



NAMIBIA
UNIVERSITY
OF SCIENCE AND
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FACULTY OF NATURAL RESOURCES AND SPATIAL SCIENCE



Project Report



Assessing knowledge of upper primary school learners at NaDEET about conservation and protected areas in Namibia focusing on NamibRand Nature Reserve, Namibia

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Acronyms:

NaDEET Namib Desert Environmental Education Trust

NRNR Namib Rand Nature Reserve

EE Environmental Education

ESD Education for Sustainable Development

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1. Introduction

Humans and the environment are facing serious global problems like climate change, loss of biodiversity, waste and water stress. These are driven by the fact that the world's population is constantly growing and the lifestyle of the people on earth is changing drastically. Such lifestyles demand more energy and other resources like water and wood and at the same time is creating more pollution and waste (Keding 2016). Namibia is known as a country with a high variety of species, habitats and ecosystems. It is considered to be a biodiversity hotspot, which has a significant value for nature - based tourism (MET 2011). Article 95(L) of the 1990 Namibian Constitution requires us to practice “the maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future.” (MET 2014). The National Policy on Protected Areas, Neighbours and Resident Communities of 2013 states that “protected areas are the cornerstone of Namibia's conservation program”. Further they benefit the country economically at a local, regional and national level. The idea is that protected areas in Namibia do not only contribute to conservation but also to the national economic development (MET 2013).

Namibia has a high variety of protected areas including national parks, trans frontier conservation areas, conservancies, freehold management units, private game reserves, tourism conservancies and marine protected areas to protect its biodiversity (MET 2014). Forty-four percent of Namibia's landscape is under conservation, covering an area of 825,418 km² (Scott & Shaw 2017). Within this area national parks cover about 18% (MET 2014).

Sustainable living must be encouraged, promoted, taught and learned by Namibian citizens as well as on a global scale, this can be achieved by educating people about sustainable life skills and practicing sustainable development as a way to allow “every human being to acquire the knowledge, skills, attitudes and values necessary to shape a sustainable future” (UNSECO 2014). Environmental education (EE) or as is it also called Education for sustainable development (ESD) addresses these problems by raising awareness to help change people's attitudes and encourage them to take action for the environment and educate them how to live a more sustainable lifestyle. It can function as a catalyst to build a more sustainable future for all (UNESCO 2005).

Environmental challenges are already part of Namibia's social science and Natural science educational program in schools.

The 2015 Ministry of Education (B), Arts and Culture (MoEAC) Natural Science and Health Education Syllabus for grade 4 – 7 states the learners should “understand the value and vulnerability of, the care for and the sustainable use of natural resources in the natural environment, actions affecting the environment negatively and how these can be countered”.

In Grade 5 the problem of overgrazing and deforestation is discussed, and the learners should “realise that deforestation and overgrazing can have negative impact on the vegetation/environment” (MoEAC 2015 B).

They also learn about the sustainable use of animals by understanding “the value of Namibia’s wild animals and marine animals to the economy and the environment” (MoEAC 2015 B). They should be able to identify some common animals in Namibia’s National Parks, and their values to the environment. They also talk about endangered species in Namibia.

The Social Studies Syllabus for Grade 4 – 7 learners, aims to teach learners “to sustain a balance between people and their natural environment (ecological sustainability)” (MoEAC 2015 A). The learners should be able to recognize the challenges and risks Namibian citizens face if they do not care for and manage their natural resources. They should also “understand the relationship between natural resources and economic activities in Namibia, appreciate the importance and sustainable use of natural resources and explain the importance of natural resources and why it should be protected” (MoEAC 2015 A).

Looking at tourism and the environment the curriculum talks about “the benefits of preservation and conservation of tourist attraction areas” (MoEAC 2015A). The learners should be able to name Namibian laws regarding environmental protection and know which different animals are protected and where. They should “draw a poster or design a display with pasted pictures of conserved animals in Namibia and give examples of tourist attraction areas that are in danger of deterioration and suggest how it can be protected and conserved” (MoEAC 2015 A). The learners in Grade five also connect the topic of population growth with natural resources and should understand the relationship. They should be able to “state the importance of the preservation and conservation of our natural resources, describe ways in which our natural resources should be conserved and protected [...] [and] draw a poster on ways in which our water supply, animals and plants should be conserved and protected “(MoEAC 2015 A).

The syllabus does not include facts like the intrinsic value of nature, loss of biodiversity and endemism, which are important reasons for the protection of habitats in areas like NamibRand Nature Reserve.

The NaDEET education programme and the Namibian syllabus aim to educate Namibian learners about the importance of conservation and thereby align themselves with several environmental programmes, laws, policies and international treaties such as the National Policy on Protected Areas, Neighbours and Resident communities from 2013, Namibia’s Second Biodiversity Strategy and Action plan initiated in 2014, Namibia’s Vision 2030 and the Global Sustainable Development Goals.

In May 2018 NaDEET became the official educational partner of the NamibRand Nature Reserve (NRNR) and is in the process of planning an information area at NaDEET that will teach all visitors including tourists, Centre participants and dayvisitors about NRNR, the International Dark Sky Reserve, EE/ESD and protected areas.

