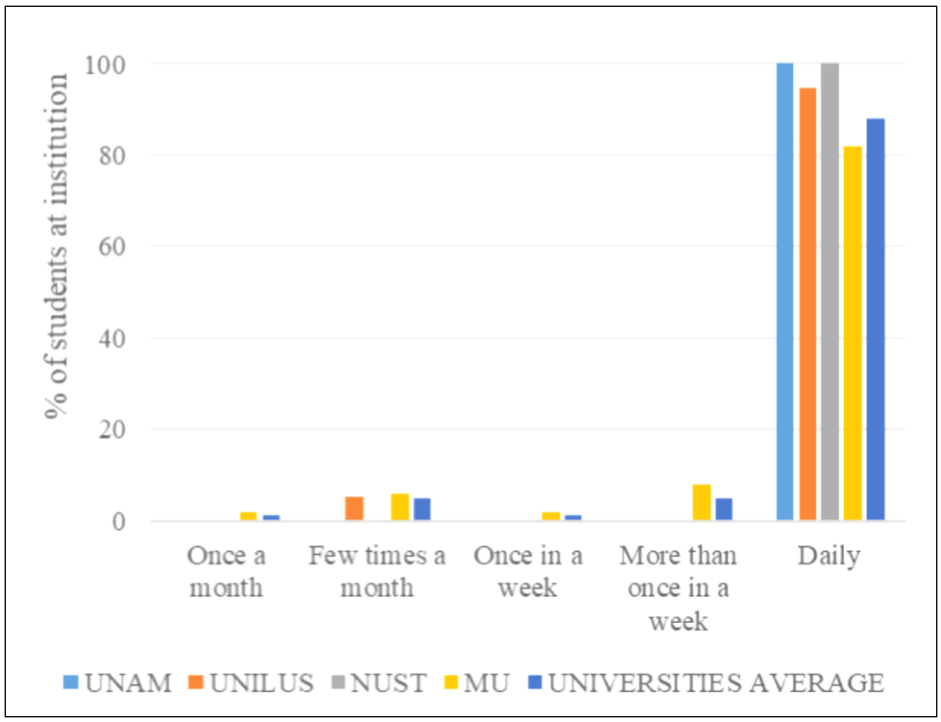


**Figure 1:** ***Frequency of use of digital tools for general use***

The Figure reveals that the daily use of digital tools was found to have the highest frequency of at least 80%. The proportion of students with daily use of digital tools was 82% for MU, 95% for UNILUS and 100% for both NUST and UNAM. Thus, the daily use of digital tools was found to be the highest with 88% as the average for the four universities.

The proportion of students using digital tools more than once a week was found to be 8% for MU and none for the other universities. This outcome gave an all university average of 4.8%. The proportions for the once per week were 2% for MU and none for the other universities which gave an all universities average of about 1.2%. For the few times a month, MU was found to have a proportion of 6% and UNILUS 5.3% which gave a proportion of 4.8% as the all universities average. Lastly, for the once per month, MU was found to have a proportion of 2% and none for the rest of the universities which gave an average percentage of 1.2%. These findings reveal the following:

(a) daily use of digital tools is common among students in all universities

(b) reduced daily frequency of use for MU and UNILUS could be attributed to lack of digital hardware and reduced access to public digital hardware faced by students.

### 3.1.4 Frequency of use of digital tools in university education

The frequency of use of digital tools like WhatsApp, Facebook, websites, Zoom and Teams in university education was found as shown in Figure 2.

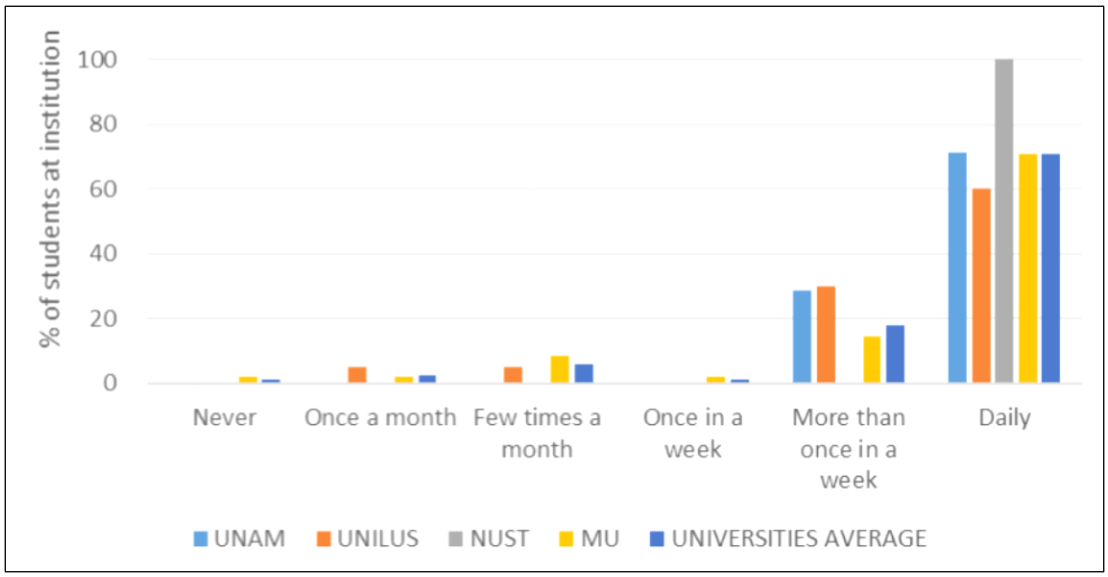


**Figure 2:** ***Frequency of use of digital tools for university education use***

The figure indicates that the frequency of daily use of digital tools for education use is somewhat lower and the frequency of the more than once a week somewhat more than the respective frequencies for general use. The proportion of students with daily use of digital tools was found to be 60% for UNILUS, 70.8% for MU, 71.4% for UNILUS and 100% for both NUST. Thus, the daily use of digital tools for education use was found to have a reduced average for the four universities at 71.1% from 88% for general use.

The proportion of students using digital tools for more than once a week was found to be 0% for NUST, 14.6% for MU, 28.6% for UNAM, and 30% for UNILUS. This outcome gave an all university average of 18.1%. Thus, the one per week frequency was found to have an increased university average. The proportions for the once per week were 2.1% for MU and none for the other universities which gave an all universities average of about 1.2%. For the few times a month, MU was found to have a proportion of 8.3% and UNILUS 5% which gave a proportion of 6% as the average for all universities. In the case of the once per month use, MU was found to have a proportion of 2.4%, UNILUS 5% and none for NUST and UNAM to give an average percentage of 2.4%. The never used frequency was found to be 2.1% for MU and none for the other three universities. Thus, findings suggest the following:

(a) daily use of digital tools for educational use is lower than for general use

(b) reduced use of digital tools for education suggests limited emphasis by teaching staff

(c) emergency of the never used outcome implies that students could proceed academically without use of digital tools and related hardware at MU.

### 3.1.5 Need for training in digital tools

On the need for training in digital tools like WhatsApp, Facebook, websites, Zoom and Teams, all students didn't indicate the need for training. This outcome suggests that students were generally found to be competent in use of the tools.

### 3.1.6 Approaches of acquiring entrepreneurship skills

The student distribution for approaches of acquiring entrepreneurship skills is presented in Figure 3.

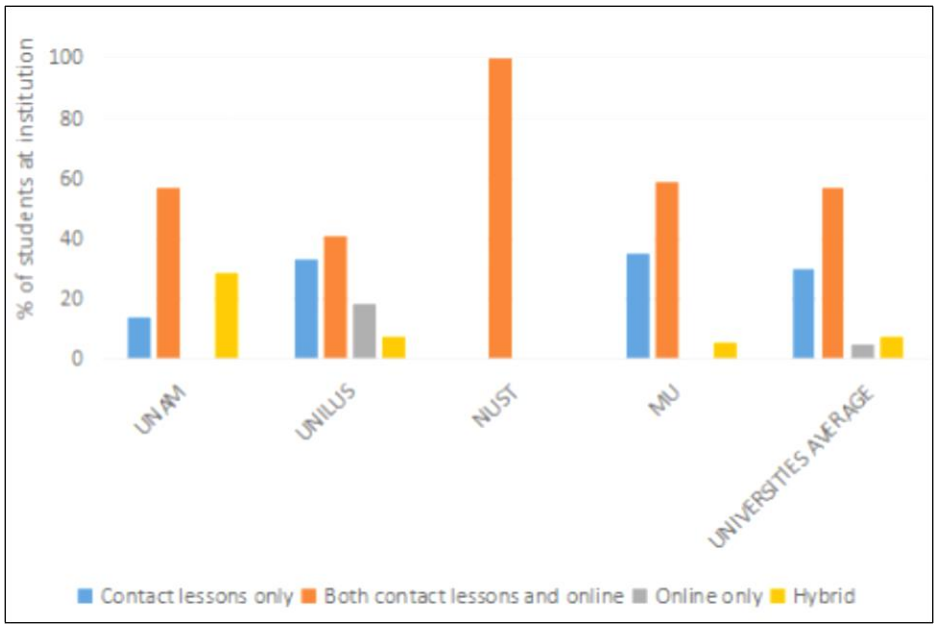


**Figure 3:** ***Approaches of acquiring entrepreneurship skills***

The figure shows that students acquired entrepreneurship skills, mainly, through the combination of contact and online approaches in all institutions. All or 100% of the sampled students at NUST were found to have acquired entrepreneurship skills a combination of these approaches. At UNAM, UNILUS and MU, the proportions of students acquiring entrepreneurship skills using this combination were found to be about 58%, 40% and 60%, respectively, which gave an average of about 58% for all

the universities. Thus, this approach was found to be the most popular way of acquiring entrepreneurship skills in the participating institutions.

