



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCES**

**DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES SCIENCES**

<b>QUALIFICATION: BACHELOR OF NATURAL RESOURCES MANAGEMENT (NATURE CONSERVATION)</b>	
<b>QUALIFICATION CODE: 07BNTC</b>	<b>LEVEL: 6</b>
<b>COURSE CODE: MEE 620S</b>	<b>COURSE NAME: METHODOLOGY OF ENVIRONMENTAL EDUCATION</b>
<b>SESSION: NOVEMBER 2019</b>	<b>PAPER: THEORY</b>
<b>DURATION: 3 HOURS</b>	<b>MARKS: 125</b>

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER (S)</b>	MS. S. BETHUNE
<b>MODERATOR</b>	MR. W. DIERGAARDT

<b>INSTRUCTIONS</b>
1. Answer ALL the questions. 2. Write clearly and neatly. 3. Number the answers clearly.

**PERMISSIBLE MATERIALS**

1. All written work must be done in blue or black in
2. No books, notes and other additional aids are allowed.
3. The article "*Edulink Teaching Namibia's far-flung Teachers*".

**THIS QUESTION PAPER CONSISTS OF SEVEN PAGES, (excluding this front page)  
And including a 2 page article "*Edulink Teaching Namibia's far-flung Teachers*"**

**QUESTION 1: PRESENTATIONS ON ENVIRONMENTAL ISSUES AND RISKS**

- 1.1 Based on the video narrated by Sir David Attenborough, on the "*State of the Planet*" that you watched in class, answer the following questions:
- 1.1.1 What are hedgerows and why are they important to maintain biodiversity in England. (2)
- 1.1.2 Name the extremely important southern African biome that has experienced a 40% loss of habitat? **Also** give the main reasons for this habitat loss. (2)
- 1.1.3 Explain where Dodos used to live and why they went extinct. (2)
- 1.2 Briefly discuss how our overuse of a particular marine resource is threatening the survival of the African penguin that lives on Namibia's offshore islands. (2)
- 1.3 On your Kunene excursion you noted severe erosion. Discuss the main cause of this erosion **and** how it can lead to desertification. (2)

**[10]****QUESTION 2: TRENDS IN ENVIRONMENTAL EDUCATION**

- 2.1 What is the aim of Environmental Education? (3)
- 2.2 Consider the EE activity described below, say which **educational approach** has been used, **motivate** your answer **and** give the role of the teacher: (3)

Wait at least two weeks after good rains to do this lesson. Divide the learners into small groups and take them out of the class room to where there are several rainwater pools. Let each group spend at least 20 minutes observing what is in the pools. Give each a small net and a glass jar to collect what they find. Each Learner must observations their pool well then sketch what they find and draw a map of the pool studied in his/her notebook. Then ask them the following questions:

- How many different creatures do you see?
- How many legs does ach creatures have?
- Which more familiar creatures do they resemble?
- How do they swim?
- Where in the pond does each occur?"

- 2.3 Based on your experience with the Grade 4 learners at Daan Viljoen discuss **four** advantages of voluntary, outdoor education (with its links to liberal humanist education). (4)

**[10]**

### QUESTION 3: EFFECTIVE COMMUNICATION, CRITICAL THINKING AND BARRIERS

- 3.1 Recall the **two different posters** in your lecture room, designed as resource material by the Environmental Education Centre at the *CCF the Cheetah Conservation Fund*. These two posters are clearly targeted at junior school and secondary school learners respectively. Use examples of **three** topics covered in each poster and the layout of the posters to explain how each is targeted to its audience. (8)
- 3.2 Recall the video, “*12 Angry Men*”, where the main character, the architect, Mr. MacArthur, has difficulty persuading the other jury members to critically assess the evidence.
- 3.2.1 Write a paragraph to name **and** explain **five** of the most common **communication barriers** (also called blinders) that make communication difficult. **Give an example** of a character that is influenced by each kind of communication barrier in the video. (10)
- 3.2.2 Describe **two** critical thinking skills the **Jewish stockbroker** used to find out if there was any “reasonable doubt” about the guilt of the young accused. (2)