2. Study Area

2.1 Namib Desert Environmental Education Trust (NaDEET)

The Namib Desert Environmental Education Trust, known as NaDEET, is located in the NamibRand Nature Reserve. It was founded as a non-profit trust in 2002 by Viktoria and Andreas Keding together with a group of concerned women from NamibRand and since 2003 hosted between 900 and 1000 people per year. It offers different programmes, mainly a Primary School and Secondary School programmes. It also gives educational programs for communities, youth groups and teachers. NaDEETs mission is “to protect the natural environment of Namibia by educating its citizens to practice a sustainable lifestyle” (NaDEET 2018). People that come to NaDEET are taught skills for sustainable living, such as how to reduce waste, how to save water, how to use renewable energy and about the biodiversity of the desert.

Over the last 15 years NaDEET has participated in the conservation of Namibia’s environment by educating it’s citizens about the environment and teaching them sustainable life skills. The educational programmes in NaDEET are linked to the school syllabus of the Ministry of Education. It builds on the knowledge of the learners and deepens it through practical, hands-on experience in terms of water wastage, renewable energy and biodiversity of the Namib Desert and NamibRand Nature Reserve.

NaDEET won the UNESCO-Japan Prize on Education for Sustainable Developemnt 2018.

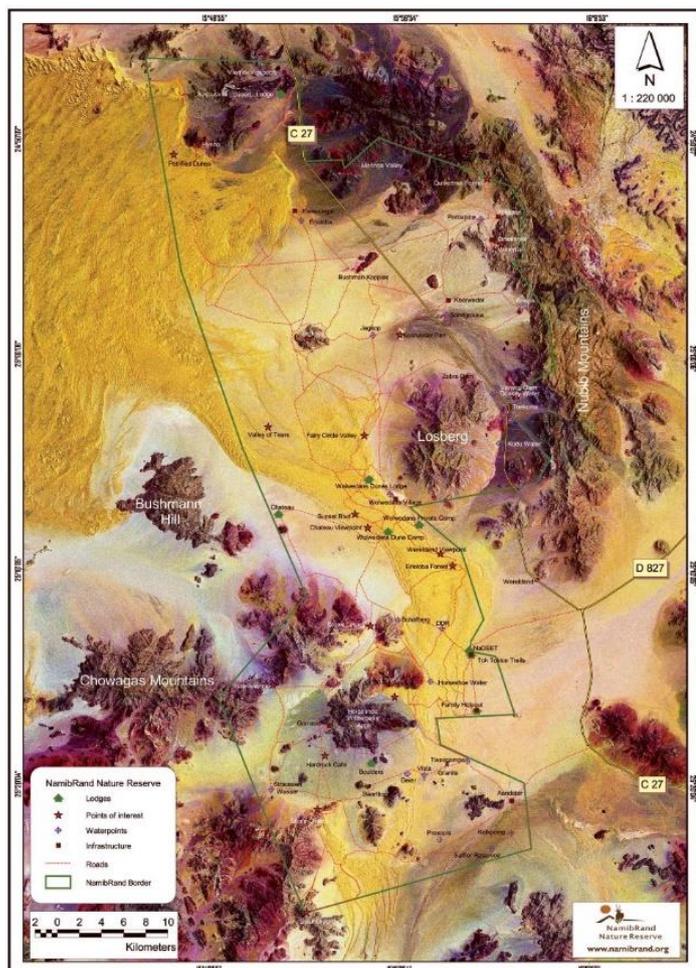


Figure 1: NamibRand Nature Reserve Source: NRNR

2.2 Namib Rand Nature Reserve (NRNR)

The Namib Desert is classified as hyper-arid area with less than 100 mm average rainfall per annum and high evaporation. It faces extreme temperatures that range from -11°C to 48°C . Due to the strong thermal gradients between the coast and the escarpments north-westerly winds blow mainly in summer and south-easterly winds in the winter month. The winds shape the dune landscape and are important for the desert ecosystem (Scott & Shaw 2017). The area gets most of its rainfall in the summer month but the annual mean at 95 mm/a calculated between 1967 and 2012 fluctuates greatly (Scott & Shaw 2017).

The Namib Rand Nature Reserve is the largest private nature reserves in Namibia. It is located in

the southern Namib and borders on the Namib Naukluft Park in the west and the Nubib Mountains in the east. This transition area between the Namib Desert and the Nama Karoo biome is also called Pro – Namib. It supports is about 240 species and is the first International Dark Sky Reserve in Africa (Scott & Shaw 2017). NamibRands strategic vision includes to “support education of decision makers, the general public and young people in the conservation of the environment and sustainable utilization of natural resources” (Scott & Shaw 2017).