Acquisition of entrepreneurship skills using the online approach only was found to be the least popular approach. Only UNILUS was found to have a proportion of 18% of sampled students acquiring entrepreneurship skills strictly through online approach. Interestingly, UNAM, UNILUS and MU were found to have students who acquired entrepreneurship skills through the hybrid approach which entails handling contact and online classes simultaneously. The contact approach was found to be the second most popular approach in all the universities. However, UNILUS was found to have a balanced combination of approaches in that all the four approaches were vehicles for acquiring entrepreneurship skills. The other institutions, irrespective of country, were found to have transferred these skills selected approaches only. Thus, in the envisaged Living Labs, the combination of contact and online approach will, perhaps, the handiest approach to follow in transferring entrepreneurship skills to communities.

### 3.2 Findings from Lecturers' Digital Use and E-Participation in Formal Learning

#### 3.2.1 Ability to use digital tools

The ability to use digital tools like WhatsApp, Zoom and Teams by institution is summarized in Figure 4.

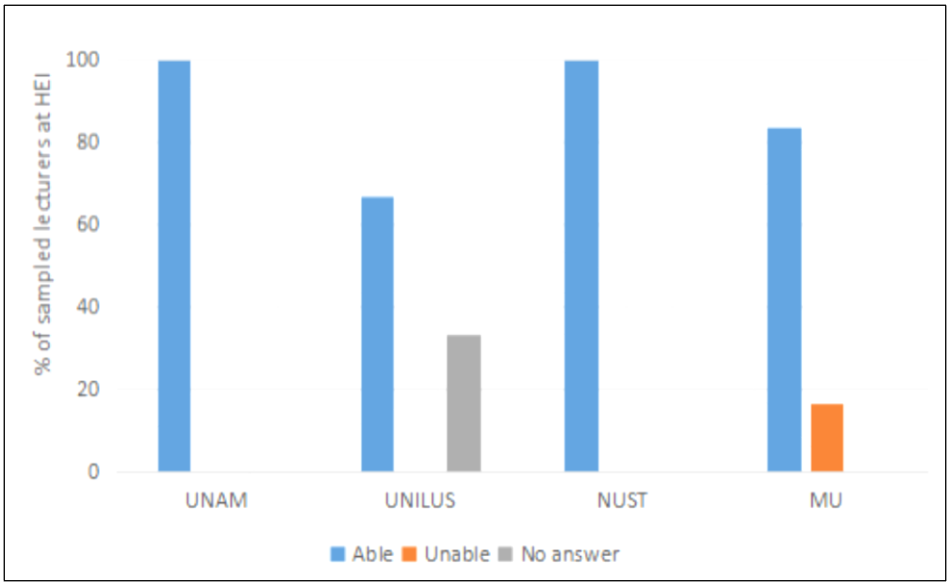


**Figure 4:** ***Ability of lecturers to use digital tools***

The figure shows that 100% of the sampled lecturers at UNAM and NUST were found to be able to use digital tools like WhatsApp, Zoom and Teams. Thus, all lecturers in these two Namibian institutions could be said to be able to competently handle online teaching programmes using these tools. This outcome could be a result of the long history of having digital and artificial intelligency learning at the two institutions. In the case of Zambian institutions, about 66.7% and 83.3% of the sampled lecturers at UNILUS and MU, respectively, were found to be able to use digital tools. About 16.7% of lecturers at MU were found not to be able to use all or some of these digital. At UNILUS, about 33.3% of sampled lecturers elected not to answer the question. Among these tools, Microsoft Teams was found to be the least used tool by lecturers in all institutions. Thus, some lecturers may need to be oriented in the use of these tools.

Identified challenges in use of digital tools were found as follows:

(a) Insufficient skills for some lecturers especially in Teams
(b) Unreliable internet connectivity
(c) Reliance on own financed internet connectivity
(d) Limited knowledge in use of all applications of the individual tools
(e) Limited to teach others
(f) Limited capacity to impart knowledge as compared to contact

### 3.2.2 Easiness of teaching online entrepreneurship skills

The distribution of lecturers by easiness to offer entrepreneurship skills by online platform was observed as summarized in Figure 5.

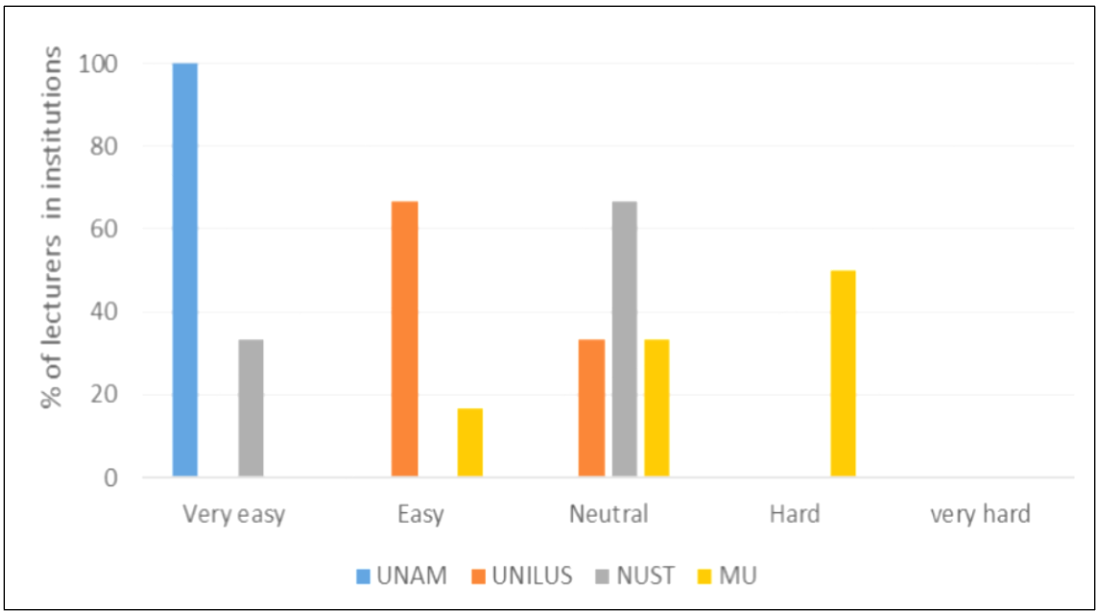


**Figure 5:** ***Easiness of teaching entrepreneurship skills online***

The figure indicates 100% of lecturers at UNAM were found to find it very easy to use online tools for teaching entrepreneurship skills. However, in the other institutions, there were varied outcomes. At NUST, only 33.3% of sampled lecturers were found to find it very easy to teach entrepreneurship skills online and the larger proportion of 66.7% were found to be neutral or unsure to teach entrepreneurship skills online. Thus, although 100% of sampled lecturers at NUST were found to be able to use online tools, applying these tools for entrepreneurship training was found to be challenging.

In the case of UNILUS, 66.7% of sampled lecturers were found to find it easy to teach entrepreneurship skills online whereas the other 33.3% were found to be neutral or unsure. This outcome suggests that the 66.7% of lecturers found to be able to use digital tools like WhatsApp, Zoom and Teams could be the ones found to find it easy to teach entrepreneurship skills online. The 33.3% which did not indicate ability to use online tools could be the ones in the unsure category. Thus, there will be need for some training to raise the competence of lecturers in digital tools for teaching entrepreneurship skills online.

For MU, only 16.7% of sampled lecturers were found to find it easy to teach entrepreneurship skills online. Whereas 33.3% were found to be neutral or unsure, a bigger proportion of 50% were found to find it hard to teach entrepreneurship online. Thus, MU was found to have a much larger need for training to raise competence in online teaching of entrepreneurship skills.