[20]

### QUESTION 4: ORAL COMMUNICATION

- 4.1 What is meant by the term “rapport” and explain **two** ways to achieve it? (3)
- 4.2 Based on what you know about the Cheetah Conservation Foundation (CCF) that you visited on MEE excursion. Prepare a short, **interactive, 5 slide** presentation to present to **Grade 4** learners in Otjiwarongo about their very successful guarding dogs programme. Touch on how these dogs help prevent Human- Wildlife conflicts, keeping the cheetahs safe while helping farmers to live with predators. Draw an outline of each slide, give the headings and the main text points. Sketch or describe the illustrations you use. (10)
- 4.3 Say how you will make sure that your presentation on the guarding dogs is: (4)  
**Focused** on your target group, **interesting, interactive** and promotes **action**.

[17]



## QUESTION 5: WRITTEN COMMUNICATION

- 5.1 Read the article “*Edulink Teaching Namibia’s far-flung Teachers*” published in this year’s edition of *Conservation and the Environment in Namibia* (2)
- 5.1.1 Critically assess the structure of the story told in the article: In your **own words**, explain what it is that **attracts** the reader, what make the article **interesting** and **easy** to read, if it has a clear message, what that **message** is, and finally what the **benefits** of this teaching initiative are. (5)
- 5.1.2 Write the reference to the above article correctly in **APA Style** (2)
- 5.2 You have failed one subject and want to repeat this subject while doing your Work Integrated Learning internship next year. You need permission from your Head of Department to do both at the same time. Write a Memorandum to request permission, explain your situation and make a practical recommendation. (7)

[14]

## QUESTION 6 EFFECTIVE MEETINGS

- 6.1 Describe **two** main tasks of the treasurer on a committee? (2)
- 6.2 a) What is the role of an extension worker at community meetings? (2)  
b) What is definitely NOT the role of an extension officer at a community meeting?
- 6.3 What is an AGM, who attends and when? (3)
- 6.4 Based on your visit to #Khoadi //Hoas Conservancy, **list three** matters that the Conservancy manager, Ms Lorna Dax, told you need to be approved by the registered conservancy members at the AGM of the Conservancy. (3)

[10]

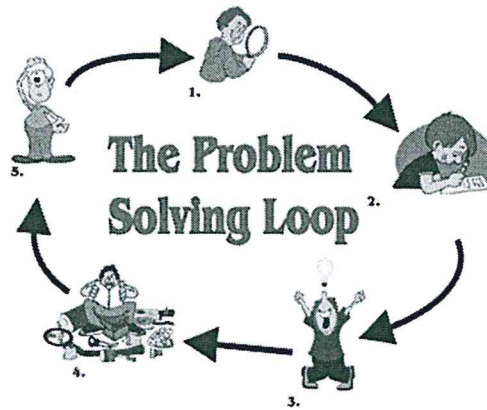
## QUESTION 7: WORKING WITH COMMUNITIES

- 7.1 What is the aim of extension work? (2)
- 7.2 You work for the EHRA, PEACE project where you run workshops to help ensure that elephants and communities live peacefully together by teaching people how to avoid human-elephant conflict. Give **four** reasons why going out to speak directly to the village headmen living alongside the Ugab River will be a good way to introduce EHRA and assess what EHRA can do to assist communities. (4)

7.3 As an experienced MET extension officer in the Zambezi Region, a new staff member asks you for tips to make sure that her next visit to a fisherman in the Salambala Conservancy is successful. List **five** tips you have found useful to guide her. (6)

7.4 One of your roles as an IRDNC extension officer responsible for helping communities deal with lion conflicts in you area, is to help them with decision-making and finding their own solutions to the challenge of living with lions. (8)

Use the problem-solving loop given below, to help you to also recall **8 steps in their logical sequence** that you would follow to help the community reach a good, practical decision. Remember to add the three missing steps.



[20]

**QUESTION 8: GROUP EXTENSION METHODS**

Indicate which group extension method would be best suited to each situation and briefly explain why.