As the largest private Nature Reserve in Namibia, NamibRand Nature Reserve seeks to achieve the United Nations Sustainable Development Goal (UNSDGs) number eleven, which is about the importance of environmental conservation that aims for at least 17% of the land on earth to be effectively conserved. It is not just conserving land but is also conserving biodiversity and is fighting against its loss. NRNR has rehabilitated the area within the park from over-grazed, over utilised livestock farms back to its natural state. Conserving the pro-Namib is especially important for the seasonal migration of wildlife. Since the reserve was founded, 1, 600 km of fences have been removed to give animals the chance to roam freely in the reserve. Also, locally extinct and endangered species like cheetah or giraffe have been successfully reintroduced.

3. Aims and Objectives

The overall aim of this study was to assess the knowledge gained by learners participating in the NaDEET programme about protected areas, especially NRNR and the importance of conservation. The project assesses the opportunities for environmental educational programmes that teach the learners more about protected areas, conservation and NRNR. The results contribute to NaDEET by providing recommendations for NaDEETs educational program. It also compares the knowledge of the learners based on their backgrounds and investigates if, after their experience at NaDEET, there was an increase in the knowledge and any change in the attitudes of the learners.

Therefore, to achieve this the aims and objectives were to:

1. Develop a questionnaire to collect data about the knowledge of the learners before and after participating in the NaDEET programme
2. Assess the knowledge of the learners about protected areas in Namibia focusing on NRNR before and after they participate in the NaDEET programm
3. Assess the knowledge of the learners about the Namib Desert and it’s biodiversity and why this area is especially worth protecting, before and after they participated in the NaDEET programme.
4. Determine if there was a difference in the knowledge of learners based on their background
5. Make a recommendation to NaDEET on ways to improve the educational programme with regard to conservation in the Namib Desert, protected areas in Namibia and NRNR.

3.1 Hypothesis

Hypothesis 1

H0: There was no significant difference between the knowledge of the learners about conservation in general and of the Namib desert and protected areas in Namibia before and after they visited NaDEET Centre.

HA: There was a significant difference between knowledge of the learners about conservation in general and of the Namib and protected areas in Namibia before and after the learners visited NaDEET Centre.

Hypothesis 2

H0: There was no significant difference between the knowledge of the learners based on the backgrounds.

HA: There is a significant difference between the knowledge of the learners based on their backgrounds.

4. Methods

To collect the data questionnaires were used and then analysed. As a pre-survey for developing the questionnaire the syllabus for upper primary (Grade 4 -7) was studied and evaluated to see what the learners are required to learn about environmental protection, awareness about environmental challenges and how to tackle them.

The questionnaire was divided in three sections. Section one focused on the knowledge of the learners about the Namib Desert, section two asked them about their knowledge on conservation and protected areas in Namibia. While section three focused on the mapping skills and basic knowledge about Namibia's geography. (See Appendix A)

The questionnaires were handed out to the learners on their first evening at NaDEET. The same questionnaires were given to them again on their last afternoon at NaDEET, after the main educational aspect of the programme is over. The participants were chosen randomly. In each group, 10 participants were questioned regardless of gender and age. To ensure anonymity and to have the possibility to still compare the performance of each learner before and after, the participants were given identity numbers and no name appeared on the questionnaires.

The first weeks in July have been used to develop and test different questionnaires with different kinds of questions. In the time of research, August to October, the content of the questionnaire was fixed and its data has been evaluated. 7 primary schools groups from 5 different primary schools have been given questionnaires.

For Hypothesis 2 schools have been separated in to three different categories, which were compared amongst each other. These categories are least advantaged schools, less advantaged schools and more

advantaged schools. Schools from rural areas with less resources of money have been defined as least advantaged, schools from smaller towns like Mariental have been defined as less advantaged and schools from cities with more monetary resources have been defined as advantaged schools.

Name of School	economic status of school	Number of participants
Rev. P.A. Schmidt	Least advantaged	20
P.J. Tsaitaib		
Danie Joubert	Less advantaged	10
DHPS	Advantaged	30
PSS		

Figure 2: Table school backgrounds

All data were recorded into an excel sheet and analysed qualitative and quantitative according to the questions. The statistical tests that were used were the t-test of equal variance and the one- way ANOVA to see if there are differences before and after the four - day NaDEET programme between the different schools and in general.

5. Results & Discussion

5.1 Objective 2: Change of knowledge about the desert and its biodiversity

Overall the knowledge of the learners about the desert increased about 30%. There is a significant difference in the performance of the participants in the pre- and in the post-questionnaire ($p = 4,96577E-07$, $p < 0,05$).

This can be presented in two examples:

Question one in Section one of the questionnaire asked the participants to tick whether they think that the desert is a dead place where no life is possible or a place full of life and give an explanation.

The following pie chart shows the change of the knowledge of the learners over the from the pre- to the post – questionnaire in this question:

33% of the participants increased their knowledge and ticked in the pre-questionnaire that the desert is a dead place but in the post-questionnaire they ticked that it is place full of life.

It can be assumed that the increase comes from the fact that the participants stay and live in the desert while attending the NaDEET programme they experience that

the desert is place full of live, that there are a lot of insects and small as well as bigger mammals as well as trees and grasses around.