In all institutions, however, there were no lecturers found in the very hard category. This implies that orientation training would be sufficient to retool lecturers.

### 3.2.3 Easiness of offering own courses online

The easiness of offering own courses online, the findings from among sampled lecturers were as summarized in Figure 6.

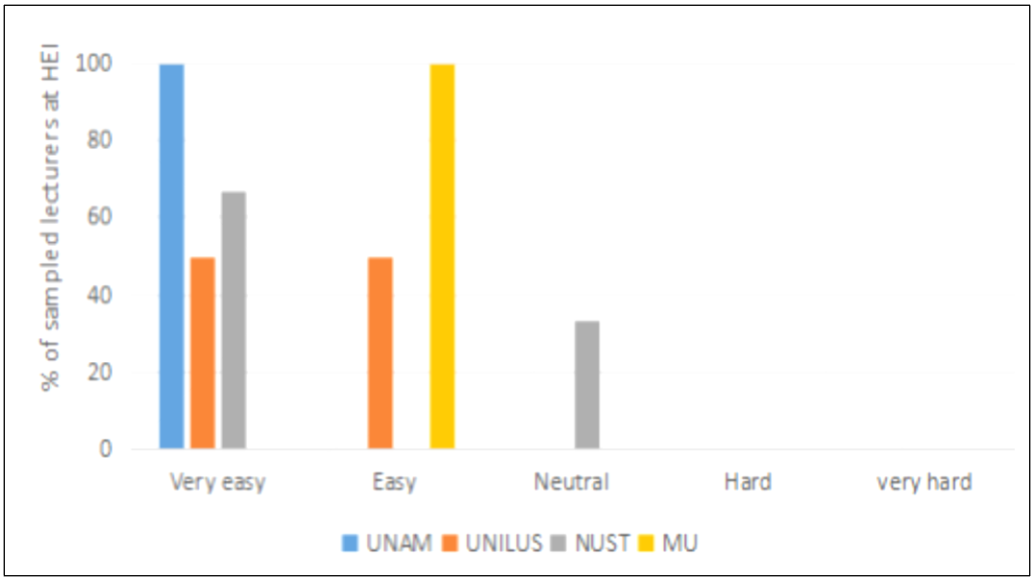


**Figure 6:** ***Easiness of offering own courses online***

The figure shows that all institutions were found to have many lecturers with high ability to offer their own courses online other than entrepreneurship skills. All the UNAM lecturers sampled indicated that they find it very easy to offer their own courses online. However, MU also indicated 100% of sampled lecturers with the ability to teach their own courses online but in the easy rather than very easy category. In the case of UNILUS, 50% of sampled lecturers were found in the very easy category and the other 50% in the easy category. Thus, UNILUS was found to have lecturers able to manage online training of their own courses. For NUST, 66.7% of sampled lecturers were found to be in the very easy category and 33.3% in the neutral or unsure category. However, no lecturers were found in either the hard or very hard categories which implies that all sampled lecturers in the four institutions could manage online teaching if orientation training is done. Since there is a stronger indication of ability to use online teaching for own courses as compared to the indication for entrepreneurship, training could be needed to narrow the gap between the two types of courses.

### 3.2.4 Easiness of using teaching methods for online of own courses

The easiness of using different online learning is shown in Figure 7.

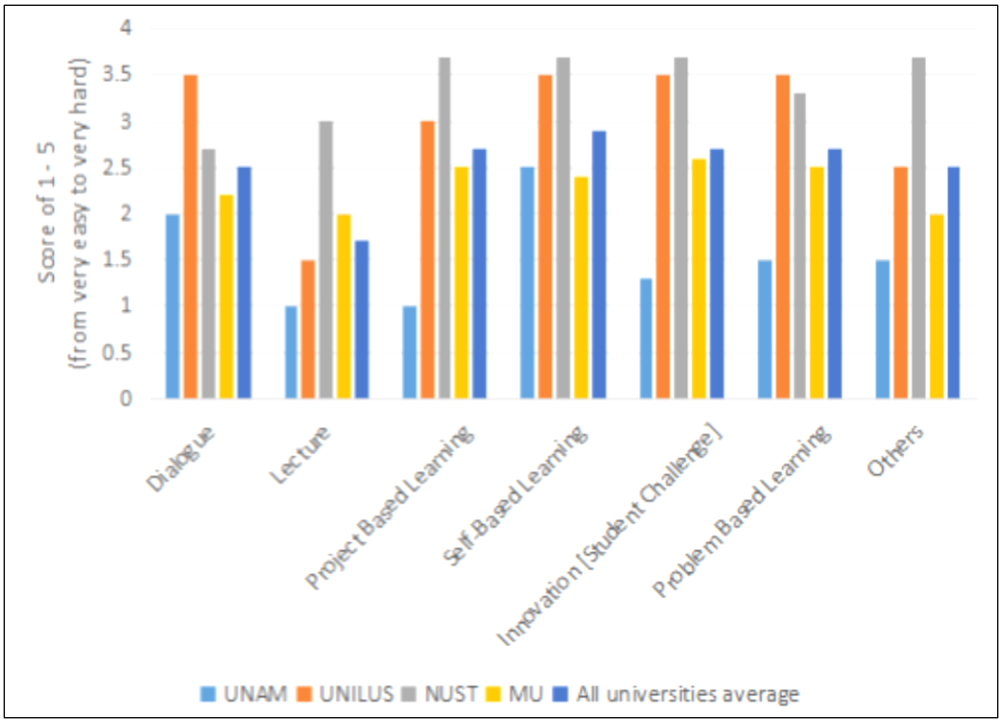


**Figure 7:** ***Easiness of teaching methods for online learning***

The figure reveals that the lecture and dialogue methods seem to be the easiest methods by the selected institutions for conducting online lessons. UNAM was found to indicate the score of 1 the following methods - lecture and project-based learning which suggests that these methods could be more preferred for conducting online lessons. For innovation, problem and dialogue methods, the score ranged from just above 1 to 2 which indicates that for these methods, the institution found it easy for handling online lessons. However, for self-based learning the score was 2.5. Thus, UNAM was found to have it relatively easy to conduct online lessons with all methods.

UNILUS was found to have the score of 1.5 for the lecture method, and scores of 3,0 to 3.5 for the rest of the methods. These scores imply that UNILUS was found to find it relatively easy in conducting online lessons with the lecture method. For the rest of the methods, online lessons were found to be marginally hard. The score for the other methods not given in the research was found to be 2.5 which implies that sampled lecturers could find it somewhat easy to undertake online courses.

NUST was found to have scores of 2.7 and 3.7 for all methods including those not listed in the study. Thus, these results imply that the relative ease of the sampled lecturers for conducting online lessons was only marginal.

For MU, the scores for all teaching methods ranged between 2.0 and 2.6 which suggests that the sampled lecturers indicated that all methods were just marginally easy for use in conducting online lessons. The lecture method was found to be marginally much easier to apply as compared to the other methods.

### 3.2.5 Approach comparisons in offer of entrepreneurship skills

The offer of entrepreneurship skills by different approaches are summarized in Figure 8 below.


**Figure 8:** ***Comparisons in offer entrepreneurship skills***

The figure indicates that entrepreneurship skills were found to be imparted mostly by a combination of contact and online approaches in both countries. This combination was found to be dominant at MU, NUST and UNAM where half to two-thirds of lecturers were found to use it. The contact lessons approach was also found to be commonly applied in all the sampled institutions in both countries. At least one-third of the lecturers in both countries' samples were reported to use it. However, the hybrid was only found to take place at UNILUS where two-thirds of sampled lecturers were found to use it. Thus, the contact lessons only approach was found to exist in all institutions followed by the combination of contact lessons and online approach.

### 3.2.6 Easiness of online and contact lessons for entrepreneurship skills

The comparisons in relative ease of offering entrepreneurship skills by online and contact lessons are summarized in Figure 9.