8.1 Scientists from all over the world who are working on the impacts of Climate Change need to meet to discuss their latest findings. (2)

8.2 You are an extension officer working with the Okavango River Basin Management Committee and you want to convince communal farmers in the Kavango Region that cutting trees along the riverbanks leads to deforestation, erosion and loss of important riverine habitats. (2)

8.3 The Environmental Education centre at NaDeet lets the learners prepare their own food using solar dishes and ovens. They want to promote the use of solar cookers to the wives of the farm workers living on the farms around NamibRand, to stop the chopping down of the few trees in the ephemeral rivers on the edge of the desert. (2)

- 8.4 Farmers in the vicinity of the Etosha National Park, and MET rangers need to inspect the park fences and address the issue of lions escaping from the park and killing livestock. (2)
- 8.5 The City of Windhoek wants to make the children in the city more aware about the need to save water. (2)
- 8.6 The MET has offered to reintroduce game into the Oskop Conservancy, but the conservancy committee first need to learn more about monitoring their rainfall, vegetation and game numbers using the events book system. (2)

[12]

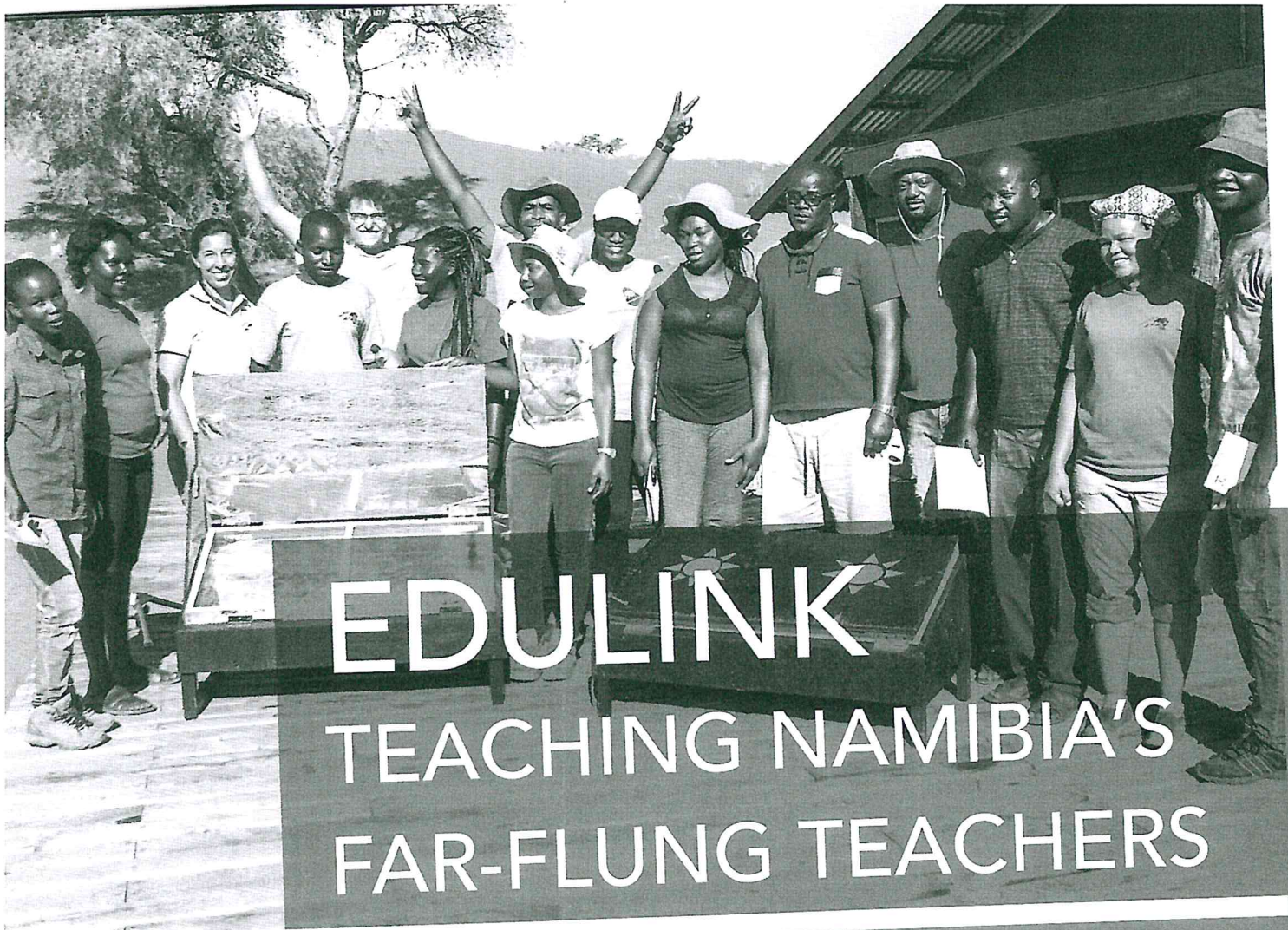
#### QUESTION 9: PARTICIPATORY RURAL APPRAISALS