In question 4 the participants were asked to give an example of an endemic animal living in the Namib Desert. 50 % of the participants increased their knowledge and could 'give a correct example of an endemic animal occurring in the Namib in the post- questionnaire even if they could not in the pre-questionnaire. Knowledge about endemic animals is not include in syllabus, (see Appendix B), so the learners are not supposed to know about them when they come to NaDEET. But NaDEET is teaching about them on their biodiversity dune - walks and doing small mammal and insect trapping with the participants. To know about endemics also helps to show the participants the necessity of conservation especially of places like the Namib Desert which is so unique because of its high endemism. It makes the Namib Desert even more a tourist attraction and shows that it is a place worth protecting.

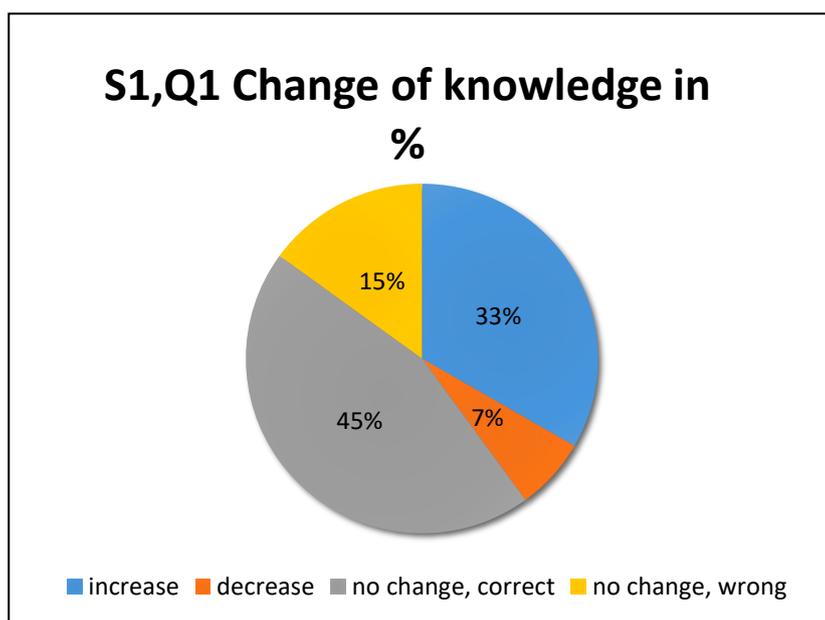


Figure 3: Section 1 question 1 change of knowledge in %

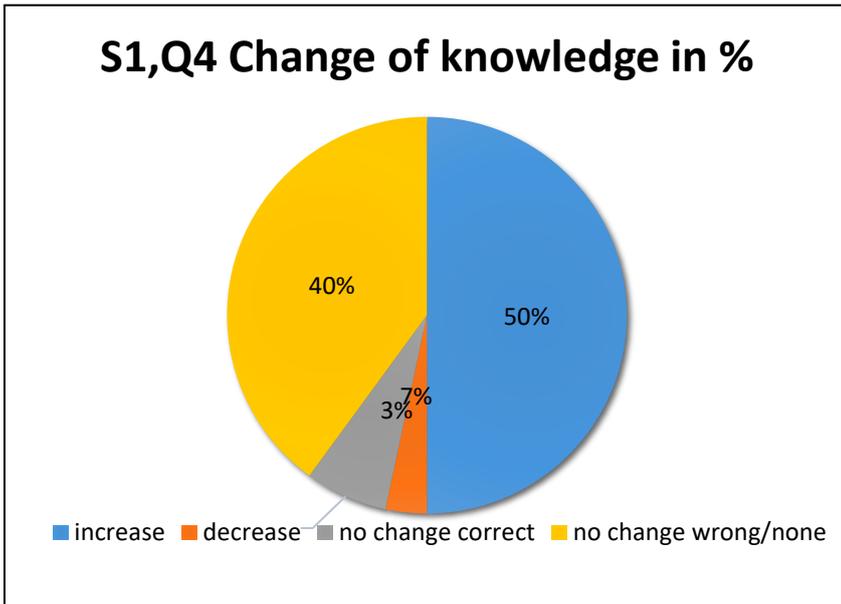


Figure 4: Section 1 question 4 change of knowledge in %

5.2 Objective 3: Change of knowledge about conservation and protected areas in Namibia

In section two there was no significant difference of the performance of the participants between the pre – and the post – questionnaires ($p = 0,12178238$, $p > 0,05$). That means that the knowledge of the learners did generally not increase about nature and protected areas in Namibia.

The following bar graphs give examples of questions that underline this result. In question 3 of the questionnaires the participants were asked to tick either they think that less than 10 %, about 40%, about 80% or none of Namibia’s landscape is under conservation.