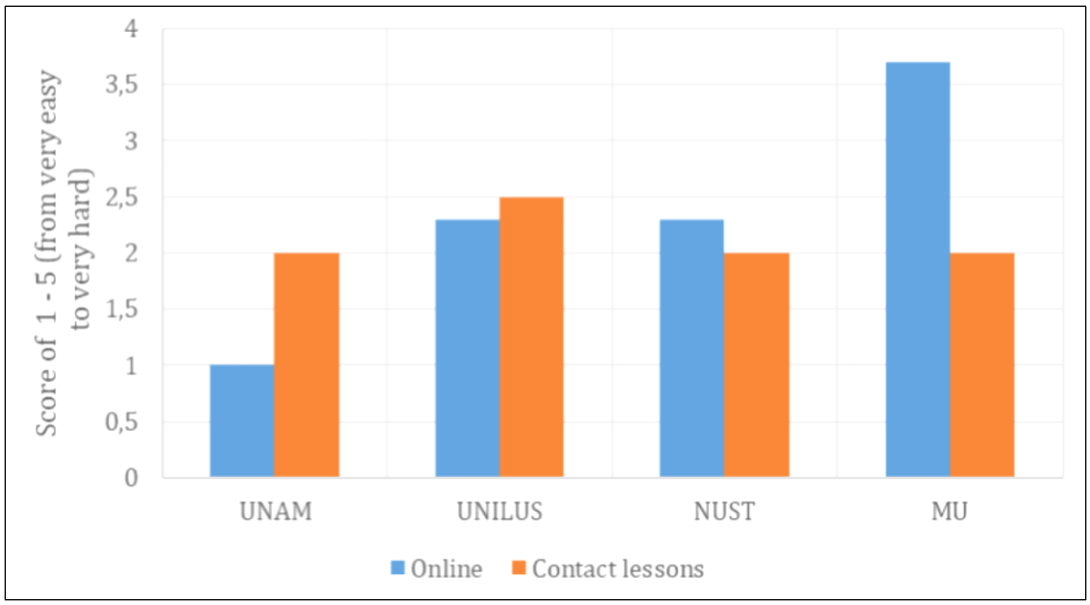


**Figure 9:** ***Easiness of offering skills by online and contact approaches***

The figure indicates differentiated levels of easiness of offering entrepreneurship skills across the participating institutions in the two countries. UNAM was found to have an average score of 1 for online offering of entrepreneurship skills which implies that it found it very easy to use the online platform. For NUST and UNILUS, the score was 2.3 which implies that these two institutions were found to have relative ease in using the online platform for offering entrepreneurship. However, MU was found to have a score of 3.7 which is close to neutral. Thus, this lecturers in this institution could have some challenges in using the online platform for offering entrepreneurship skills.

The use of contact lessons could be the more relatively easily used platform for offering entrepreneurship skills. UNAM, NUST and MU were found to have a score of 2.0 whereas UNILUS a score of 2.5. Thus, these scores indicate that all institutions in both countries found it relatively easy to offer entrepreneurship skills by contact lessons.

### 3.3 Analyzing Digital Use and E-Participation in Informal Learning in Zambia and Namibia

We explored the entrepreneurial activities and challenges faced by community members in two villages in Zambia and two villages in Namibia. Addressing the

specific entrepreneurship needs of the community and involving local stakeholders, the Community Pilot Study in Zambia and Namibia aims to understand the current situation and improve the entrepreneurial skills of the population.

The SmartVille project was started with the aim of establishing Educational Living Labs in Namibia and Zambia. The Educational Living Labs (ELLs) are innovation centers for developing "sustainable entrepreneurial villages" in the respective countries. Work Package 2 of the project's foci are aimed at exploring appropriate short entrepreneurship courses and informal and formal learning approaches of course delivery at the Universities in Namibia and Zambia as well as to the communities through the envisaged ELLs to be established in selected communities in Namibia and Zambia in Work Package 3.

For this purpose, data was collected from lecturers, students and community. Furthermore, data was collected from secondary sources such as articles and government published documents.

### 3.3.1. Description of the Community Pilot Study in Zambia

To evaluate the current state of entrepreneurship education and enhance community skills, we have chosen two communities in Zambia, namely, Luanshimba Community in Kapiri Mposhi Disteict of Central Province and Kasisi Community in Chongwe District of Lusaka Province (see the provincial map of Zambia).

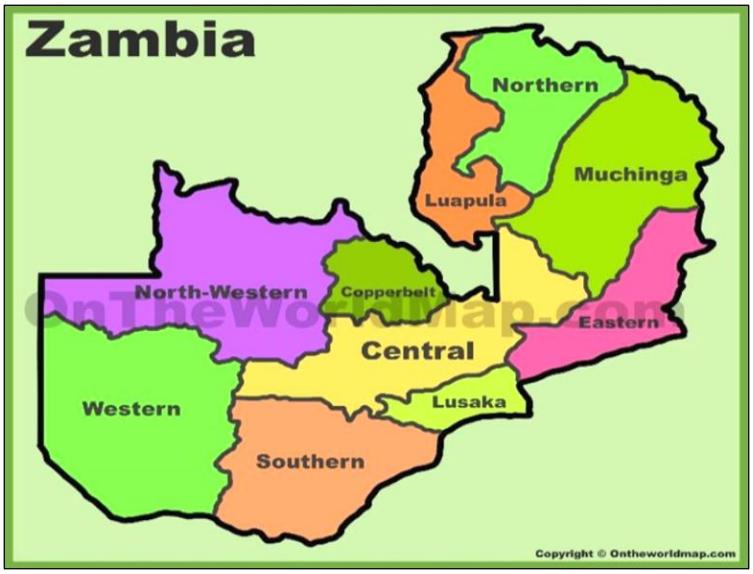


**Figure 10:** ***Provincial map of Zambia*** *Source: (CSO, 2010; ZamStats, 2022).*

### 3.3.1.1 Kapiri Mposhi District and Luanshimba Community

Luanshimba is one among many rural communities in Kapiri Mposhi District in Zambia, covering an estimated total area of 9, 688.2 square kilometers. Kapiri Mposhi is one of the rural towns in Central Province of Zambian and is an administrative headquarters for Kapiri Mposhi District.

It is located along the Great North Road and is about 220 kilometers from Lusaka, the capital city of Zambia (ZamStats, 2022), at the junction of the road connecting the Copperbelt Province as well as the junction of two main rail line – Zambia railways running from Livingstone to the Copperbelt and Congo DR and Tanzania Zambia Railways (TAZARA) from Kapiri Mposhi to Nakonde and Dar-Es-Salaam – Tanzania. The town is significant due to its railway and road connection points, linking the copperbelt, Lusaka and the Northern Province towns. Thus, it serves as a transit town to both the Southern and Northern parts of the country. Luanshimba Community is located about 33 kilometers from the Central business area of Kapiri Mposhi Town Centre.

In terms of political arrangements, Kapiri Mposhi Town has one constituency which is called Kapiri Mposhi Central. The community from which data were collected is located some 30 km south of Kapiri Mposhi town and about the same distance north of Kabwe along the Great North Road (see Figure 11).


**Figure 11:** ***Map of Zambia section showing Kapiri Mposhi*** *Source: ZamStats 2022*

#### 3.3.1.2 Kasisi community

The University of Lusaka plans to establish a living lab for its SmartVille project in the Kasisi area. Kasisi community is found in Chongwe District, under the Lusaka Province of Zambia. The district borders the Lower Zambezi National Park, one of the country's premier parks. Kasisi community is about 30 kilometers from the capital city of Lusaka, and closer to UNILUS Silverest campus. The community is predominantly rural, with agriculture being a primary source of livelihood. People engage in farming activities such as growing maize, gardening, vegetables, and keeping livestock. The community has a population of over 13500 households and people are known for their vibrant culture and community spirit. The community has rich cultural traditions, including music, dance, and storytelling. Traditional ceremonies and festivals are an integral part of their cultural heritage.

The University of Lusaka plans to partner with the Kasisi Agricultural Training Centre (KATC) found within Kasisi, about 10 kilometers away from the Kenneth Kaunda International Airport. KATC has some facilities that are ideal for a living lab and is already on the ground working with people in the Kasisi community and other surrounding areas. KATC works on the ground with people living in Chongwe and Rufunsa Districts, where agriculture is the primary livelihood. The major crops grown in the area include maize, ground nuts, cowpeas, soybeans, sweet potatoes, and cassava. The dominant vegetation type in the two districts is dry Miombo woodland and Mopane woodland.

Kasisi Agricultural Training Centre offers three- to five-day and two-week courses covering a range of topics of interest to subsistence farmers including farm management, organic vegetable production, agroforestry, dairying, animal traction, organic integrated pest management, organic cotton production, and beekeeping. The courses are offered at the center as well as at on-farm demonstration plots in communities.

### 3.3.2 Description of the Community Pilot Study in Namibia

For the general locations of the communities in Namibia, refer to the map of Namibia in Figure 12.


**Figure 12:** ***Map of Namibia***

To evaluate the current state of entrepreneurship education and enhance community skills, we have chosen two communities in Namibia. Our aim is to study the major challenges facing entrepreneurship in Namibia, including finance, training, government regulations, crime, infrastructure, markets, and technology.