- 9.1 What Resource mapping is and what can it show? (3)
- 9.2 Decide which PRA techniques or methods to use for each of the scenarios in the questions below **and** in each case explain **why** the selected method is the best one to use.
- 9.2.1 You are responsible for the women's issues at the #Khoadi //Hoas, you want to find out how much time each day women spend on gardening, household tasks, childcare, caring for the elderly and sleeping? (3)
- 9.2.2 Working with the Purros community you want to assess, the value of different tree species along Hoarusib River and the hills next to it, in terms of fodder, shade, firewood, perfume and habitat for birds? (3)
- 9.2.3 How grazing availability is dependent on factors such as rainfall, grazing pressure and fire, how after good rain, more grass grows but the fire risk is higher and how good veld management can improve grazing allowing more cattle to be stocked, but, that this in turn can have negative impacts on the soil, such erosion that removes fertile top soil. (3)

[12]

**TOTAL MARKS: 125**





# EDULINK

## TEACHING NAMIBIA'S FAR-FLUNG TEACHERS

by Holger Vollbrecht and Nathan Vyklicky

EduVentures Trust

Classrooms are key to teaching Namibia's nearly one million school-age children about conservation – yet Namibian teachers receive little training on environmental education. This new programme equips teachers with all-Namibian lessons to create a generation of environmental heroes, in every region of our vast country.

Early morning, Etosha National Park. You can smell the cool, humid tang of night in the savannah still hanging on the air. The twittering of red-eyed bulbuls wakes a group of francolins, who add their chatter to the breaking day. Vilho Absalom, a Ministry of Environment and Tourism warden at the Namutoni Environmental Education Centre, is already hard at work. He is setting up an outdoor workshop, which he usually leads as part of a three-day course for schoolchildren visiting the park. Today, though, is a little different. Instead of children, fellow environmental educators arrived the previous night, travelling from government institutions and non-profit organisations in every corner of the country. These specialist educators hail from places that represent all the landscapes of Namibia: Namib Desert, Waterberg, Kavango and Zambezi, Succulent Karoo and the Atlantic Coast. They are here to work on a new kind of nature education for the nation.

*Not all classrooms are five-star affairs*

These specialists were invited by Corris Kaapehi and Maria Johannes of EduVentures, the National Museum of Namibia's education

programme. Together, they form a new network which is collaborating to give Namibian teachers a new level of support nationwide. Corris describes what life can be like for the teachers they are trying to help: "In a remote school located in a village with only 150 people, their classroom is under a tree – you cannot even teach some of the practical stuff in the textbooks. For example, the books call for a microscope, but rural teachers have no access to this kind of equipment. So your classroom, after a while, becomes boring."

**Environmental education in Namibia: The story so far**

To be sure, excellent conservation curricula do exist. Following Namibia's independence, the Desert Research Foundation of Namibia created Enviroteach, focussing on outdoor activities for teachers. The Enviroteach Toolbox was recognised for its outstanding quality by the International Union for Conservation of Nature in their "Education and Sustainability: Responding to the Global Challenge" report. The challenge is getting these tools into the remote teachers' hands, and making sure they have sufficient training to use them once they





With guidance from the Ministry of Environment and Tourism warden, Vilho Absalom, educators gain hands-on experiences that help to sharpen their Education for Sustainable Development skills.

do. Environmental education remains profoundly neglected in rural Namibian schools.

