



Pluriliteracies making meaning happen

A Pluriliteracies Approach to Teaching for Learning

Worksheets: Desertification



Anja Woike

www.ecml.at/pluriliteracies

Worksheet 1: Desertification

1. Work with your partner. One person reads the material M1-M7 and the other one watches the video on worksheet 2. Both take notes to sum up the content. Then present the most important information in your own words to your partner. Complete the table on worksheet 3.
2. Underline the phrases and structures in M1 and M3 which are typical for academic language. Note them down on worksheet 3!
3. Collect all causes and effects of desertification you can find in the material and the video. Complete the table on worksheet 4! Use colloquial language or academic language. Decide which register is more suitable for this task!

Desertification - A Natural Disaster

- 1 Desertification is a phenomenon that ranks among the greatest environmental challenges of our time. Although desertification can include the encroachment of sand dunes on land, it does not refer to the advancement of deserts. Rather, it is the persistent degradation of dryland ecosystems by human activities — including unsustainable farming, mining, overgrazing and clear-
- 5 cutting of land — and by climate change.

Desertification occurs when the tree and plant cover that binds the soil is removed. It occurs when trees and bushes are stripped away for firewood and timber, or to clear land for cultivation. Animals eat away at the grasses and erode topsoil with their hooves. Intensive farming

10 decreases the nutrients in the soil. If overgrazing occurs, lots of plants become lost. Soils become damaged through excessive use when farmers neglect or reduce fallow periods, which is necessary in order to sufficiently produce enough food to feed the population. This, in turn, causes soil to lose organic matter, limiting plant growth and reducing vegetation cover as a consequence. The bare soils are thus more

15 vulnerable to the effects of erosion.

The soil and the nutrients in the soil can be blown away by wind or washed away by rain. Wind and water erosion worsen the damage, carrying away topsoil and leaving behind a highly infertile mix of dust and sand. When violent winds and heavy downpours destroy the vegetation, which is then carried away by the sudden gushes of water, the harvests tend to be poorer and the livestock suffer; they eventually become

20 malnourished. As a consequence, the income of the rural communities diminishes. Land degradation brings about a decline or an end to soil productivity, vegetation, arable and grazing lands, as well as forests. In the most extreme cases, hunger and poverty set in and become both the cause and consequence of land degradation. High and sustained temperatures lasting for months with infrequent and irregular rainfall leads to drought with the effect that vegetation has difficulty growing. This natural phenomenon occurs when

25 rainfall is less than the average recorded levels. As a result, severe hydrological imbalances endanger production systems. Even long-lived plants that would normally survive droughts die. A reduction in plant cover also results in a reduction in the quantity of humus and plant nutrients in the soil, and plant production drops further. As protective plant cover disappears, floods become more frequent and more severe. Desertification is self-reinforcing, i.e. once the process has started, conditions are set for continual decline.

30 Drought and poor land management contribute to famine. Soil that has suffered desertification is not suitable for growing food; therefore, the amount of food being made will decline.

If the population is growing, this will cause economic problems and starvation. Desertification can cause flooding, poor water quality, dust storms, and pollution. All of these effects can hurt people living near an

35 affected region.



M2: Desertification (Source: diercke.de)

M1: Desertification - A Natural Disaster (Sources: un.org, edited; unesco.org, edited; desertificationb.tripod.com; botany.uwc.ac.za, edited)

Word Bank

encroachment = Vordringen
timber = Nutzholz
fallow = brachliegend
downpours = Regengüsse
livestock = Viehbestand
arable = anbaufähig
famine = Hungersnot

Worksheet 2: Desertification

Additional material for tasks 1-4.



M4: Wind Erosion (Source: environment.nsw.gov.au)



M5: Water Erosion (Source: diercke.de)



M6: Overgrazing (Source: wageningenur.nl)

1 Desertification is a global issue, with serious implications worldwide for biodiversity, eco-safety, poverty reduction, socio-economic stability and sustainable development. Drylands are already
5 fragile. As they become degraded, the impact on people, livestock and environment can be devastating. Some 50 million people may be displaced within the next 10 years as a result of desertification.

10 The issue of desertification is not new though — it played a significant role in human history, contributing to the collapse of several large empires, and the displacement of local populations. But today, the pace of arable land degradation is
15 estimated at 30 to 35 times the historical rate.