### 3.3.2.1 Groot Aub Community

The general characteristics of the Groot Aub Communities are outlined in the subsequent subsections:

#### 3.3.2.1.1 Race/Ethnicity

- Cultural background: Majority of the residents are Damara speaking people.
- Employment: Majority are employed outside the community, specifically in Windhoek or Rehoboth towns.
- Housing: Majority of the houses are constructed with makeshifts
- Education: There is a Junior Secondary School, one of the 3 pilot schools in the NETA Project, a clinic, and a police station are also available within the community.
- higher rates of poverty

#### 3.3.2.1.2 Gender

- Inequality due to gender identity or expression
- Wage gaps and limited access to employment

#### 3.3.2.1.3 Sexual Orientation

- Females face discrimination and stigma based on their sexual orientation leading to gender-based violence.

#### 3.3.2.1.4 Disability

- Encounter physical, sensory, cognitive, or mental health challenges
- Lack of public recreational spaces for young people, no public transport services, and access to electricity and internet connections.
- Poor education and social interactions among the community members

#### 3.3.2.1.5 Socioeconomic Status

- Economically disadvantaged due to high unemployment rate and limited access to resources and opportunities.
- Stereotypes that perpetuate cycles of poverty and marginalization of the community.
- Poor governmental services such as provision of clean drinking water, sanitation, and electricity.

### 3.3.2.2 Penduka Community in Namibia

The Penduka community is located on a river bank as shown in Figure 13, and its brief description is outlined below.

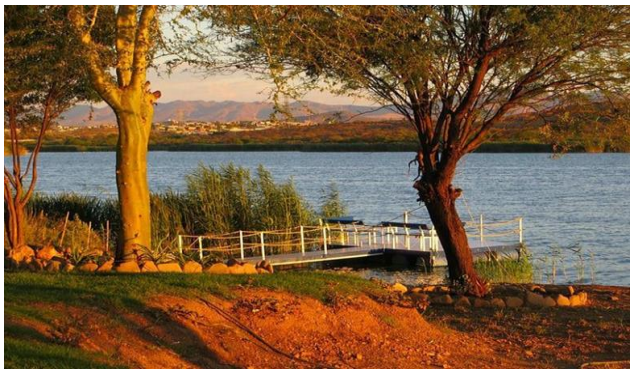

**Figure 13:** ***Village Penduka in Namibia***

Penduka is located near the city of Windhoek, the capital of Namibia. It is around 15 minutes' drive from the city center in the Northwestern direction. Directly situated at the riverbank of Goreangab dam in Katutura. Specifically, it is situated on the outskirts of Windhoek, providing easy access to both urban amenities and rural landscapes. This location allows Penduka to serve as a hub for women from various backgrounds to come together, access resources, and participate in the community's empowerment initiatives.

Penduka is a community project located in Namibia that aims to empower women through various initiatives such as skills training, employment opportunities, and social support. The project was established in 1992 by Christien Roos and is situated on the outskirts of Windhoek, the capital city of Namibia.

One of Penduka's key initiatives is the production of handcrafted items, including textiles, pottery, and jewelry, which are sold locally and internationally. These products not only provide income for the women involved but also help preserve traditional Namibian craftsmanship.

Additionally, Penduka offers training programs in sewing, embroidery, and other vocational skills to equip women with the tools they need to become financially independent. The project also provides a safe and supportive environment for women to connect, share experiences, and access resources.

Penduka's impact extends beyond economic empowerment; it also promotes social cohesion and women's rights in Namibia. By empowering women and providing them with opportunities for personal and professional growth, Penduka contributes to the overall development of communities in Namibia.

#### 3.3.2.3 Mix settlement in Namibia

Mix settlement is an informal community located north-east of Windhoek, Namibia, along the A1 highway towards Okahandja. With a population of around 6,000, many residents face unemployment and rely on low-wage jobs in Windhoek, such as construction or domestic work. Others, particularly young people, find work in nearby charcoal packaging farms. Entrepreneurial spirit exists within the community, with residents running small businesses like firewood sales, meat stalls, barbershops, and bakeries.

Despite lacking access to grid electricity, the settlement benefits from clean water distributed through community taps. Residents purchase water cards from municipal offices in Windhoek and use them to access water points.

Education presents a challenge, with students traveling long distances, even to Windhoek, for schooling. However, young children have a beacon of hope in Inge's Kindergarten. This non-profit organization provides free educational and social programs to underprivileged children in Mix settlement. Currently serving over 45 students, with more joining weekly, Inge's Kindergarten offers a vital foundation for the community's future. The facility, built primarily from corrugated metal, also serves as a hub for youth empowerment programs and even provides space for a Christian church to offer voluntary psychological support services.

Life in Mix settlement presents significant socio-economic challenges, with most residents classified as low-income. Yet, the community demonstrates a remarkable spirit, focusing on entrepreneurship and education, particularly through early childhood development programs like Inge's Kindergarten. The future looks brighter with the government's initiative to build a school near the settlement, offering education from primary to secondary levels. The current school is up to grade 3.

### 3.3.3 Analysis of Community Data in Zambia and Namibia

In our report, we wanted to explore the entrepreneurial activities and challenges faced by community members in two villages in Zambia and two villages in Namibia. We ask the community how frequently they use digital platforms like WhatsApp, Facebook, websites, Zoom, or Teams.

#### 3.3.3.1 Comparing frequencies of using digital tools

The results on the frequency of use of digital tools like WhatsApp, Facebook, websites, Zoom, or Teams are summarized in Table 2, and they show that once a month 3% in both countries and once a week in Zambia 3.3% and 10.8 % in Namibia. Daily use 34.3% in both countries and Namibia 48.6% and in Zambia 16.7%.

**Table 2:** ***Frequencies of use of digital tools by time period***

| | | | Never | Once a month | Few times a month | Once in a week | More than once a week | Daily | Total | Weighted average |
|---|---|---|---|---|---|---|---|---|---|---|
| country | Nami-bia | Count | 7 | 1 | 4 | 4 | 3 | 18 | 37 | 37 |
| | | % within country | 18,9% | 2,7% | 10,8% | 10,8% | 8,1% | 48,6% | 100,0 % | 30.3% |
| | Zam-bia | Count | 12 | 1 | 4 | 1 | 7 | 5 | 30 | 30 |
| | | % within country | 40,0% | 3,3% | 13,3% | 3,3% | 23,3% | 16,7% | 100,0 % | 26.2% |
| Total | | Count | 19 | 2 | 8 | 5 | 10 | 23 | 67 | 67 |
| | | % within country | 28,4% | 3,0% | 11,9% | 7,5% | 14,9% | 34,3% | 100,0 % | 24.1% |

Based on the weighted averages, the table shows that the frequency of use of digital tools was found to be, generally, low in the Zambian communities (26.2%) than in their Namibian counterpart communities (30.3%). The Zambian communities were found to have 40% of members who had never used digital tools as compared to 18.9% for Namibia. Moreover, the frequency of daily use was found to be almost 3 times higher for Namibian communities (48.6%) than the Zambian communities (16.7%). This outcome suggests that the communities in Namibia could be more proficient in the use of digital tools, and that ownership of digital devices could be high. On the contrary, ownership of digital devices and proficiency in their use could be low.

### 3.3.3.2 Comparing frequencies of need for training in use of digital devices

The communities were also found to have a significant need for training in the use of digital devices, including personal computers, smartphones, laptops, and tablets, as well as digital tools such as WhatsApp, Facebook, Zoom, Google, email, and website applications as shown in Table 3.

**Table 3:** ***Expression of Training Needs in Digital Devices***

| | | | Yes | No | Total |
|---|---|---|---|---|---|
| country | Namibia | Count | 28 | 8 | 36 |
| | | % within country | 77,8% | 22,2% | 100,0% |
| | Zambia | Count | 30 | 0 | 30 |
| | | % within country | 100,0% | 0,0% | 100,0% |
| Total | | Count | 58 | 8 | 66 |
| | | % within country | 87,9% | 12,1% | 100 |

This need highlights the importance of incorporating digital skills training into educational courses and underscores the community's demand for these competencies in Zambia and Namibia. Our findings reveal that 77% of respondents in Namibia and 100% in Zambia desire this training in digital skills.

### 3.3.3.3 Willingness to participate in online skills training

When we surveyed the community in Zambia and Namibia regarding their willingness to acquire skills for using online tools, 100% of respondents in Zambia expressed eagerness to participate, compared to over 78% in Namibia as indicated in Table 4.