More recently, Namibians have been innovating to reach young people in new ways. In 2018 the Namib Desert Environmental Education Trust (NaDEET) won one of three international UNESCO-Japan Prizes for Education on Sustainable Development, for teaching immersive, hands-on sustainable living at their education centre in the NamibRand Nature Reserve. In another initiative the Think Namibia campaign hosts an online platform for young environmental activists and entrepreneurs. Since 2014, EduVentures has operated the Ombombo ("Butterfly") mobile classroom, a modified truck which travels to schools across the country, where it opens up into a fully equipped smart classroom that allows us to offer a five-day, mixed-method conservation programme with Internet, "bush cinema" and lab equipment.

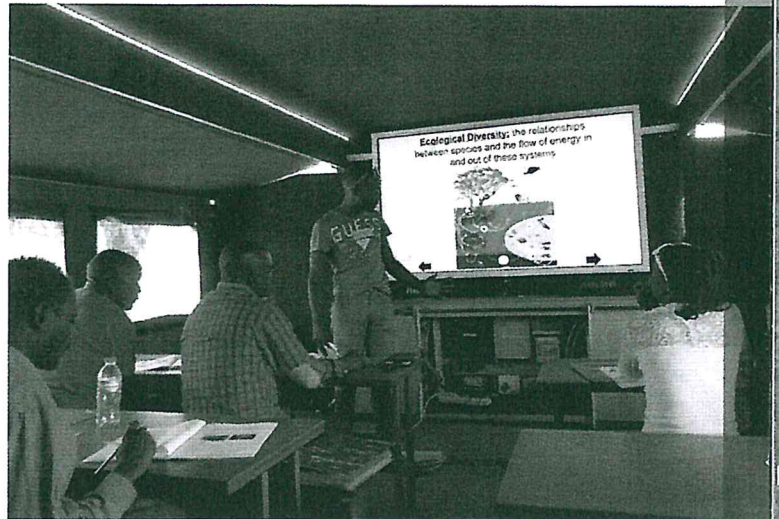
#### EduLink, connecting rural Namibian teachers

The EduVentures mobile classroom project struck an even deeper chord than expected. As one of the teachers said: "We want the same kind of education. Since I came here as a teacher, I have never really had an opportunity to revive my knowledge. I am isolated from all the other teachers – I am located here in the middle of nowhere." Corris at EduVentures responded to this and similar requests: "Why don't we set up a programme that targets the teachers? They spend the most time with the learners at school, and have the biggest influence."

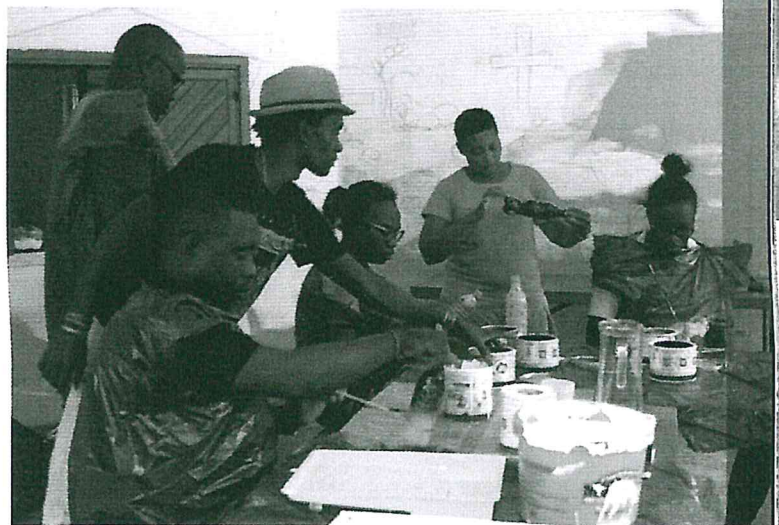
The new EduLink project was thus born in 2018, with support from Solidaritätsdienst International (SODI) Berlin. Specialists from nine Environmental Education Centres across Namibia were strategically selected to serve all 14 regions of the country. They now form a network to tailor conservation curricula for their regions and share them with hundreds of teachers from various towns and villages. These centres were already teaching learners on field trips: Why not teach teachers as well, to take lessons and skills back to their classes? The network brainstormed the most pressing issues facing Namibia, and EduVentures helped develop teaching aids that reflected these. Not only does this strengthen bonds and learning among Namibia's distant Environmental Education Centres, it connects rural teachers to the best the system has to offer.