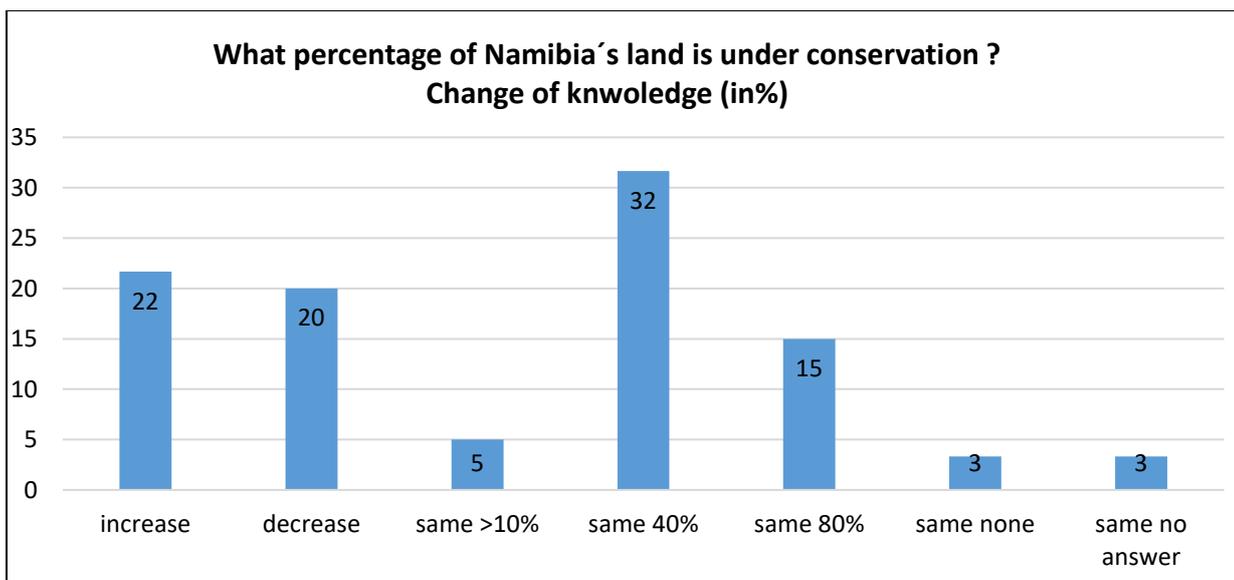


Figure 5: Section 2 question 3 change of knowledge in %

The bar chart shows that about 40 % of the participants either increased or decreased their knowledge, what leads to the interpretation that many of them just guessed in the pre- as well as in the post questionnaire.

However, 32 % of the participants ticked the correct answer that 40% of Namaibias’s landscape is under conservation in the pre- as well as in the postquestionnaire and 15 % ticked that about 80% of landscape are under conservation. Comparing this to the 5% who ticked 105 and the 3% who ticked none it shows that the perception of the learners about how much of Namibias’s landscape is under conservation rather positively think that it is a lot then just a little.

In Question four the participants were given the information that there are three different types of protected areas in Namibia. They were asked to give an example and explanation for each of them. Nearly none of them could give any explanation neither in pre- nor in the post – questionnaire. The examples they could give were mainly for a National Park which was with some exceptions always Etosha National Park. No one could name any conservancy.

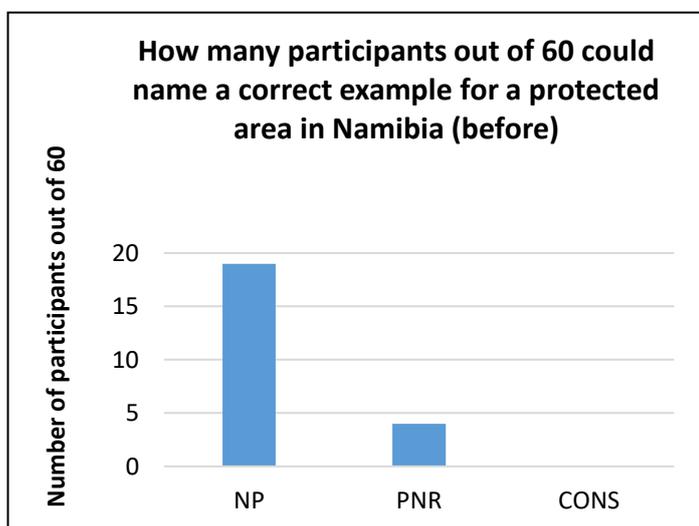


Figure 6: Section 2 Question 4 before

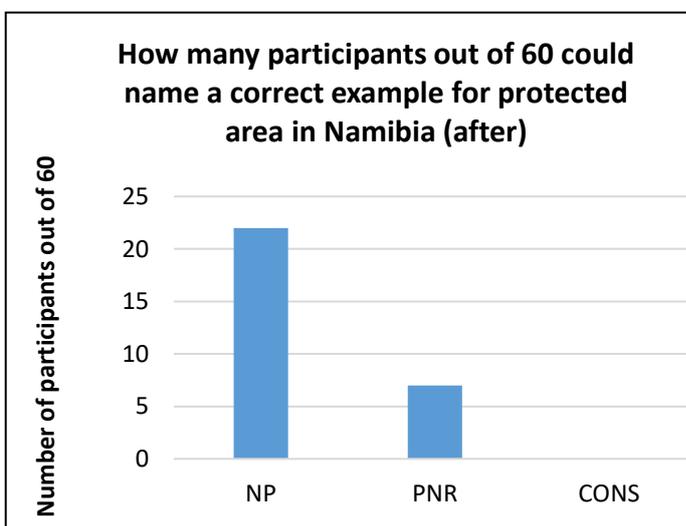


Figure 6: Section 2 Question 4 after

These graphs show that 78 % did not change their knowledge over the NaDEET programme.