The United Nations Convention to Combat Desertification defines the term desertification as: land degradation in arid, semi-arid and sub-humid areas resulting from various factors including
20 climatic variations and human activities. Desertification is a dynamic process that is observed in dry and fragile ecosystems. It affects terrestrial areas (topsoil, earth, groundwater reserves, surface run-off), animal and plant populations, as well as
25 human settlements and their amenities (for instance, terraces and dams). It is caused by complex interactions among physical, biological, political, social, cultural and economic factors.

M3: Additional Information on Desertification (Source: unesco.org, edited)

Watch this video on desertification!

<https://www.youtube.com/watch?v=w9RxnuBiFbg>

Facts and Figures

- Land degradation affects 1,5 billion people globally.
- Due to drought and desertification each year 12 million hectares are lost (23 hectares/minute!), where 20 million tons of grain could have been grown.
- Desertification phenomena take place in 70% of all arid areas.

M7: Facts and Figures (Source: un.org, edited)

Word Bank

implication = Folge

pace = Tempo

amenity = Annehmlichkeiten

grain = Getreide

Worksheet 3: Desertification

Here you can solve task 1.

Student who read the texts	Student who watched the video

Here you can solve task 2. You may add other phrases and structures that come to mind!

Worksheet 4: Desertification

Here you can solve task 3.

Causes and effects of desertification

causes	effects

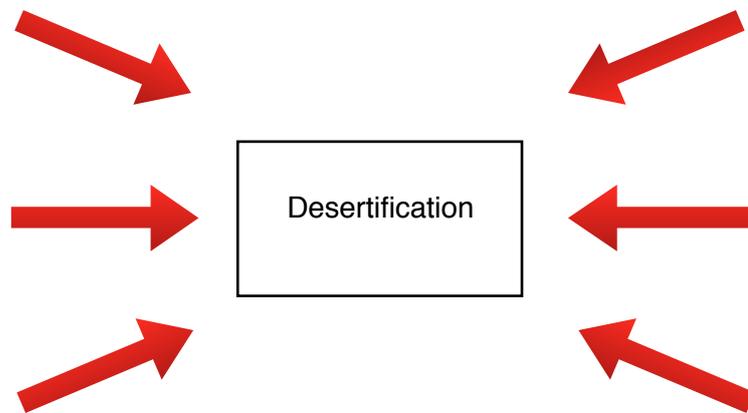
Worksheet 5: Desertification

4. Explain in colloquial language how desertification occurs by visualizing your thoughts and ideas. Use the given cause and effect scheme and the phrase bank to structure your findings.

Causes

Effect

Causes



Phrase Bank:

- this multiple cause structure shows
- A, B, C lead to D
- several causes lead to one effect
- because/because of (this)
- A and B trigger
- the effect is/ the effect is due to
- the effect only occurs if
- cause A may lead to
- as a result/ consequence
- this, in turn, causes
- the reason for this is
- as a result (of)/ therefore...
- this results in/ the outcome is...
- as a consequence

Worksheet 6: Desertification

- Find one keyword or phrase that sums up each box best (see M8). You can write in the boxes.
- Note which boxes describe causes of desertification and which describe effects of desertification.
- Visit the website provided below and play the matching game.
- Explain which causes lead to desertification and which effects desertification has. Therefore, create a scheme and use academic language! The given structure on worksheet 7 and the keywords and phrases from task 5 might help you!

Trees being chopped down, often used as firewood.

Soil becomes weaker at supporting plant life.

The number of people in the world getting bigger.

Deserts becoming bigger over time.

Animals becoming wiped out by loss of habit and/or feeding areas.

A permanent change in temperature and rainfall patterns.

A decrease in the amount of food produced.

Too many animals eating grass more quickly than it can grow.

M8: Cause or Effect? (Source: 3dgeography.co.uk)

Here you can solve task 7:

Visit this webpage, which shows human reasons for desertification:

<http://www.purposegames.com/game/desertification-game>. Match the phrases to the suitable pictures!

You have to point at the blue dots and click. Remember, time is ticking while you are playing this matching game! The person with the highest score and the best time wins!