Through EduLink, teachers can arrive at a participating centre and experience – many for the first time – cutting-edge methods such

as role-playing and arts-based education, smart boards and creative outdoor learning sessions using everyday materials. By playing themselves, the teachers learn how to use play with their learners; they return home with new ideas and practical ways to implement these ideas. Corris illustrates the process with one activity that the network developed: "In our 'bucket game' the teacher gets the learners to take buckets and collect different ecosystem components." He further explains, "The teachers take many informative booklets and handouts back with them, which they can refer to when they are back at their schools." Even more importantly, they are now linked to a group of teachers who have a common vision for educating young Namibians about their environment.

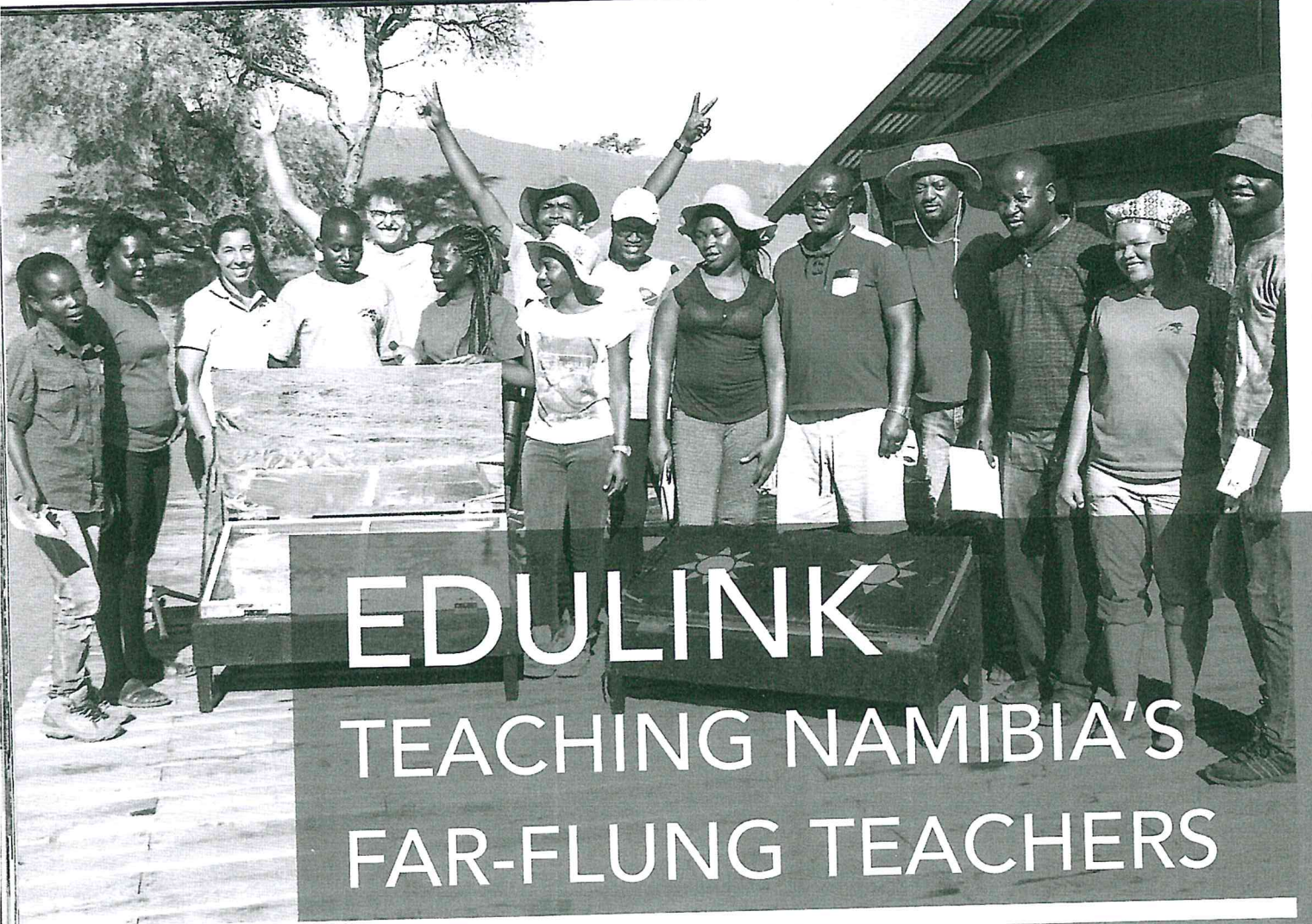


Teachers and conservancy members learn from Corris Kaapehi from EduVentures in the Ombombo mobile classroom during a 3-day pilot training session held in the George Mukoya and Muduva Nyangana Conservancies.



These teachers are learning from fine artist and educator, Hangula Werner, about arts-based environmental education that combines art and the environment in lessons that are interactive and fun. The workshop was hosted at the Okatjikona Centre in Waterberg National Park.





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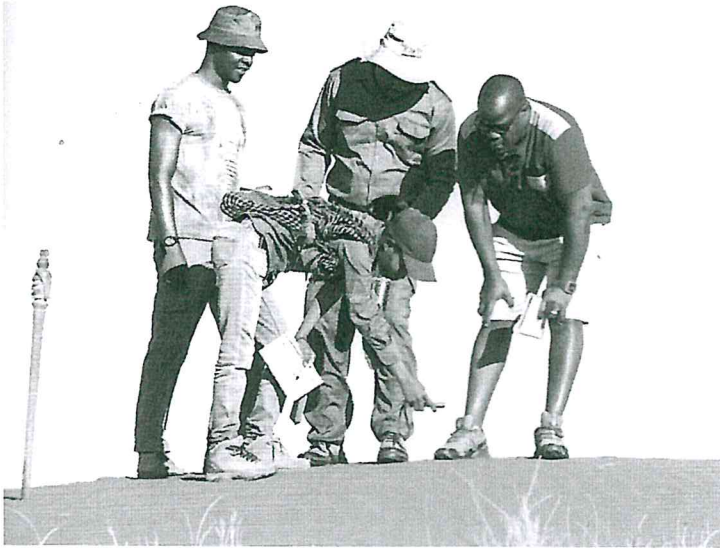
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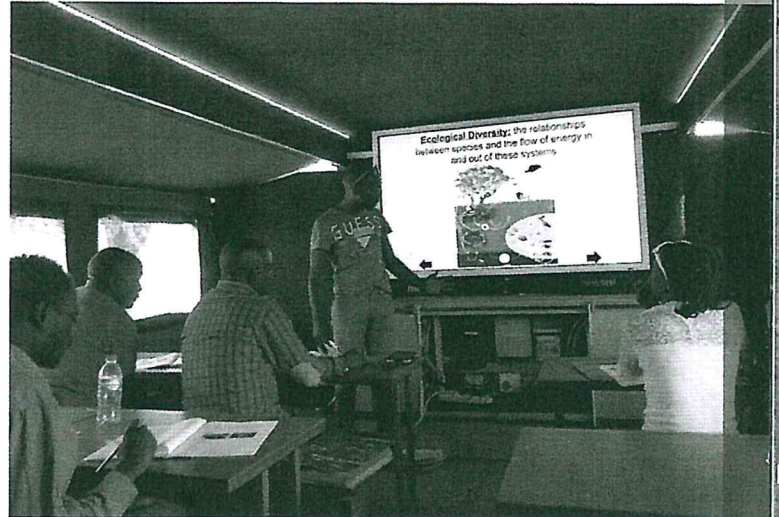
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