**Table 4:** ***Willingness to participate in online offered skills***

| | | | Yes | No | Total |
|---|---|---|---|---|---|
| country | Namibia | Count | 26 | 7 | 33 |
| | | % within country | 78,8% | 21,2% | 100,0% |
| | Zambia | Count | 29 | 0 | 29 |
| | | % within country | 100,0% | 0,0% | 100,0% |
| Total | | Count | 55 | 7 | 62 |
| | | % within country | 88,7% | 11,3% | 100,0% |

Community members in Zambia and Namibia need training in internet access, smartphone use, time management for participation, understanding online marketing, learning about other communities, and communicating online effectively.

The results in the table implies that the success of online training may depend on the following:

(a) Access to internet and smartphones
(b) Skills for using smartphones
(c) Time available to participate
(d) Interest in learning about other communities
(e) Understanding that most activities now use phones and computers
(f) Knowledge of online marketing
(g) Ability to communicate online

# CHAPTER FOUR

# DISCUSSION, CONCLUSION AND RECOMMENDATION

## 4.1 Discussion

### 4.1.1 Use of digital devices and tools

The use of digital devices and tools was found to be generally high among Namibian Universities as compared to Zambian universities which could be attributed to institutional culture developed through investment into digital technology in Namibia (Spiteri and Rundgren, 2020). The two Namibian universities were found to have digital and artificial intelligence devices with components of the entrepreneurship education curriculum tailored to digital technology. This environment may have led to the development of institutional culture around digital technology. Cochrane (2020) further emphasizes the need to own digital devices as a factor raising proficiency in use of digital devices and tools. Investment into digital technology in universities may encourage students to invest in digital devices as the culture to use digital devices is promoted. Chen, et al. (2020) also suggest that introduction to digital devices at an early age raises the ability to use them in older ages perhaps because a culture is developed early. This could be the major contributing factor in the high use of digital devices and tools among the Namibian universities as these universities seem to have developed digital education early.

The reduced use of digital tools for education as compared to general use is a point of understanding for the success of the project. This outcome implies that under forced conditions, use of devices and tools could be low but benefits need to be aimed for, realized and enjoyed motivating increased participation (Kallunki, et al., 2023). Thus, use of digital devices and tools for community entrepreneurship will need some kind of motivation like academic qualifications for enhanced participation. Garcia-Martinez, et al. (2020) further observed that learners tend to use digital devices and tools less for content creation than other uses. This entails that communities will need some motivation of some kind to keep high use of digital devices and tools.

### 4.1.2 Use of digital tools for entrepreneurship training

Digital tools considered in study included WhatsApp, Facebook, Zoom and Teams. Although these tools were found to be generally used even without formal training,

Facebook has been cited in literature as commonly used in entrepreneurship training. A study by Chen, et al. (2021) found Facebook as a common tool for entrepreneurship training for marketing and social networking. In Tunisia, social networking for women entrepreneurs was found to be predominantly on Facebook (Brahem and Boussema, 2022). Thus, Facebook could be viewed as an important tool in entrepreneurship training. Mack et al. (2017) found use of websites as commonly used in entrepreneurship for opportunity identification by upcoming businesses. Delacroix, et al. (2019) further argues that Facebook entrepreneurship knowledge offers survival rather than transformative skills. Whatever the perspective of entrepreneurship is, the tool offers an opportunity for learners to gain skills. Thus, digital tools in general offer the training for entrepreneurship that universities and communities can take advantage of.

Chen, et al. (2021) further present the blended approach involving online and learning by doing for effectiveness. A comparative study by Cavanaugh and Jacquemin (2015) indicates that online means only may not be very effective in mastering academic content unless they blend with contact. This explains why all universities were found to have contact and online approach as the most popular for imparting entrepreneurship skills to students. In the study, contact was found to be effective for imparting skills by doing. Thus, in managing community entrepreneurship training, a combined approach of contact and online will be more effective than online or contact alone.

### 4.1.3 Comparing easiness of online teaching of entrepreneurship with other courses

Teaching entrepreneurship online was found to be rather hard as compared to teaching other courses especially for MU. A study by Murah and Abdullah (2012) found that teaching entrepreneurship online was rather hard due to its inclination towards student centred as compared to lecturer centredness. Many lecturers tend to be student centred in online teaching as opposed to student centered. Moreover, Bandera, et al. (2018) found that knowledge in use of digital devices and tools increased the attitude of young entrepreneurs in taking business risks. Thus, online teaching has benefits for learners once teachers become student centred in teaching. Interestingly, MU and NUST were found to find online teaching of entrepreneurship relatively harder than the other universities.

## 4.2 Conclusion

The knowledge in use of digital devices and tools seems to be substantial in all learning institutions, and a high proportion of participants are reasonably able to use them. However, a small percentage with limited knowledge still exists. The use for education lags behind that of general use. And use of Teams lags that of Zoom. For entrepreneurship training, the use of a combination of contact and online is the most popular. Thus, reliance on one method in community training will not be successful. The major challenges include limited knowledge in use of some tools, unreliable connectivity, power outages, and limited ability to fund connectivity.

## 4.3 Recommendations

Important recommendations are as follows:

(a) Upgrading training in use of devices and tools to raise competence at both university and community levels

(b) Community centre training on large screen may reduce costs at community level

(c) Adopting the combination of contact and online teaching approaches during the community entrepreneurship activities

(d) Encouraging use of student participation in community entrepreneurship activities

(e) Empowering communities in living laboratories with connectivity for easy application of the combined contact and online teaching approach during the community entrepreneurship activities

(f) Adapting training skills in agriculture, financial management, and marketing into formats for combinations of contact and online

(g) Adapting assessments for entrepreneurial mindset training and innovative assessment methods reflecting community values

(h) Designing Co-Design Practices on contact and online combination approach to enhance social acceptance of entrepreneurial projects

(i) Integrating the contact and online combination approach with co-design practices and the Ubuntu philosophy in entrepreneurship education to foster community and collectivist values.

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# ANNEXES

## 1 Consent form

**SMARTVILLE PROJECT**

**Developing Sustainable and Entrepreneurial Villages through Educational Living Labs in Namibia and Zambia**

**Consent to take part in research**

- I_____voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me in writing and I have had the opportunity to ask questions about the study.
- I understand the outline briefly in simple terms that participation in this research involves answering a questionnaire
- I understand that I will not benefit financially and materially from participating in this research.

I agree to my interview being audio-recorded.

- I agree to participate in photo-sections or short videos in this research
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview which may reveal my identity or the identity of people I speak about.
- I understand that disguised extracts from my interview may be quoted in a published paper, conference presentation or dissertation or documentary.
- I understand that if I inform the researcher that myself or someone else is at risk of harm they may have to report this to the relevant authorities - they will discuss this with me first but may be required to report with or without my permission.
- I understand that signed consent forms and original audio recordings will be retained in confidentiality in SmartVille Project file for hard copies and project google drive for soft copies for a period of 5 years.
- I understand that a transcript of my interview in which all identifying information has been removed will be retained for 5 years.

- I understand that under the freedom of information legislation I am entitled to access the information I have provided at any time while it is in storage as specified above.

- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

Names, degrees, affiliations and contact details of researchers (and academic supervisors when relevant).

***Research participant***

---------- ----------

Signature of participant Date

***Researcher***

I believe the participant is giving informed consent to participate in this study as given

---------- ----------

Signature of researcher Date

## 2. Student Questionnaire

The **SmartVille** project is dedicated to Developing Sustainable and Entrepreneurial Villages through Educational Living Labs in Namibia and Zambia. As a part of the project, we focus on exploring approaches to both formal and informal learning of entrepreneurship education at Universities in Zambia and Namibia. For this purpose, we will collect data from lecturers, students and community. All data will be handled anonymously and used solely for research purposes, adhering to the General Data Protection Regulation (GDPR) guidelines.
For more information please visit: www.smartvillelivinglabs.com

**Background**

**Name of the interviewer:**

**University:**
☐UNAM ☐ UNILUS ☐ NUST ☐ MU
☐ Other:

**Gender:**
☐ Male ☐Female

**Age:**
☐ less or equal to 17 years
☐ 18 - 20 years
☐ 21 - 23 years
☐ 24 - 26 years
☐ above 26 years

**What is your program and level of study?**

**What is your year of study?**

**Have you heard about the term "entrepreneurial mindset"?**
☐ Yes ☐ No

**If "yes", please describe briefly what you associate this term with:**

**If "no", please describe what you think it could be:**

**Entrepreneurship training**

**Do you get entrepreneurship training?**

☐Yes ☐ No

Comments:

**What subjects with aspects of entrepreneurship do you attend or have you attended at the University?**

**What are the entrepreneurship education topics that you learn or learnt in your University?**

**What is/was your mode of study/training for entrepreneurship?**

☐ Full-time ☐ Part-time ☐ Open and Distance Learning-ODL

☐ Informal course e.g. Community members

☐ Other (specify):