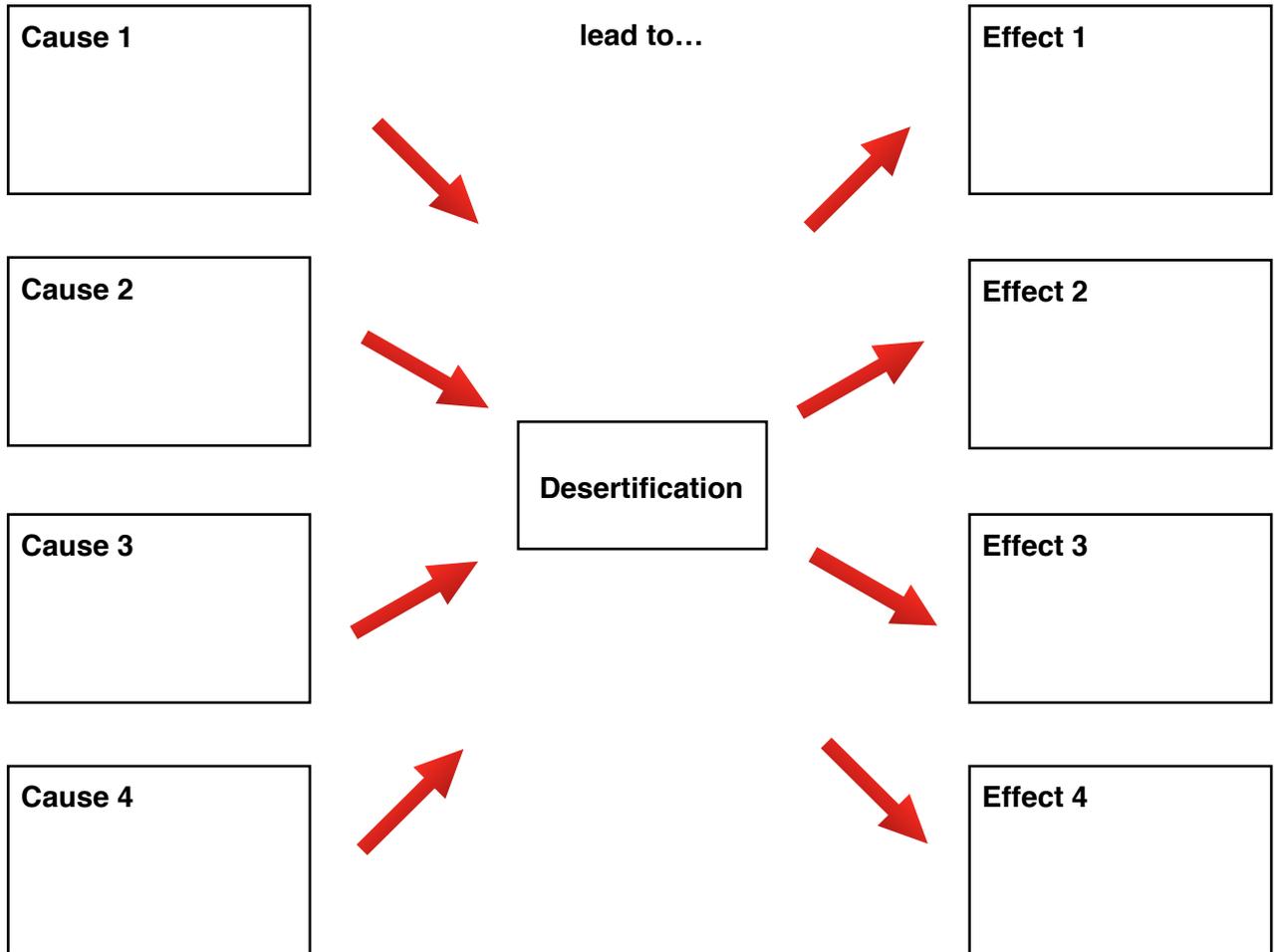


M9: Online Game (Source: purposegames.com)

Worksheet 7: Desertification

Here you can solve task 8.
You may add causes you have found in the online game! Use the phrase bank!

Remember to add links and arrows to connect and contrast the different effects and to refer to other aspects.