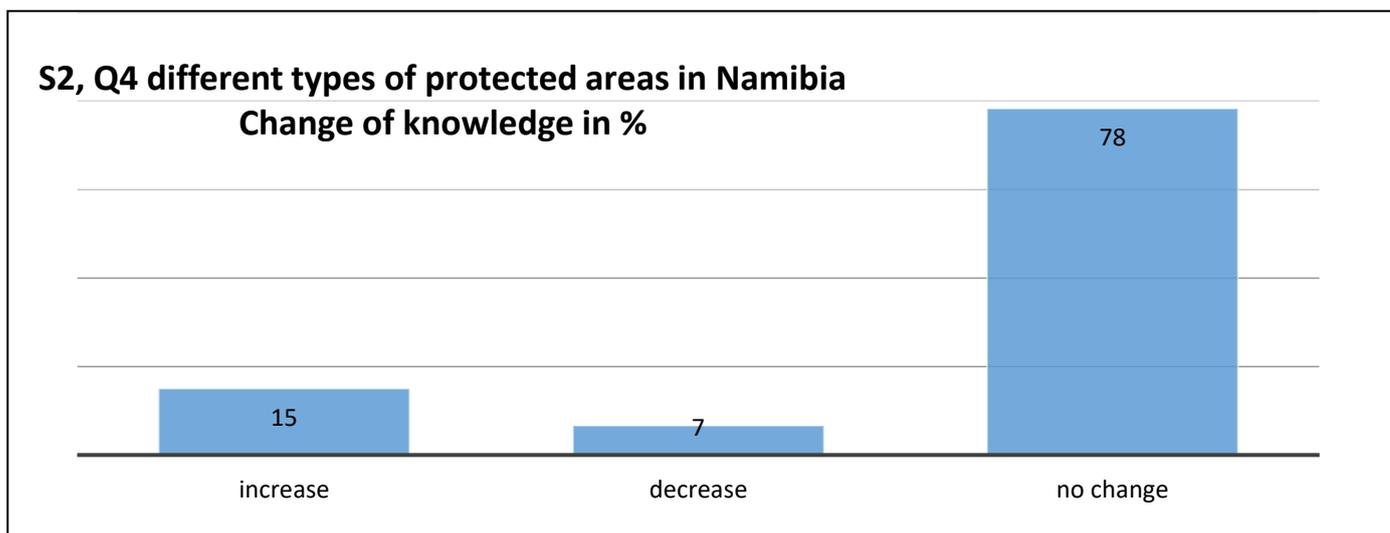


Figure 8: Section 2 question 4 change of knowledge in %

Information about protected areas and their function is also not included in the syllabus even if Namibia is worldwide a good example for large area conservation. In this case a clear gap of knowledge was identified.

The fact that none of the participants could name any conservancy could be due to where they all come from. They were all either from the hardap region, Marientaal, Windhoek or Swakopmund. No is from the northern part of Namibia where most of the conservancies are found.

5.2 Results and Discussion mapping skills

In Section 3 the practical mapping skills and the orientation of learners were tested. The Task they were given the task to colour in the map which parts of Namibia are desert, savannah and woodland. In the second part the participants were asked to locate their schools, NaDEET, Windhoek and protected areas they know on the map (see Appendix A).

The results did not differ at all from the pre- to the post- questionnaire. Most of the participants draw the same map twice. The performances between them differed a lot. Most of them were able to show where there is desert in Namibia. But many confused the savannahs and woodlands and could not locate their schools, NaDEET or Etosha. Many of them could locate Windhoek correctly.

Mapping is taught in the syllabus but just basics as knowing where to put a north arrow and how to read a scale and a key (see Appendix A). What the participants are lacking is the ability to locate themselves on a map and mapping of different biomes in Namibia. However, it is no wonder that the results from the pre- and the post-questionnaire didn't differ because mapping is also not taught in NaDEET and the section of the questionnaire was therefore just a tool to find out if this could be incorporated in the NaDEET-program.

5.3 Results and discussion comparing knowledge of learners from different backgrounds

The Statistical tests gave the answer that there are significant differences between the performance of learners from different backgrounds (ANOVA before $p = 1,18586E-12$, $p < 0,05$, ANOVA after $p = 1,11022E-16$, $p < 0,05$). Using the t -test the schools were compared between each other again, what gave the result that in the pre – questionnaire the least advantaged schools were significantly different from both the other schools ($p = 7,76712E-08$, $p < 0,05$). In the post – questionnaires the schools from all three backgrounds differed from each other and there was no outstanding one anymore.