**What entrepreneurship skills do you learn or have you learnt?**

**How do/did you get these skills?**

☐ Contact lessons only ☐ Both contact lessons and online ☐ Online only ☐ Hybrid

**What learning approaches are you conversant with for entrepreneurship?**

(Explanation: Dialogue: Knowledge sharing, literature, solving dynamic issues, supporting each other projects; Projects; Implementing Marketing projects, Setting objectives, Reflection and evaluation in team dialogue; Innovation challenges: surprise customer, surprise test, tight time frame)

☐ Lecture ☐ Dialogue ☐ Project-based learning ☐ Self-based learning

☐ Innovation challenges ☐ Other (specify):

| |
|---|
| |

**Please indicate how experienced you are in using the following tools:**

| | 1 – no experience in using the tool | 2 – little experience | 3 – medium experience | 4 – good experience | 5 – very experienced in using the tool |
|---|---|---|---|---|---|
| Wheel of Life | | | | | |
| S.W.O.T. Analysis | | | | | |
| Network | | | | | |
| Value Proposition Canvas | | | | | |
| Empathy Map | | | | | |
| S.C.A.M.P.E.R. Brainstorming Technique | | | | | |
| Design Thinking & Prototyping | | | | | |
| Business Model Canvas | | | | | |
| Action Plan | | | | | |

**Do or did you meet entrepreneurs during the entrepreneurship training?**

☐Yes ☐ No

Comment on your experience with the entrepreneur:

| |
|---|
| |

**Kindly, name some of the entrepreneurs you met**

**For the entrepreneurs you met, did they visit your university or did you visit them?**

**If you visited them, were you accompanied by your teachers?**

☐Yes ☐ No

Comment:

**Kindly, name some companies you visited**

**Among the companies you visit/visited, is/was there an incubator?**

☐Yes ☐ No

Comment:

**If "yes", kindly name the incubator(s)**

**Do/did you get orientation from the teacher to get in touch with various entrepreneurial specialists?**

☐Yes ☐ No

Comments:

**Do or did you develop a business plan with the teacher?**

☐Yes ☐ No

Comments:

**Through your entrepreneurship training, do/did you get a guide on how to manage your money or finances from your teachers?**

☐Yes ☐ No

Comments:

**Do/did you undertake marketing activities for companies?**

☐Yes ☐ No

Comments:

**How frequently do you use digital platforms like WhatsApp, Facebook, websites, Zoom, or Teams in general?**

☐Never ☐ Once a month ☐ Few times a month ☐ Once in a week ☐ More than once in a week ☐Daily

**How frequently do you use digital platforms like WhatsApp, Facebook, websites, Zoom, or Teams in your University education?**

☐Never ☐ Once a month ☐ Few times a month ☐ Once in a week ☐ More than once in a week ☐ Daily

**What devices do you primarily use for accessing digital content?**

☐ Phones ☐ Personal Computers ☐ Tablets ☐ Public computers

☐Other:

Do you have skills in using Microsoft Office such as Excel, Word, etc.?
☐Yes ☐ No
Comments:

| |
|---|
| |

**If "yes", tick your skill level:**
☐ Basic
☐ Medium
☐ Highly skilled

**Would you want to be trained in the use of digital devices like computers, smartphones, laptops, and tablets, and/or the use of digital tools like WhatsApp, Facebook, Zoom, google, email, and website applications?**
☐Yes ☐ No
Comments:

| |
|---|
| |

**If "yes", specify digital devices or tools you would want to acquire further skills in Comments:**

| |
|---|
| |

**Does/did your University have some Entrepreneurship promoting infrastructure you can use for training?**
☐Yes ☐No

**If "yes", indicate the infrastructure**
☐Innovation lab ☐ Computer rooms ☐ Meeting rooms ☐ Accelerator
☐Business incubator ☐ Other:

| |
|---|
| |

**Are there any of the following challenges related to network connectivity in your community?** You can choose one or more.

☐ Electricity availability ☐ Weak connection internet ☐ Lack of adequate coverage

☐Devices to work on ☐ High costs ☐ Fluctuations in internet connection

☐ Others, specify:

| |
|---|
| |

**What do you think are the challenges for entrepreneurship education in your university?**

| |
|---|
| |

**THE END**

## 3 Lecturer/Technician Questionnaire

The **SmartVille** project is dedicated to Developing Sustainable and Entrepreneurial Villages through Educational Living Labs in Namibia and Zambia. As a part of the project, we focus on exploring community approaches to entrepreneurship skills and learning in Zambia and Namibia. For this purpose, we will collect data from lecturers, technicians, students and communities through surveys. All data will be handled anonymously and used solely for research purposes, adhering to the General Data Protection Regulation (GDPR) guidelines.
For more information, please visit: www.smartvillelivinglabs.com

**Background**

**Name of the interviewer:**

| |
|---|
| |

**University**

☐UNAM ☐ UNILUS ☐ NUST ☐ MU

☐ Other:

| |
|---|
| |

**Gender**

☐ Male ☐ Female

**Age:**

☐ 30 years and below
☐ 31-40 years
☐ 41-50 years
☐ 51-60 years
☐ above 60 years

**Education level**

☐MSc/MA Degree ☐ PhD Degree ☐ Diploma ☐ BSc/BA degree

**Position held**

☐Lecturer ☐ Senior Lecturer ☐ Associate Professor ☐ Professor ☐ Assistant Dean
☐Head of Department ☐ Dean ☐ Technician

**What do you associate the term "Entrepreneurial Mindset" with?**

| |
|---|
| |

**Have you ever taught content on the "Entrepreneurial Mindset"?**

☐Yes ☐ No

**If yes, please describe that content and how it was taught:**

| |
|---|
| |

**Skills**

**Do you offer entrepreneurship skills to learners?**

☐Yes ☐ No

Comment:

| |
|---|
| |

**If yes, to whom do you offer these skills?**

☐Full-time students ☐ Part-time students ☐ Open and Distance Learning-ODL students ☐ Informal students, e.g. Community members

☐Others (specify):

| |
|---|
| |

**Indicate the skills you offer:**

| |
|---|
| |

**How do you offer these skills?**

☐Contact lessons only ☐ Both contact and online ☐ Online lessons only

**How easy or hard do you find the training of these skills by approach?**

| Approach | Very easy | Easy | Neutral | Hard | Very hard |
|---|---|---|---|---|---|
| Contact lessons | | | | | |
| Online lessons | | | | | |
| Both contact and online | | | | | |

**What do you think needs to be done to improve your ability to offer entrepreneurship skills?**

Contact lessons:

| |
|---|
| |

Online lessons:

| |
|---|
| |

**Are you able to train by digital tools like WhatsApp, Zoom, and Microsoft Teams?**
☐Yes ☐ No
Comment:

| |
|---|
| |

**Name the subjects that you are teaching:**

| |
|---|
| |

**Please indicate how experienced you are in using and teaching the following tools:**

| | 1 – no experience in using the tool | 2 – little experience | 3 – medium experience | 4 – good experience | 5 – very experienced in using the tool |
|---|---|---|---|---|---|
| Wheel of Life | | | | | |
| S.W.O.T. Analysis | | | | | |
| Network | | | | | |
| Value Proposition Canvas | | | | | |
| Empathy Map | | | | | |
| S.C.A.M.P.E.R. Brainstorming Technique | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Design Thinking & Prototyping | | | | | |
| Business Model Canvas | | | | | |
| Action Plan | | | | | |

**18. What teaching approaches are you conversant with?**
(Explanation: Dialogue: Knowledge sharing, literature, solving dynamic issues, supporting each other projects; Projects; Implementing Marketing projects, Setting objectives, reflection and evaluation in team dialogue; Innovation challenges: surprise customer, surprise test, tight time frame)

☐ Lecture ☐ Dialogue ☐ Project-based learning ☐ Self-based learning
☐ Problem-based learning ☐ Innovation challenges ☐ Other (specify):_____

| |
|---|
| |

**For each teaching approach, indicate easiness of use in face-to-face teaching regarding your subjects:**

| Approach | Very easy | Easy | Neutral | Hard | Very hard |
|---|---|---|---|---|---|
| Lecture | | | | | |
| Dialogue | | | | | |
| Project-based learning | | | | | |
| Problem-based learning | | | | | |
| Self-based learning | | | | | |
| Innovation/student challenges | | | | | |
| Others (the ones you named above in Question 18) | | | | | |

**For each of these methods, indicate how easily learners grasp the learning:**

| Approach | Very easy | Easy | Neutral | Hard | Very hard |
|---|---|---|---|---|---|
| Lecture | | | | | |
| Dialogue | | | | | |
| Project-based learning | | | | | |
| Problem-based learning | | | | | |
| Self-based learning | | | | | |
| Innovation/student challenges | | | | | |
| Others (the ones you named above in Question 18) | | | | | |