Useful phrases to write an explanation:

- firstly/ secondly...
- when/ if
- then
- due to/ because of (this)
- 1 initiates/ triggers 2
- this leads to...
- as a result (of)/ therefore...
- consequently/ inevitably...
- cause A triggers/ reinforces B
- multiple causes lead to
- this, in turn, causes...
- the effect is...
- therefore .../so

You might also:

- use modifiers &
- be as precise as possible!
E.g. *intense snow* instead of *snow*

Worksheet 8: Desertification

9. As we have seen, desertification can be seen not only as an effect, but also as a cause!

Explain the effects of desertification! You can use all the given material.

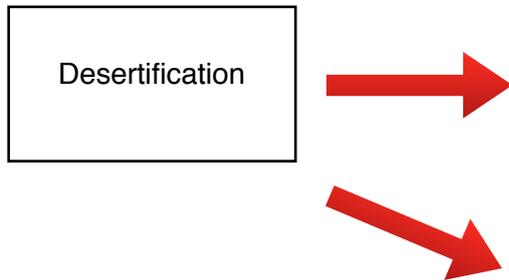
a) Firstly, visualize your ideas and findings in a cause and effect scheme. Use academic language. The given structure might help you.

b) Secondly, explain the effects of desertification in academic language. Write a text!

Here you can solve task 9a.

Cause

Effects



Phrase Bank:

- one cause leads to multiple effects
- the effects only occur if
- the effects depend on
- the effects are interrelated because
- this leads to
- A leads to B, C, D
- the effects are due to
- this, in turn, causes

You may also:

- add arrows to visualize links
- connect ideas
- contrast ideas

Worksheet 9: Desertification

Here you can solve task 9b.

Remember...how do you write academic language?

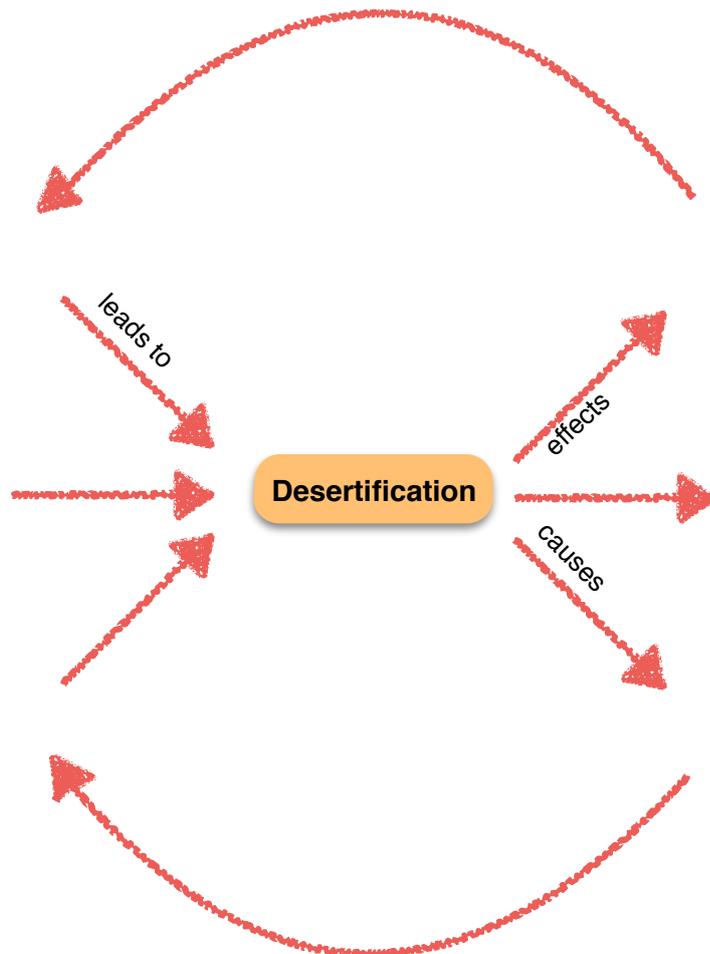
- use cause and effect schemes
- nominalize
- use terminology
- be precise
- use passiv voice

Phrase Bank:

- one cause leads to multiple effects
- the effects only occur if
- the effects depend on
- the effects are interrelated because
- this leads to
- because/because of (this)
- A leads to B, C, D
- the effects are due to
- cause A may lead to
- as a result/ consequence
- this, in turn, causes
- the reason for this is
- as a result (of)/ therefore
- this results in
- as a consequence

Worksheet 10: Desertification

10. In order to receive a good overview of the whole topic of desertification, create a concept map that contains all the causes and effects of desertification. Use academic language and a suitable visual realization! The given structure might help you!