This shows that even if the participants come with difference according to their backgrounds, they are all equally able to learn and to increase their knowledge. They all stay at the same place and live in the same environment four five days. So, they all increased their knowledge about the desert.

The performance of participants from different schools differed also according to different questions. The ones that could other examples for National parks in Question 4 (Section 2) where all from advantaged

schools. This let us assume that they have travelled more than learners from least advantaged schools and bin to other National Parks themselves.

6. Limitations

While conducting the research the main limitation was the language barrier. Many of the participants do not speak English at home and some learners are even taught in schools in a different language as English like Khoekhoegowab, German or Afrikaans. This caused misunderstanding of questions. Often the participants did not answer questions at all or the answer they gave did not relate to what was actually asked.

Another difficulty was to find a good timeslot to hand out the questionnaires to the 10 participants in the beginning and in the end of the week where they can concentrate or are not disturbed by the other learners. It was also a problem to find a place where they cannot copy information from posters hanging on the walls in the NaDEET classroom or from their neighbors.

Analyzing the data with excel doing statistical tests required that the data was coded in a right- and wrong-principle. That led to a loss of information analyzing the questionnaires.

Further, the researcher herself was one of the educational team, and for that reason the questionnaire is not entirely unbiased.

Using the questionnaires, a lot of data was collected, which contain a lot of interesting information. But the time for analyzing this data was limited. Hopefully the data can be used in the future by other students.

7. Conclusion

Overall the present NaDEET programme is good and practical and improves everyone's knowledge about the desert and it's biodiversity, environmental problems and sustainable living.

The NaDEET programme already includes topics that are not part of the syllabus like teaching about the intrinsic value of nature, loss of biodiversity and endemism, which are important reasons for the protection of habitats in areas like NamibRand Nature Reserve.

The knowledge of the participants about the desert increased over the programme about 30%. A gap of knowledge about conservation and protected areas in Namibia has been identified. This information is not taught in the schools and the participants did also not learn in the five day NaDEET programme much about it.

On arrival there was a difference between the knowledge of least advantaged schools and the others. But all gained knowledge equally well through the programme. For example, all participants knowledge about biodiversity increased but their mapping skills did not.

8. Recommendations

The gap of little knowledge about different types of protected areas and their use should be closed, especially now that NaDEET is the educational core for Namibia's largest private nature reserve. A section about conservation in Namibia, focusing on NRNR should become part of the future NaDEET programme.

The knowledge about the biodiversity of the desert was taught successfully. However, many learners confused NaDEET, NamibRand Nature Reserve and the Namib desert with each other. This difference between the three should be made clearer in the NaDEET programme. It could relate to teaching about different kinds of protected areas in Namibia.

There is opportunity for further evaluation of data, for example assessing the mapping skills of participants that come to NaDEET in connection with their knowledge about conservation to see if mapping would be helpful as a tool to teach about conservation.

9. Acknowledgements

Special thanks to Viktoria Keding as my Supervisor for assisting in the process of finding a research topic and creating the questionnaire and John Amanyanga who has always been there to help with problems and has been helpful with any kind of questions. Additional thanks go to the whole NaDEET team, supporting me in the time management to start the research. I also want to thank my tutors from NUST Shirley Bethune and Dr. Jonathan Kamwi for their knowledge and support with all the work.

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12. Appendix

Appendix A: Questionnaire

The following is a survey conducted for a university project. It is NOT a class test.

Please try to answer the best way you can. The survey will stay anonymous.

Thank you very much for your help!

Section 1: The Desert

1. A desert is (circle one)
 - a. a dead place, where no life is possible
 - b. a place full of life

Explain why:

2. What conditions created the Namib Desert?

.....

3. Why is the Namib desert a special and unique place?

.....

4. Give an example of an endemic animal found in the Namib Desert:

.....

5. Why is it important to protect endemic animals and plants?

.....

Section 2: Conservation and protected areas in Namibia

1. Name three dangers to Namibia's ecosystems:

A:

B:

C:

2. Why do we have to protect our ecosystems?

Explain:.....

.....

3. What percentage of Namibia's land is under conservation? (circle the **one** correct answer below)
- a. Less than 10%
 - b. About 40%
 - c. About 80%
 - d. None

4. In Namibia there are different types of protected areas like national parks, private nature reserves and conservancies. Explain what each one is and give an example:

A national park is

Example:

A private nature reserve is.....