**Indicate easiness of using these methods for online learning regarding your subject:**

| Approach | Very easy | Easy | Neutral | Hard | Very hard |
|---|---|---|---|---|---|
| Lecture | | | | | |
| Dialogue | | | | | |
| Project-based learning | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Problem-based learning | | | | | |
| Self-based learning | | | | | |
| Innovation/student challenges | | | | | |
| Others (the ones you named above in Question 18) | | | | | |

**Indicate easiness of applying these methods for skills related to office work, like accounting, purchasing, etc.:**

| Approach | Very easy | Easy | Neutral | Hard | Very hard |
|---|---|---|---|---|---|
| Lecture | | | | | |
| Dialogue | | | | | |
| Project-based learning | | | | | |
| Problem-based learning | | | | | |
| Self-based learning | | | | | |
| Innovation/student challenges | | | | | |
| Others (the ones you named above in Question 18) | | | | | |

**Indicate easiness of applying these methods for skills related to the field of Agriculture / outside work, like selling, gardening, etc.:**

| Approach | Very easy | Easy | Neutral | Hard | Very hard |
|---|---|---|---|---|---|
| Lecture | | | | | |
| Dialogue | | | | | |
| Project-based learning | | | | | |
| Problem-based learning | | | | | |
| Self-based learning | | | | | |
| Innovation/student challenges | | | | | |
| Others (the ones you named above in Question 18 ) | | | | | |

**Indicate easiness of using these methods for conducting existing skills in the community:**

| Approach | Very easy | Easy | Neutral | Hard | Very hard |
|---|---|---|---|---|---|
| Lecture | | | | | |
| Dialogue | | | | | |
| Project-based learning | | | | | |
| Problem-based learning | | | | | |
| Self-based learning | | | | | |
| Innovation/student challenges | | | | | |
| Others (the ones you named above in Question 18) | | | | | |

**Indicate easiness of using these methods for conducting new skills in the community:**

| Approach | Very easy | Easy | Neutral | Hard | Very hard |
|---|---|---|---|---|---|
| Lecture | | | | | |
| Dialogue | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Project-based learning | | | | | |
| Problem-based learning | | | | | |
| Self-based learning | | | | | |
| Innovation/student challenges | | | | | |
| Others (the ones you named above in Question 18) | | | | | |

**Do you possess skills for trending areas like project proposal writing or applying for funds (like for CDF, CEEC in Zambia), and Agricultural Support Loans?**

☐Yes ☐ No

Comment:

| |
|---|
| |

**Co-Design Practices**

**Practice of involving users, researchers and facilitators in developing a prototype or solution to the problem**

**Are you familiar with the concept of co-design in education?**

☐Yes ☐ No

Comment:

| |
|---|
| |

**Would you be willing to participate in co-design practices for enhancing entrepreneurship education?**

☐Yes ☐ No

Comment:

| |
|---|
| |

**Do you involve entrepreneurs in entrepreneurship teaching?**

☐Yes ☐ No

Comment:

| |
|---|
| |

**If yes, kindly, name some of the entrepreneurs**

**Do you visit companies with the students?**

☐Yes ☐ No

Comment:

**If yes, kindly name some companies the students visited?**

**Do you invite visitors from companies in your entrepreneurship courses?**

☐Yes ☐ No

Comment:

**Do you enable visits to incubators?**

☐Yes ☐ No

Comments:

**If yes, kindly name the incubators visited**

**Do you guide students to get in touch with various entrepreneurial specialists?**

☐Yes ☐ No

Comment:

**Do you discuss the business plan with the students?**

☐Yes ☐ No

Comment:

**Do you enable students to conduct marketing activities for companies?**

☐Yes ☐ No

Comment:

**If yes, explain some of the marketing activities conducted**

**Does your University have some Entrepreneurship promoting infrastructure which the students can use?**

☐Innovation lab ☐ Computer rooms ☐ Meeting rooms ☐ Accelerator

☐Business incubator ☐ Other:

**Are there any challenges for teaching entrepreneurship in your University?**

☐ Yes ☐ No

**If yes, kindly name the challenges**

| |
|---|
| |

**Suggest ways of improving entrepreneurship training in the university**

| |
|---|
| |

**THE END**

## 4 Community Members Questionnaire

The **SmartVille** project is dedicated to Developing Sustainable and Entrepreneurial Villages through Educational Living Labs in Namibia and Zambia. As a part of the project, we focus on exploring community approaches to entrepreneurship skills and learning in Zambia and Namibia. For this purpose, we will collect data in communities through surveys. All data will be handled anonymously and used solely for research purposes, adhering to the General Data Protection Regulation (GDPR) guidelines.
For more information please visit: www.smartvillelivinglabs.com

**Background**

**Name of the interviewer:**

**District:**

**Ward:**

**Town or Community name:**

**Gender:**
☐ Male ☐ Female
**Age:**
☐ 30 years and below
☐ 31 - 40 years
☐ 41 - 50 years
☐ 51 - 60 years
☐ above 60 years

**Education level:**
☐None ☐ Literacy ☐ Primary ☐ Secondary ☐ College certificate ☐College diploma
☐ University degree

**Indicate your household size:**

**Status in the community:**
☐Leader ☐ Ordinary member
☐Other (specify):_____

**Are you engaged in any business venture?**
☐ Yes ☐ No

**If yes, state the type of business**

| |
|---|
| |

**If no, state your main source of income in the community**

| |
|---|
| |

**Do you follow a specific strategy to grow your business or your source of income, if applicable?**
☐Yes ☐ No

**If yes, please describe it, including specific principles or approaches:**

| |
|---|
| |

**Are there challenges that you face in your business or activities for your source of income?**
☐ Yes ☐ No

**If yes, kindly state the challenges**

| |
|---|
| |

**How do you deal with these challenges?**

**Skills possessed**

**What kind of entrepreneurial skills do you use for your livelihood? Indicate how you acquired each skill in the table below**
Please name the most important (up to 5 skills)
(For example agricultural, business, accounting, planning, marketing, construction, repairing, driving, other...)

| Skill | How skill was acquired | | | | | | |
|---|---|---|---|---|---|---|---|
| | Self-acquired | Job on training | Trained by an NGO (name NGO) | Trained by College (name college) | Trained by university (name university) | Learned from family or community | Other sources (name sources) |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**Which of the skills that you have listed above do you frequently use?**

| |
|---|
| |

**Of the skills that you have listed as frequently used, how relevant are those skills for your business or livelihood in the community?**

| Skill listed as frequently used | Highly relevant | Moderately relevant | Least relevant |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Of the skills that you have listed as possessed, are there skills that you are not using at the moment?**

☐Yes ☐ No

**If yes, indicate the skill and the reason for not using it in the table below:**

| Skill which you are not using at the moment | Reason for not using the skill at the moment |
|---|---|
| | |
| | |
| | |
| | |
| | |

**Of the skills that you have listed as possessed, are there skills that you would want to be retrained for improvement?**

☐Yes ☐ No

**If yes, indicate the skill and area of improvement needed in the table below:**

| Skill which you need for retraining | Area of skill improvement |
|---|---|
| | |
| | |
| | |
| | |
| | |

**Given the economic state of the country, are there any new skills you would like to be trained in?**

☐Yes ☐ No

**If yes, indicate the skills you would want to acquire now and the reason for that skill in the table below**

| New skill which you want to be trained in | Reason for this skill |
|---|---|
| | |
| | |
| | |
| | |

**If no, please provide reasons why.**

| |
|---|
| |

**How frequently do you use digital platforms like WhatsApp, Facebook, websites, Zoom, or Teams?**

☐Never ☐ Once a month ☐ Few times a month ☐ Once in a week ☐ More than once a week ☐Daily

**What devices do you primarily use for accessing digital content?**

☐ Phones ☐ Personal Computers ☐ Tablets ☐ Public computers

☐Other:

| |
|---|
| |

**Would you want to be trained in the use of digital devices like personal computers, smartphones, laptops, and tablets, and the use of digital tools like WhatsApp, Facebook, Zoom, Google, email, and website applications?**

☐Yes ☐ No

Comments:

| |
|---|
| |

**If skills are offered to you using online means, would you be willing to participate?**

☐Yes ☐ No ☐ Depends

Comments:

| |
|---|
| |

**If "no", why?**

| |
|---|
| |

**What kind of entrepreneurial ambitions / dreams / ideas do you have?**

| |
|---|
| |

**What are the main obstacles that stand in the way of implementing this idea?**

| |
|---|
| |

**THE END**