Phrase Bank:

- this leads to/ effects/ causes
- multiple causes lead to
- this leads to multiple effects
- cause A may lead to
- the effects only occur if
- the effects/ causes are interrelated

- because/because of (this)
- as a result/ consequence
- this, in turn, causes
- this results in
- as a consequence

You may also:

- add arrows to visualize links
- connect ideas
- contrast ideas
- indicate how the different causes and effect are interrelated

Worksheet 11: Desertification

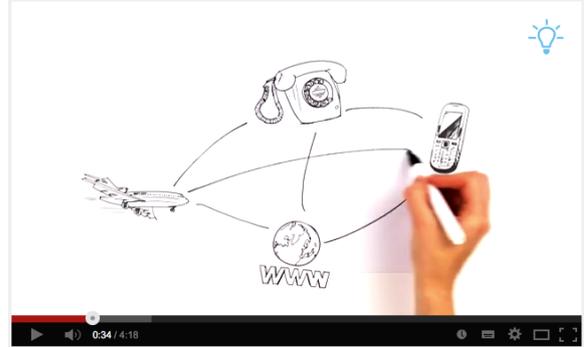
Unit Review

Group Activity

Let's make a film!

What kind of film?

A film that explains a topic by showing small images and drawings that are interconnected. While the images are shown, a speaker explains the topic by stating how these images are related. The connection between the images can be underlined using arrows and colors. Here you can watch an informational film that explains the topic of globalization!



M 10: Globalization easily explained by Explainity® (Source: youtube.com)

<https://www.youtube.com/watch?v=JJ0nFD19eT8&spfreload=10>

In order to make this film you need:

- a script that explains the topic
- a mobile phone that can record videos
- images or drawings you want to show (black and white or in color)
- a white desk pad/sheet of paper

First, form groups with three members each.

Tasks:

1. Then, create a script for a 3-4 min film in which you explain one of the following topics (see below). You may use additional material from the Internet. At least two groups should focus on one of these topics:
 - *Physical causes and effects of desertification*
 - *Human causes and effects of desertification*
 - *Preventive measures against desertification*
2. Collect and create images and drawings that visualize your topic.
3. Record the film!
4. Present your film to the class!
 - Three groups have created a film for one topic. Compare these films and the way they explained the topic.
 - Discuss which explanation was better and why. Consider the content (correct use of academic language, good explanations) and the artistic realization. The best film for each topic receives a prize.

Worksheet 12: Desertification

In your groups, each member has got a different task. It is important that you all work responsibly on your task. You need the products of your partners' work. Only if all members work efficiently, the film will be a success.

Tasks within groups

- You can create the concept map with your whole group to collect as many ideas as possible. The concept map serves as an aid for the explanation of your topic.

Preparation

- **Student A** collects all the material and ideas for the images and drawings.
- **Student B** cuts out the images and draws additional images. B thinks of possible connections and interrelations between the images.
- **Student C** considers the material, information and images A and B have found to write the script for the film. C also shows the images and drawings in the film while A speaks and B records the film.

then

Making the film

- **Student A** speaks and says the explanation.
- **Student B** records the film on a mobile phone.
- **Student C** shows the images and drawings in the film while A says the explanation and B records the film.

Additional information: In the film you need to break down the topic to the essential bits and explain the connections and interrelations of different aspects.

Therefore,

- speak loudly and clearly
- use academic language: Use nominalizations and scientific terms! Be precise and use passive voice!
- at the same time reduce complexity
- use cause and effect schemes
- visualize the different aspects by connecting the images with arrows. You may also use different colors.



Pluriliteracies making meaning happen

www.ecml.at

The European Centre for Modern Languages is a Council of Europe institution promoting excellence in language education in its member states.

ENG

www.coe.int

The Council of Europe is the continent's leading human rights organisation. It includes 47 member states, 28 of which are members of the European Union.

All Council of Europe member states have signed up to the European Convention on Human Rights, a treaty designed to protect human rights, democracy and the rule of law. The European Court of Human Rights oversees the implementation of the Convention in the member states.