Example:

A conservancy is

Example:

5. What does a protected area conserve? (Circle the correct answer)

- a. Farmers
- b. Biodiversity
- c. Tourists

6. What is the most suitable way to use the landscape of the Namib Desert:
(Circle as many answers as you think are correct)

- a. Livestock farming (cattle, sheep or goats)
- b. Crop Farming
- c. Eco-Tourism
- d. Hunting

7. How do Namibians benefit from protected areas in their country?

Explain:

8. What is threat to our night sky and how can we protect it?.....

9. Explain how we can protect it:



1. Section 3: Mapping

Colour the map of Namibia:

- a) Red for the Namib Desert
- b) Yellow for savannas that are usually dry with some rainfall in summer
- c) Green for woodlands that area in wetter areas with more rainfall and trees

2. Mark and label on the map:

- a) Your school
- b) NaDEET Centre
- c) Windhoek
- d) Etosha National Park
- e) NamibRand Nature Reserve
- f) Any other protected areas that you know

Appendix B

Syllabus study

Question Nr.	Question	Where found in Syllabus	Where covered in NaDEET programme
Section 1	The Desert		
1	A desert is a) a dead place where no life is possible b) a place full of life c) none of the above + explanation	NSHE Grade 4 3.1 Ecosystems - Know different ecosystems and be aware of their importance for human existence - describe characteristics of marine, desert and savannah systems	Dune Walk Nocturnal Trapping Super Greg Bock Movie
2	What conditions create the Namib Desert?	SS Grade6, 4.3 Climate and natural vegetation of the world Understand how climate influences the natural zones of the world SS Grade7 , 2.1 Weather and Climate Understand weather and climate	Dune Walk
3	Why is a desert a special and unique place?		Dune Walk
4	Give an example of an endemic animal in Namib desert!		Dune Walk
5	Why is it important to protect endemic animals or plants?		Dune Walk
Section 2	Conservation and protected areas		
1	Name three dangers to Namibia's ecosystem!	NSHE Grade 7 , 9. Environment 9.1 Ecosystems - understand the basic terminology of the ecosystem and know the characteristics of the three ecosystems common to Namibia - realise the importance of the interrelationship	Environmental Crisis Game, Movie Water and Fire

		<p>between biotic and abiotic factors in the local environment and understand ways in which human activities affect a local environment and influence the health of people in the community</p> <ul style="list-style-type: none"> - appreciate the importance of energy flow in an ecosystem and understand why this is 	
2	<p>Why do we have to protect our ecosystem? Explain:</p>	<p>NSHE Grade 5 9.Ecosystems 9.2 know ways that animals are depending on plants 9.3 know different ways in which plants are depending on animals</p> <p>NSHE Grade 6 6.4 Sustainable use of animals in Namibia 6.4.3: understand the value of Namibia's wild and marine animals to the economy and the environment</p> <ul style="list-style-type: none"> - identify some of the common wild animals in Namibia's national parks - explain the value of wild animals to the local and national economy - explain the value of wild animals to the environment - describe what is meant by endangered - name one of 	

		Namibia's endangered animals	
3	<p>What percentage of Namibia's land is under conservation?</p> <p>a) Less than 10%</p> <p>b) About 40%</p> <p>c) About 80%</p> <p>d) None</p>		
4	<p>In Namibia there are different types of protected areas like national parks, private nature reserves and conservancies. Explain what each one is and give an example:</p>		
5	<p>What does a protected area conserve?</p> <p>a) Farmers</p> <p>b) Biodiversity</p> <p>c) Tourists</p>	<p>SS -, Grade 7 8. Economic and Geographic Resources 8.3 understand the importance of the sustainability of natural resources</p> <p>NSHE grade 6 6.4 Sustainable use of animals in Namibia 6.4.3: understand the value of Namibia's wild and marine animals to the economy and the environment</p> <ul style="list-style-type: none"> - identify some of the common wild animals in Namibia's national parks - explain the value of wild animals to the local and national economy - explain the value of wild animals to the environment - describe what is meant by endangered 	

		- name one of Namibia's endangered animals	
6	<p>What are the most suitable ways to use the landscape of the Namib Desert?</p> <p>a) Livestock farming (cattle, sheep or goats)</p> <p>b) Crop farming</p> <p>c) Eco Tourism</p> <p>d) Hunting</p>	<p>SS -, grade 7 8. Economic and Geographic Resources 8.3 understand the importance of the sustainability of natural resources</p>	<p>The Super Greg Bock Movie is referring to Eco - Tourism in NRNR</p>
7	<p>How do Namibians benefit from the protected areas in their country?</p>		<p>Super Greg Bock (NRNR)</p>
8	<p>What is a threat to our night sky?</p>		<p>Astronomy + Movie about light pollution</p>
9	<p>Explain how we can protect it!</p>		<p>Astronomy + Movie about light pollution</p>
Section 3 Mapping			
1	<p>Colour the map of Namibia:</p> <p>a) Red for the Namib Desert</p> <p>b) Yellow for savannahs that are usually dry with some rainfall in summer</p> <p>c) Green for woodlands that are in wetter areas with more rainfall and trees</p>	<p>SS Grade 7 9. Regional Geography 9.1 Southern Africa: be familiar with southern Africa physical features - locate and identify on a map of southern Africa the following physical features:</p> <p>(a) 6 major rivers</p> <p>(b) Deserts</p> <p>(c) Swamps</p> <p>(d) Mountains</p>	
2	<p>Mark and label on the map</p> <p>:</p> <p>a) Your school</p> <p>b) NaDEET Centre</p> <p>c) Windhoek</p> <p>d) Etosha National Park</p> <p>e) NamibRand Nature Reserve</p> <p>f) Any other protected area that you know and give its name</p>		